

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF NORTHERN KENTUCKY)
WATER DISTRICT FOR A CERTIFICATE OF PUBLIC) **CASE NO. 2025-00066**
CONVENIENCE AND NECESSITY AND APPROVAL OF)
FINANCING FOR THE CONSTRUCTION OF NEWPORT)
WATER MAIN REPLACEMENT PHASE 3 AND PHASE 4)

APPLICATION

Northern Kentucky Water District (“NKWD”), by and through counsel, petitions the Commission for an order authorizing for a Certificate of Public Convenience and Necessity (“CPCN”) for the construction of Newport Water Main Replacement Phase 3 and 4 **before the bids expire on June 4, 2025** pursuant to KRS 278.020 and approval of financing pursuant to KRS 278.300. In support of this Application, NKWD states as follows:

GENERAL INFORMATION

1. NKWD states pursuant to **807 KAR 5:001(14)** that its office address is 2835 Crescent Springs Rd., Erlanger, Kentucky 41018-0640. Its principal officers are listed in its current Annual Report, which is filed with the Commission as are its prior years Reports.
2. Pursuant to **807 KAR 5:001(14)**, NKWD states it is a non-profit water district organized under Chapter 74 and has no separate articles of incorporation; its web page is www.nkywater.org. Its contact officers and employees are:

Stacey Kampsen Vice President of Finance and Support Services 2835 Crescent Springs Road P.O. Box 18640 Erlanger, KY 41018 Phone: (859) 578 9898 Fax: (859) 578-3668	Tom Edge General Counsel and Director of Compliance, Communications, and Regulatory Affairs 2835 Crescent Springs Road P.O. Box 18640 Erlanger, Kentucky 41018 Phone: (859) 578 5457
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Email: skampsen@nkywater.org	Fax: (859) 578-3668 Email: tedge@nkywater.org
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3. A description of NKWD's water system and its property stated at original cost by accounts is contained in its Annual Report, which is incorporated by reference.
4. NKWD serves retail customers in Kenton, Boone and Campbell Counties and sells water at wholesale to non-affiliated water distribution systems in Kenton, Boone, Pendleton and Campbell Counties.
5. The Newport Water Main Replacement Project involves the replacement of approximately five miles of water lines with high incidence of breakage and low flows within the City of Newport. The project will also upgrade water mains to NKWD's minimum standard pipe size or further as needed to support recommended hydraulic capacity. Due to the size of this project, it was divided into four (4) phases that can be constructed independently of each other.
6. NKWD requested approval of a CPCN and financing for the first and second phase of the project in Public Service Commission Case No. 2025-00007. This matter is currently pending a determination by the Commission.
7. NKWD now requests approval of a CPCN for the third and fourth phase of the project and financing.

CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

8. NKWD proposes constructing new facilities as described in Exhibit A.
9. The proposed construction project identified in Exhibit A is scheduled to begin construction upon PSC approval and beginning in July 2025 and completed by June 2027. Board approval of the final bids for the project is included in Exhibit C. The bids for Phase 3 were opened February 27, 2025 and the bids for Phase 4 were opened on March 6, 2025. **The bids for both phases will expire June 4, 2025.**

10. This project was recommended as part of the Asset Management Program, an excerpt of which is attached as Exhibit A-3.
11. The construction is in the public interest and is required to allow NKWD to continue to provide adequate service to its customers. The project, its cost, need and other details are contained in Exhibits A -1 through A-7.
12. NKWD has received approvals from the DOW for the Plans and Specifications and funding for these improvements. See Exhibit B.
13. A copy of the Bid Tabulation for this project, along with the Engineer's Recommendation of Award and minutes of NKWD's Board of Commissioner's meeting approving the award are contained in Exhibit C-1 through C-3.
14. The project finance information for both Phase 3 and Phase 4 including: (i) customers added and revenue effect; (ii) debt issuance and source of debt; (iii) USoA Accounts; (iv) additional costs for operating and maintenance; and (v) depreciation costs and debt service after construction is contained in Exhibit D.
15. Information on NKWD's Mortgages, Bonds, Notes and Other Indebtedness is included in Exhibit E along with the Campbell County ARPA Recipient Agreement and Conditional Commitment Letters for State Revolving Loan F23-077S, Grant 21CWW025, Grant 22CWW223, and Grant 22CWW223 Supplemental.
16. NKWD's Financial Statements are included as Exhibit F and an Affidavit for this Application is included as Exhibit G.
17. No rate adjustment is being proposed as part of this Application.
18. The following information is provided pursuant to **807 KAR 5:001(15)(2)**:
 - a. Specifications and descriptions are in Exhibit A. The construction is in the public interest and is required to allow NKWD to continue to provide adequate service to its customers.

Facts relied on to justify the public need are included in the project descriptions in Exhibit A-1.

- b.** No new franchises are required. Copies of permits from the proper public authority for the proposed construction are in Exhibit B.
- c.** A full description of the proposed location and route of the proposed construction including a description of the manner of the construction and related information is in Exhibit A. The project will not compete against any other public utility in the area.
- d.** A Project Map is included as Exhibit A-2.
- e.** The entire Newport Water Main Replacement Project has a total budget of \$16,000,000 and will be bid and constructed as 4 separate phases. The total budget is made up of: **(i)** \$1,000,000 in Cleaner Water Program (CWP) grant funds appropriated by the Kentucky Legislature in 2021 – Senate Bill 36 (KIA Grant 21CWW025); **(ii)** \$2,403,872 in CWP grant funds appropriated by the Kentucky Legislature in 2022 – House Bill 1(KIA Grant 22CWW223); **(iii)** \$340,387 in funds from KIA Cleaner Water Grant Increase Request (up to 10% of original grant amount) (KIA Grant 22CWW223 Supplemental); **(iv)** \$3,200,000 in Campbell County ARPA funds; **(v)** \$4,000,000 in SRF Loan (\$1,598,681 of which is principal forgiveness) (SRF Loan F23-007S); and **(vi)** \$5,055,741 from a future Bond Anticipation Note as part of the District’s Five-Year Capital Budget, PSC No. 285 “Newport Water Main Replacement.”

A summary of the project costs for Phase 3 is provided below:

NEWPORT WMR – PHASE 3	
Engineering	\$66,390.00
Contractor's Bid	\$3,799,234.80
Misc. & Contingencies	\$369,375.20
TOTAL PROJECT COST:	\$4,235,000.00

A summary of the project costs for Phase 4 is provided below:

NEWPORT WMR – PHASE 4	
Engineering	\$53,235.00
Contractor's Bid	\$2,269,528.65
Misc. & Contingencies	\$227,236.35
TOTAL PROJECT COST:	\$2,550,000.00

Project financial information is outlined Exhibit D and funding source documentation including the Campbell County ARPA Recipient Agreement and Conditional Commitment Letters for State Revolving Loan F23-007S, Grant 21CWW025, Grant 22CWW223, and Grant 22CWW223 Supplemental are included

19. Pursuant to ~~Exhibit E~~ **807 KAR 5:001(12)(1)**, Financial operations information for the twelve-month period not less than 90 days prior is attached hereto in Exhibit F.

20. The following information is provided pursuant to **807 KAR 5:001(12)(2)**:

- a. No stock is authorized.
- b. No stock is issued.
- c. There are no stock preferences.
- d. Mortgages are listed in Exhibit E.

- e. Bonds are listed in Exhibit E.
 - f. Notes are listed in Exhibit E.
 - g. Other indebtedness is listed in Exhibit E.
 - h. No dividends have been paid.
 - i. Current balance sheet and income statement are attached as Exhibit F.
21. Pursuant to **KRS 322.340**, Engineering plans, specifications, drawings, plats and reports for the proposed construction or extension prepared by a registered engineer are signed, sealed and dated by an engineer registered in Kentucky are included as Exhibit A.

FINANCING

22. In addition to the issuance of a Certificate of Public Convenience and Necessity, to the extent that the Commission will permit and has not authorized in Public Service Commission Case No. 2025-00007, NKWD seeks Commission authorization and approval to execute and draw funds from State Revolving Loan F23-007S in the amount of \$4,000,000 for the construction of the Newport Water Main Replacement project. NKWD will not expend any of the proceeds from Loan F23-007S for any other phase of this project until that respective phase until it has obtained a CPCN for this project and either Commission authorization for such use of the loan proceeds or a Commission Order disclaiming authority to address NKWD's request for authorization. See Exhibit E for summary of KIA Loan F23-007S.
23. The entire Newport Water Main Replacement Project has a total budget of \$16,000,000 and will be bid and constructed as four separate phases. The total budget is made up of:
- a. \$1,000,000 in Cleaner Water Program (CWP) grant funds appropriated by the Kentucky Legislature in 2021 – Senate Bill 36 (KIA Grant 21CWW025);
 - b. \$2,403,872 in CWP grant funds appropriated by the Kentucky Legislature in 2022 –

House Bill 1(KIA Grant 22CWW223);

- c. \$340,387 in funds from KIA Cleaner Water Grant Increase Request (up to 10% of original grant amount) (KIA Grant 22CWW223 Supplemental);
- d. \$3,200,000 in Campbell County ARPA funds;
- e. \$4,000,000 in SRF Loan (\$1,598,681 of which is principal forgiveness) (SRF Loan F23-007S); and
- f. \$5,055,741 will be paid from a future Bond Anticipation Note as part of the District's Five-Year Capital Budget, PSC No. 285 "Newport Water Main Replacement."

24. NKWD desires to finance \$4,000,000 of the total project costs through a State Revolving Loan F23-007S. See Exhibit E-2 for the Conditional Commitment Letter.

25. The following information is provided as required by **807 KAR 5:001(18)(1)**:

- a. The information required by **807 KAR 5:001(14)** is contained within this Petition generally and within paragraphs 1-4 specifically as if fully rewritten herein;
- b. A general description of the property is contained in the NKWD Annual Report filed with the Public Service Commission and is incorporated herein. The attached financial information in Exhibit F are the latest available from NKWD.

No stock or bonds are to be issued as part of this case. NKWD desires to draw \$4,000,000 for this project from the previously authorized Stated Revolving Loan F23-007S of which \$1,598,681 will be credited as principal interest with the remaining \$2,401,319 bearing interest at a rate of 2.25 percent and an additional loan servicing fee of 0.30 percent, for a term of twenty years as more particularly described in Exhibit E-2. Project financial information is included as Exhibit D.

- c. The proceeds of the SRF Loan are to construct the project described in Exhibit A.
- d. A detailed description of property to be acquired, constructed, improved or extended is

included in Exhibit A and Exhibit B.

e. There is no refunding or refinancing proposed herein.

f. The notice to the state debt officer required by 807 KAR 5:001(18)(1)(g) is attached as Exhibit E-7.

26. The following exhibits are provided pursuant to **807 KAR 5:001(18)(2)**:

a. Financial Exhibits, pursuant to **807 KAR 5:001(12)**, are included as Exhibit F.

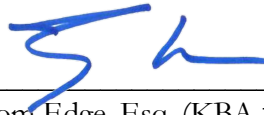
b. There are no trust deeds. All notes, mortgages and other forms of indebtedness are included as Exhibit E.

c. Maps and plans of property constructed or acquired are listed in Exhibit A.

27. Pursuant to **KRS 278.300**, this Application is made under oath through an Affidavit located in Exhibit G.

For these reasons, NKWD requests issuance of an order granting authority to construct and finance the facilities and for any other authorizations that may be necessary.

RESPECTFULLY SUBMITTED:



Tom Edge, Esq. (KBA #95534)

General Counsel

Cassandra Zoda, Esq. (KBA #96871)

Contracts, Claims and Procurement Coordinator

Northern Kentucky Water District

2835 Crescent Springs Rd.

Erlanger, KY 41018

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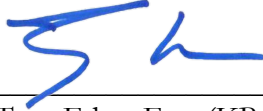
Email: tedge@nkywater.org

czoda@nkywater.org

Counsel for Northern Kentucky Water District

CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that this document was submitted electronically to the Public Service Commission on March 21, 2025 and that there are currently no parties that the Public Service Commission has excused from participation by electronic means in this proceeding.



Tom Edge, Esq. (KBA #95534)

EXHIBIT LIST

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EXHIBIT A ENGINEERING REPORTS AND INFORMATION

- (1) Project Description
- (2) 2008 Asset Management Program Excerpts
- (3) Project Map
- (4) Engineer's Opinion of Probable Total Construction Cost
- (5) System Hydraulic Model
- (6) Specification prepared and signed by a P.E.
- (7) Plans prepared and signed by a P.E.
- (8) Addenda

EXHIBIT B APPROVALS AND PERMITS (Franchises, Plan Review and Permit Status, Easements, Right-of-Ways, Construction Start and In-Service Date, Plant Retirements)

EXHIBIT C BID INFORMATION AND BOARD APPROVAL

- (1) Bid Tabulation
- (2) Engineer's Recommendation of Award
- (3) Board Meeting Minutes

EXHIBIT D PROJECT FINANCE INFORMATION

EXHIBIT E MORTGAGES, BONDS, NOTES AND OTHER INDEBTEDNESS

- (1) Schedule of Mortgages, Bonds, Notes and Other Indebtedness
- (2) Conditional Commitment Letter - State Revolving Loan F23-007S
- (3) Campbell County ARPA Recipient Agreement
- (4) Conditional Commitment Letter and Agreement – KIA Grant 21CWW025
- (5) Conditional Commitment Letter and Agreement – KIA Grant 22CWW223
- (6) Conditional Commitment Letter and Agreement – KIA Grant 22CWW223 Supplemental
- (7) State Local Debt Officer Notification – Future BAN

EXHIBIT F FINANCIAL STATEMENTS (Balance Sheet and Income Statement)

EXHIBIT G SUPPLEMENTAL INFORMATION

EXHIBIT H AFFIDAVIT



EXHIBIT A-1

PROJECT DESCRIPTION



NEWPORT WMR – PHASE 3

**Proposed Newport Water Main Replacement Project
(Phase 3 of WX21037311)
City of Newport
Campbell County, Kentucky
184-0914**

Project Description

Phase 3 of the Newport Water Main Replacement Project will install approximately 8,000 linear feet of 8-inch ductile iron and PVC water main along the following streets within the City of Newport, Campbell County, Kentucky:

- E. 3rd Street from Washington Avenue to Providence Way
- E. 5th Street from Washington Avenue to Park Avenue
- E. 7th Street from Monmouth Street to Washington Avenue
- E. 7th Street from Linden Avenue to Oak Street
- Roberts Street from E. 6th Street to 320' south of E. 8th Street
- Linden Avenue from Nelson Place to E. 9th Street
- Oak Street from E. 6th Street to E. 7th Street

Over a decade ago, District staff worked with the Newport Fire Department to develop a 5-mile water main replacement project in hopes of receiving grant funding. The project list developed by both parties which ultimately materialized into the 4 phases of the Newport Water Main Replacement Project, addresses cast iron water mains installed in the early 1900's with high failure rates and lower flows.

In just the last few years, with the help of the Campbell County Fiscal Court, the District was successful in receiving 1) \$1,000,000 in Cleaner Water Program (CWP) grant funds appropriated by the Kentucky Legislature in 2021 – Senate Bill 36; 2) \$2,403,872 in CWP grant funds appropriated by the Kentucky Legislature in 2022 – House Bill 1; 3) \$340,387 in funds from KIA Cleaner Water Grant Increase Request (up to 10% of original grant amount); 4) \$3,200,000 in Campbell County ARPA funds; and 5) \$4,000,000 in SRF Loan (\$1,598,681 of which is principal forgiveness).

Grant funding utilized on this project requires full lead service line replacement. In addition to the water main work, an estimated 225 lead service lines will be replaced from the water main to a point within the building, 6" past the first interior valve. All private service line replacement will be performed by a licensed plumber, inspected by the State Plumbing Inspector, and paid for by grant funds.

Bids for this project were opened on February 27, 2025 and are subject to acceptance for 97 days. Bids expire June 4, 2025.



NEWPORT WMR – PHASE 4

**Proposed Newport Water Main Replacement Project
(Phase 4 of WX21037311)
City of Newport
Campbell County, Kentucky
184-0915**

Project Description

Phase 4 of the Newport Water Main Replacement Project will install approximately 6,280 linear feet of 6, 8, and 12 inch PVC and ductile iron water main along the following streets within the City of Newport, Campbell County, Kentucky:

- Joyce Avenue from New Linden Road to Florence Circle
- 21st Street from Kentucky Drive to the end of the street
- Truesdale Road from Grandview Avenue to the end of the street
- Amelia Street from Home Street to Widrig Street
- Home Street from Amelia Street to 19th Street
- Grandview Avenue from McHenry Street to Central Avenue
- Clifton Avenue from McHenry Street to W. 13th Street

Over a decade ago, District staff worked with the Newport Fire Department to develop a 5-mile water main replacement project in hopes of receiving grant funding. The project list developed by both parties which ultimately materialized into the 4 phases of the Newport Water Main Replacement Project, addresses cast iron water mains installed in the early 1900's with high failure rates and lower flows.

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Grant funding utilized on this project requires full lead service line replacement. In addition to the water main work, an estimated 121 lead service lines will be replaced from the water main to a point within the building, 6" past the first interior valve. All private service line replacement will be performed by a licensed plumber, inspected by the State Plumbing Inspector, and paid for by grant funds.

Bids for this project were opened on March 6, 2025 and are subject to acceptance for 90 days. Bids expire June 4, 2025.



EXHIBIT A-2

2008 ASSET MANAGEMENT PROGRAM EXCERPTS

2008 Asset Management Program Update

November 2011

FINAL DRAFT



Report Prepared By:

Malcolm Pirnie, Inc.

8600 Governor's Hill Drive
Suite 210
Cincinnati, OHIO 45249
513-677-8380

4775-011



The Water Division of ARCADIS

4. Identified Needs and Improvements

4.1. Large Capital Projects in 5-Yr CIP

The results of the asset renewal and replacement planning were combined with evaluations of alternatives to meet the District's needs in areas of increased capacity and regulatory compliance. Areas of focus for this AMP Update included:

- Raw Water Supply
- Water Treatment Plants
- Pumping Stations and Storage Tanks
- Other (including laboratory equipment)

4.1.1. Raw Water Supply Evaluation

4.1.1.1. Ohio River Pump Station No. 2

In the 2004 Asset Management Plan, NKWD identified the Ohio River Pump Station No. 2 (ORPS2) as one of the Districts' assets that was most critically in need of improvements. The 100 plus year old pump station delivers raw water to the Memorial Parkway Water Treatment Plant (MPTP). Currently, ORPS2 contains three 10 MGD pumps with one of the three being inoperable. The remaining two pumps are able to provide the necessary 10 MGD firm capacity of raw water necessary at the MPTP. To accommodate their expanding service population over the foreseeable future, NKWD has decided to upgrade the capacity at the MPTP to 15-20 MGD at some point during the duration of this planning period. The timing of this improvement depends on available treatment plant capacity pending detailed hydraulic analyses. In order to meet that increased raw water demand and address the identified physical condition of the pump station, NKWD has several alternatives to satisfy these necessary improvements. This analysis will evaluate the raw water pumping alternatives and provide preliminary capital cost estimates associated with each alternative to assist NKWD in the critical task of improving their raw water intake asset in ORPS2.

The first alternative available to the District (Alternative A) would be a complete rehabilitation and upgrade of the existing ORPS2. The renovated pump station would house two 12 MGD pumps to meet off-peak pumping capacity needs and a third 12 MGD pump would be added giving ORPS2 a future firm pumping capacity of 24 MGD. The pump station's concrete and brick have significantly deteriorated over the years and rehabilitation would be challenging and unpredictable. Numerous amounts of structural and destructive testing would have to be performed to accurately assess the condition of

the existing superstructure. It is also not conceivable to assume the continued operation of this facility during the rehabilitation process. It is very possible that ORPS2 could be out of service for almost two years during construction. Because of the building's being listed as a historical site by the AWWA, any rehabilitation and upgrade efforts must retain the historical integrity of the structure. This alternative would result in larger design fees and disclaimers associated with the unpredictability and dangers present with the task of renovating a 100 plus year old facility. Further, by providing this summary of probable costs, Malcolm Pirnie and GRW are in no way conclusively stating that a rehabilitation of this facility can actually be accomplished.

**Table 4-1.
Probable Costs for Alternative A - Rehabilitate and Upgrade Existing
ORPS2**

Item	Cost
Structural renovation (floors, walls, roof, etc.)	\$10,800,000
Protective Cofferdams in River	\$1,600,000
Equipment (HVAC, electrical, etc.)	\$1,800,000
Misc. Improvements (bar screens, stairs, etc.)	\$2,900,000
Three 12 MGD Pumps	\$2,450,000
Back-up Generator	\$1,700,000
24" DIP from PS to Top of Hill	\$1,700,000
24" DIP from Top of Hill to MPTP	\$2,300,000
Design and Fees (40%)	\$10,100,000
Subtotal	\$35,350,000
Contingency (40%)	\$14,150,000
Total	\$49,500,000

The second alternative available to the District (Alternative B) would be to retire the existing ORPS2 and replace it with a new 24 MGD intake structure and pumping facility. The new pump station would also house three 12 MGD pumps giving the ORPS2 a firm pumping capacity of 24 MGD. A large percentage of the cost for this alternative would be in the rock excavation for the superstructure, the building of coffer dams, and the pumping equipment itself. This alternative would provide NKWD a new, reliable source of raw water in comparison to what is currently available. Since there is no retrofitting to an existing facility, this alternative provides minimal effect on current operations during construction. This alternative also provides more flexibility in design and offers a greater accuracy in estimating construction costs.

Table 4-2.
Probable Costs for Alternative B - Replace ORPS2 with a New Intake & Pumping Facility

Item	Cost
Raw Water Intake Structure and Equipment	\$22,400,000
Electrical Services Updates	\$500,000
Back-up Generator	\$1,700,000
24" DIP from PS to Top of Hill	\$1,700,000
24" DIP from Top of Hill to MPTP	\$2,300,000
Design and Fees (25%)	\$7,150,000
Subtotal	\$35,750,000
Contingency (25%)	\$8,900,000
Total	\$44,650,000

The third alternative available to the District (Alternative C) would be to retire the existing ORPS2 and supply MPTP from the existing Ohio River Pump Station No. 1 (ORPS1). Currently, ORPS1 is nominally sized for six 12 MGD pumps and supplies the District's Fort Thomas Water Treatment Plant (FTTP). The FTTP has a rated capacity of 44 MGD and the firm capacity of ORPS1 is 60 MGD. Due to site constraints, a future expansion of the FTTP has not been considered. If ORPS1 is also to supply MPTP with the future treatment capacity of 15-20 MGD, then an upgrade and possible expansion of ORPS1 would be necessary to circumvent any redundancy and reliability issues. The first option considered was to upgrade the size of the existing pumps at ORPS1 therefore raising the firm capacity at the pump station to supply raw water to both treatment plants. As it currently stands, the weight of each existing pump meets or narrowly exceeds the floor loading design capacity of the pump foundation at ORPS1. Therefore, due to floor loading issues, it is not feasible to just upgrade the size of the pumps currently in ORPS1 without considering methods to increase the floor loading capacity and pipe gallery modifications. This option was not further considered due to the assumption that it is not feasible to remove ORPS1 from service to accomplish the structural and piping modifications. The second option would be to build an addition onto the current ORPS1 structure that could house three 10 MGD pumps giving ORPS1 an additional 20 MGD of firm capacity. This would provide NKWD with the capacity and reliability to now provide MPTP with raw water from ORPS1. In addition to the upgrades at ORPS1, a transmission main would need to be constructed to supply MPTP with raw water from ORPS1. This option is the basis for the costs presented below in Table 4-3. This alternative will no longer provide the District with the redundancy of having two separate raw water intake pumping sources and would require significant hydraulic modeling to ensure proper pumping operations.

Table 4-3.
Probable Costs for Alternative C - Retire ORPS2 and Supply MPWTP from Existing ORPS1

Item	Cost
Pumping Station Structure Upgrades	\$17,250,000
Three 10 MGD Pumps	\$1,950,000
Changes to ORPS1 Gallery Piping	\$1,150,000
24" DIP from ORPS1 to ORPS2	\$2,700,000
24" DIP from ORPS2 to Top of Hill	\$1,700,000
24" DIP from Top of Hill to MPTP	\$2,300,000
Additional Back-up Generator	\$1,700,000
Electrical Services Updates	\$500,000
Design and Fees (25%)	\$7,300,000
Subtotal	\$36,550,000
Contingency (30%)	\$11,000,000
Total	\$47,550,000

All estimates do not include any costs associated with easement or land acquisition. The costs for Alternatives B and C are similar, but Alternative B is being recommended because it provides more redundancy and less disruption to operations at ORPS1. However, additional detailed evaluation would be needed to verify costs for these options.

4.1.1.2. Licking River Pump Station

The following level of service improvements were identified during a site visit to the Licking River Pump Station and are included in the 5-year CIP as 09-05.

- **Improvements to the Building Superstructure** - A large number of structural deficiencies that were identified in the 2004 AMP have been addressed. A number of small cracks were still visible in the concrete and brick on both the interior and exterior of the building. The current condition of the roof is unsatisfactory and operations staff indicated there is no efficient method to remove and service the station's pumps. Current openings in the roof to pull pumps are not sized properly creating difficulties when removed via crane on the Licking River. It is recommended that a new roof be installed with properly sized hatches to facilitate removal of the pumps along with a new 2-ton hoist. Hatches should double as sky lights to improve lighting inside the pump room. Ventilation inside the building is provided by one roof mounted fan and one wall fan with fresh air louvers located on the river side wall. Temperatures inside the building were slightly higher than normal with both ventilation fans running. The operations staff indicated some deterioration in some of the ladders used to maneuver alongside the exterior of the building. The District expressed interest in implementing a programmatic approach to building maintenance allowing a budgeted amount of money to be set aside each year to aide

in the rehabilitation efforts of the building. The estimated annual cost for building rehabilitation is \$40,000/year. The estimated cost for roof replacement is \$205,000.

- **Replacement of Sluice Gates** - Currently there are three sluice gates located at various points of the intake structure that have not been operated in several years, according to the operations staff, and need to be replaced. The majority of this work would need to be completed in wet conditions by divers. A capital cost was generated to replace the current gates as well as their corresponding electric operators. The estimated cost to replace the sluice gates is \$185,000.
- **Raw Water Main Relocation** - The aerial portion of the 16" raw water main that runs across the Licking River was previously identified as a security risk in a vulnerability assessment due to the lack of redundancy. However, discussion on feasibility of building this line suggests this is not a realistic budget and it may not be possible to build a buried main at this site (affordably). This project is being removed from the budget.
- **Variable Frequency Drive Pump Upgrade and Relocation** - NKWD and its operations staff indicated strong interest in moving the existing drives and MCC out of the pump station into a newly constructed, climate controlled electrical building located on the river bank side of the walk bridge (approximately 400 feet from the pumps). This change would also correspond with installation of variable frequency drives on the remaining two pumps. These improvements would improve reliability, provide operational flexibility and result in a facility that is more easily maintained. Also, by moving the existing drives and MCC outside of the pump room, this will improve any current deficiencies in ventilation. The estimated cost for upgrading and relocating the VFD are \$940,000. To perform this work the follow tasks are required:
 1. New VFD's to control current 150 Hp, 250 Hp and 350 Hp pump motors.
 2. New building to house the MCC and VFD drives.
 3. New MCC with service rated feed along with TVSS.
 4. New service feeds to the pumps out from the new building.
 5. Commissioning, tuning and debugging of the new drives.
 6. Spare parts needed for the VFD's.
 7. The demolition work needed for removal of the drives, conduit and wire, clean up, removal of the old electrical feed to the motors and MCC.
 8. Installation of the new motor (need to be at least a class F to handle the VFD requirements).
 9. New service feed to the new MCC panel.

4.1.2. Water Treatment Plant Evaluation

4.1.2.1. Memorial Parkway WTP

Regulatory

Regulatory needs at the Memorial Parkway WTP include the addition of granular activated carbon (GAC) for advanced treatment to meet the Stage 2 Disinfectant/Disinfection By-product (D/DBP) Rule and potentially a UV disinfection facility to meet the Long-Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), or to provide an additional disinfection barrier.

Several site alternatives were analyzed and the selected alternative was to locate the GAC facility in the footprint of Sedimentation Basins No. 5 and No. 6. The following assumptions for capacity and redundancy were made in developing the basis of design for the GAC facilities:

- The GAC facility will include 6 GAC contactors, GAC feed pump station, GAC backwash system, contactor-to-waste function, combination backwash waste/contactor-to-waste equalization basin, and carbon loading/unloading facilities.
- Normal operation will provide at least a 20-minute EBCT with all contactors in-service at a maximum production rate of 20 MGD.
- Duty and standby pumps are provided for each of the pumping systems required for these facilities.
- Provisions to enable incorporation of UV disinfection at the future treatment capacity of 20 MGD.

All six GAC contactors will have the same type of equipment and operational mode as shown in Table 4-4.

Table 4-4.
Design Criteria for GAC Contractors MPTP

Parameter	Value
No. of Contactors	6
Contactor Length (feet)	34
Contactor Width (feet)	15
Surface Area per Contactor (sf)	510
GAC Media Depth (inches to top of underdrain)	144
Design Flow per Contactor at Current Design Capacity (MGD)	3.3
Surface Loading Rate at Current Design Capacity (gpm/sf)	4.5

As the preliminary design progressed, a final opinion of probable costs was developed. The cost opinion is considered a Class 3 estimate in accordance AACE and has a predicted accuracy of -20% to +30%. The detailed cost opinion is shown in Table 4-5, and includes the UV disinfection facility.

**Table 4-5.
Opinion of Probable Project Costs-MPTP**

Item	Capital Cost (\$ Million)
GAC Facilities (Contactor building, site work, GAC PS, EQ Basin)	\$18.5
UV Facility	\$2.3
Contingency	\$4.1
Engineering (Legal, administration)	\$3.1
Total	\$28.0

Capacity

Capacity needs at the MPTP will include an upgrade of the plant capacity from a 10 MGD to 15 MGD or 20 MGD facility sometime between 2020 and 2030. Additional coagulation, sedimentation, filter, clearwell and pumpage capacity is anticipated.

Level of Service

During a recent site visit to the MPTP facility, a number of items were identified in need of repair. The findings of this visit are described in the following paragraphs.

- **Replacement of Raw Water Reservoir suction/discharge piping** - The District indicated, during our site visit, that the original suction/discharge piping located at both existing raw water lagoons is undersized therefore creating a hydraulic bottleneck that possibly limits the capacity of the treatment plant. This piping

supplies the raw water pump station by conventional gravity methods. It is recommended that the existing suction/discharge piping be upsized and replaced to accommodate additional capacity at MPTP. Estimated cost is \$285,000.

- **Dredging of Residuals in North and South Raw Water Reservoirs (2012-2013) -** The South Reservoir is currently being used as the raw water presedimentation basin and feeds the plants raw water pump station while the North Reservoir is currently being used only as a sludge and backwash holding basin. Based on comments by the operating staff, it is believed that the North Reservoir is over 80% filled with solids and when the water level reaches a certain height water spills over the dam separating the two reservoirs. Due to possible improvements to the Sludge Handling Facility and implementation of Advanced Treatment facilities at MPTP, the District expressed interest in postponing any possible improvements to the condition of both Raw Water Reservoirs past the year 2012.
- **Addition of Backup Generator -** The District expressed interest in providing MPTP with an additional back-up generator to provide the plant with a source of additional power reliability for the Actiflo® process and plant's general operations. Currently, the existing generator at MPTP only serves the lighting panels for the Filter Building, Chemical Building, Backwash Pump Station, and the Raw Water Pump Station. The generator is part of the Advanced Treatment Project AMP 09-03. The estimated cost for the addition of a backup generator is \$900,000.
- **Demolition or Conversion of Current Chemical Building -** The current condition of the Chemical Building's superstructure is unsatisfactory. Visible structural defects are numerous and a large portion of the buildings upper levels have been taken out of service. Over the past several years, the District has had numerous studies completed on the possible demolition of the existing building or possible conversion of the existing building to a single story maintenance shop. Either alternative would be an acceptable recommendation since the District seeks to take some type of action towards the condition of the existing building. A specific project has not been included for this work.
- **Replacement of valve actuators on Filters 4, 5, and 6 -** Currently, the District uses pneumatic actuators for all valves involved in the filter process at MPTP. NKWD has stated they would like to replace the current pneumatic valve actuators on Filters 4, 5, and 6 with electrically controlled actuators. This is part of Advanced Treatment Project AMP 09-03.
- **Sludge Process Equipment Rehabilitation (annual programmatic budget and AMP 17-02 & 29-01) -** The residuals handling system at MPTP is currently not in operation due to numerous problems associated with the process equipment in the Sludge Handling Building. Instead of a single project to rehabilitate the residuals handling system and place it back in service, the District expressed strong interest in supplementing projects with an annual programmatic budget approach to rehab/upgrade the existing inoperable facilities. An upgrade to the following process

equipment is recommended - Sludge Press Rehab, Conveyer System Rehab, Sludge Pump Replacement, Electrical Upgrade, and Dumpster Area Rehab. Once the recommended improvements are addressed and the facility is put back in service, the current practice of using the North Raw Water Reservoir for residuals storage may be eliminated. The estimated annual cost associated with rehabilitation of the sludge process equipment is \$120,000/year.

4.1.2.2. Fort Thomas WTP

Regulatory

Regulatory needs at the FTTP include the addition of granular activated carbon (GAC) for advanced treatment to meet the Stage 2 Disinfectant/Disinfection By-product (D/DBP) Rule and potentially a UV disinfection facility to meet the Long-Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) or to provide an additional disinfection barrier.

Several site alternatives were analyzed and the selected alternative was to locate the GAC facility adjacent to the existing laboratory building. The following assumptions for capacity and redundancy were made in developing the basis of design for the GAC facilities:

- The GAC facility will include 8 GAC contactors, a GAC feed pump station, GAC backwash system, contactor-to-waste function, combination backwash waste/contactor-to-waste/filter-to-waste equalization basin, and carbon loading/unloading facilities.
- Normal operation will provide at least a 20-minute EBCT with all contactors in-service at a maximum production rate of 44 MGD.
- Duty and standby pumps are provided for each of the pumping systems required for these facilities.
- Provisions to enable incorporation of UV disinfection at the current treatment capacity of 44 MGD.
- A GAC supplier will provide virgin carbon to the site and truck the spent GAC off-site.

All eight GAC contactors will have the same type of equipment and operational mode as shown in Table 4-6.

Table 4-6.
Design Criteria for GAC Contactors-FTTP

Parameter	Value
No. of Contactors	8
Contactor Length (feet)	44
Contactor Width (feet)	20
Surface Area per Contactor (sf)	880
GAC Media Depth (inches to top of underdrain)	144
Design Flow per Contactor at Design Capacity (MGD)	5.5
Surface Loading Rate at Design Capacity (gpm/sf)	4.3

As the preliminary design progressed, a final opinion of probable cost was developed. The cost opinion is considered a Class 3 estimate in accordance AACE and has a predicted accuracy of -20% to +30%. The detailed cost opinion in 2007 dollars is shown in Table 4-7, and includes the UV disinfection facility.

Table 4-7.
Opinion of Probable Project Costs-FTTP

Item	Capital Cost (\$ Million)
GAC Facilities (Contactor building, site work, GAC PS, EQ Basin)	\$33.5
UV Facility	\$2.8
Contingency	\$7.3
Engineering (Legal, administration)	\$5.4
Total	\$49.0

Capacity

There were no assets identified at the FTTP that required improvements to provide capacity for meeting future growth through the year 2030.

Level of Service

During a recent site visit to the FTTP facility, a number of items were identified in need of repair. The findings of this visit are described in the following paragraphs.

- **Repair of Concrete Flocculation/Sedimentation Basins #2 & #3** - Visual inspection of sedimentation basins #2 & #3 showed numerous areas of deterioration in the concrete and similar deteriorations were apparent in the corresponding flocculation basins. It is recommended that the District take the necessary measures to repair the concrete as part of capital improvement planning at FTTP before the condition worsens. The estimated cost for these repairs is \$900,000.

- **Improvements to Flocculation Process Equipment** - NKWD expressed interest in revising the current flocculation arrangement for three of the four existing basins. It is recommended that NKWD revise current flocculator drive arrangements in basins #1, #2 & #3 similar to the direct drive assembly in basin #4. The current two stage horizontal flocculator arrangement should be converted to a three stage vertical flocculator arrangement to alleviate current alignment issues, age, and system wear. The estimated cost associated with revising the drive arrangement on flocculation basins #1, #2 & #3 is \$71,500. The estimated cost associated with revising the flocculation paddle arrangement is \$42,500.
- **Addition of Protective Covers to all Four Sedimentation Basins** - NKWD expressed interest in the addition of protective covers over all four existing sedimentation basins at FFTP. This capital improvement will aide in blocking sunlight which is a proven and effective method for algae control. By covering the basins, it may no longer be necessary to feed copper sulfate to all four sedimentation basins. Upon further investigation, the cost to span the dimension with support members to cover the basin was higher than anticipated. This project will not be carried forward.
- **Replacement of Filter Backwash Tank** - During our site visit, NKWD indicated that the current condition of the underground Filter Backwash Tank is unsatisfactory and may still leak even after recent attempts to recondition the aging tank. The District expressed strong interest in replacing the existing underground tank with a slightly larger tank. A lower cost alternative, with less functionality, would be to make remedial repairs to the existing tank. The District may elect to cancel this project if the new backwash pumps installed with the Advanced Treatment Project are found to be reliable. The estimated cost for upgrading and replacing the Filter Backwash Tank is \$460,000.
- **Perform Comprehensive Hydraulic Analysis of FFTP** - NKWD expressed strong interest in completing a comprehensive hydraulic analysis of the operations at FFTP. There may be hydraulic bottlenecks that are preventing the Plant from operating at its optimal capacity. One area of concern that was specifically mentioned by the District was the Filter Influent Flume.
- **Replacement of Sludge Building Interior Process Equipment** - NKWD indicated that, even though there are no current operational issues with any of the existing sludge handling process equipment, the aging equipment is quickly approaching the end of its useful life and should be considered for scheduled replacement. Two new sludge belt filter presses, conveyor system, decant valves, and repairs to the dumpster room were all specifically mentioned by the District and are recommended to be addressed as part of the capital improvements at FFTP. NKWD recommended delaying the above mentioned capital improvements until the year 2012-2013 in order to concentrate solely on Advanced Treatment improvements in the near future. The estimated cost associated with replacing the sludge belt filter press is \$1,600,000 and

the estimated cost associated with replacement of the sludge press process equipment is \$270,000.

4.1.2.3. Taylor Mill WTP

Regulatory

Regulatory needs at the TMTP include the addition of granular activated carbon (GAC) for advanced treatment to meet the Stage 2 Disinfectant/Disinfection By-product (D/DBP) Rule.

Both basin-style and vessel-style contactors were investigated for the GAC facility to be located west of the current treatment processes at the TMTP. Vessel-style contactors were selected and the following assumptions for capacity and redundancy were made in developing the basis of design for the GAC facilities:

- The GAC facility will include 28 GAC pressurized vessels, GAC feed pump station, GAC backwash system, contactor-to-waste function, combination backwash waste/contactor-to-waste equalization basin, and carbon loading/unloading facilities.
- Normal operation will provide at least a 20-minute EBCT with all contactors in-service at a maximum production rate of 10 MGD.
- Duty and standby pumps are provided for each of the pumping systems required for these facilities.

Twenty-eight pressurized contactors will be provided. It is anticipated that the contactors will have the following characteristics as shown in Table 4-8.

**Table 4-8.
Design Criteria for GAC Contactors-TMTP**

Parameter	Value
No. of Contactors	28
Contactor diameter (feet)	10
Approximate Contactor height (feet)	22
Design Flow per Contactor at Design Capacity (MGD)	0.42

As the preliminary design progressed, a final opinion of probable costs in 2007 dollars was developed. The cost opinion is considered a Class 3 estimate in accordance AACE and has a predicted accuracy of -20% to +30%. The detailed cost opinion, which includes the UV disinfection facility, is shown in Table 4-9.

**Table 4-9.
Opinion of Probable Project Costs-TMTP**

Item	Capital Cost (\$ Million)
GAC Facilities (Contactor building, site work, GAC PS, EQ Basin)	\$15.3
Contingency	\$3.1
Engineering (Legal, administration)	\$2.3
Total	\$20.7

Capacity

There were no assets identified at the TMTP that required improvements to provide capacity for meeting future growth through the year 2030.

Level of Service

During a recent site visit to the TMTP facility, a number of items were identified in need of repair. The findings of this visit are described in the following paragraphs.

- **Replacement of Concrete Sedimentation, Flocculation, and Rapid Mix Basins -** Recent tests by a concrete testing company have validated the operations staff's concerns that both the north and south sedimentation basins are rapidly deteriorating. Visual inspection showed similar, but less severe, deterioration in the concrete of the adjoining flocculation and rapid mix basins. It is recommended that the District replace the concrete sedimentation, flocculation, and rapid mix basins as part of capital improvement planning at TMTP. The existing rapid mixer was last replaced in 1989 and should also be replaced with a new mixer as part of the basin replacement. The District has expressed interest in replacing the existing tube settlers in both basins but has elected to wait until replacement of the existing basins is completed. This project is combined with the Advanced Treatment Project. The estimated cost for replacing the concrete basins is \$3,405,000. The estimated cost for replacing the rapid mixer is \$4,500. The estimated cost for replacing the tube settler is \$235,000.
- **Replacement of Sludge Building Interior Process Equipment -** NKWD indicated that, even though there are no current operation issues with any of the existing sludge handling process equipment, the aging equipment is quickly approaching the end of its useful life and should be considered for scheduled replacement. A new belt filter press, conveyor system, decant valves, and repairs to the dumpster room were all

specifically mentioned by the District and are recommended to be addressed as part of the capital improvements at TMTP. NKWD recommended delaying the above mentioned capital improvements until the year 2014 in order to concentrate solely on Advanced Treatment improvements in the near future. The estimated cost for the sludge belt filter press replacement is \$800,000. The estimated cost for replacing the sludge press process equipment is \$175,000.

4.1.3. Pumping Station Evaluation

Regulatory

There were no regulatory improvements identified for any of the pump stations through the year 2030.

Capacity

A pump station capacity analysis was conducted as part of the Hydraulic Model Update, see Section 1 of this report.

Level of Service

Bromley Pump Station

During a recent site visit to the Bromley Pump Station, a number of items were identified in need of repair. These items are included in the R&R portion of the CIP. The findings of this visit are described in the following paragraphs.

- **Improvements to Interior of Pump Room Building** - Unlike at the Carothers Pump Station, the renovations to the Bromley Pump Station had not been completed at the time of our site visit. It could be assumed that similar renovations would have a similar impact on the capital improvement recommendations at this pump station. According to the operations staff, the Bromley Pump Station is at the top of the District's renovations list. The current condition of the interior of the building was fair and the staff indicated no problems with daily operations of the pump station. All pumps have been recently refurbished by NKWD staff. All three concrete pump support blocks were in poor condition, with significant concrete deterioration visible at the Pump #1 support block. All non-buried piping showed extensive corrosion and, according to the operations staff, is to be painted as part of the renovations program. Piping supports underneath control valves were either non-existent or crude pieces of wood and should be addressed. One of the three pump motors in use appeared to be much older than the other two pump motors. It is recommended to phase out the old pump motor in order to standardize the existing pump motors therefore minimizing spare parts. There was not an adequate method to maneuver

around the pump room without jumping over non-buried piping. In case of an emergency, this would present safety concerns. The District expressed interest in implementing a programmatic approach to building maintenance, above and beyond the existing O&M capital budget, allowing a budgeted amount of money to be set aside each year to aide in the rehabilitation efforts of the building. The estimated annual cost for building rehabilitation is \$10,000. The estimated cost associated with pump motor standardization is \$50,000

- **HVAC Improvements to Pump Room** - Ventilation within the pump room is provided by a single fan located in the ceiling of the pump room. Temperatures inside the pump room were well above normal, with the fan running, during summer month operation. It should also be noted that the discharge damper was disconnected during the site visit and should be addressed. It is recommended that at least one additional ceiling fan be installed to help improve cross-flow ventilation. The fans should be operable either by a local thermostat or by manual switch. The estimated cost for HVAC improvements is \$2,700.

Carothers Pump Station

During a recent site visit to the Bromley Pump Station, a number of items were identified in need of repair. These items are included in the R&R portion of the CIP. The findings of this visit are described in the following paragraphs.

- **Improvements to Interior of Pump Room Building** - Currently, NKWD is in the process of a systematic program of renovating and rehabilitating all of their distribution pump stations. The District did not divulge a schedule or criticality assessment but stated rather that the program is driven on an “as needed basis” and as O&M capital funds are made available. At the time of our site visit, the Carothers Pump Station renovations had recently been completed, therefore this pump station had little or no capital improvement needs. The current condition of the interior of the building was satisfactory and every piece of non-buried piping was painted recently and in fairly good condition. The restroom in the building was not in service and, according to the operations staff, has been that way for numerous years. The District expressed little interest in improving the operation of the stations lavatory.
- **Addition of a Back-up Generator** - NKWD expressed interest in providing this pump station with a back-up generator. Due to space limitations on the property this improvement might not be feasible. An existing generator at the FTTP will become redundant since a new generator is included as part of the recent Advanced Treatment project at that site. Therefore the old generator may possibly be moved to the Carothers Pump Station. There is discussion of also moving that same generator to service the TMPS or the Central Facilities Building. For the purposes of this planning document, it will be assumed that because of the space limitations at this site that a new nominally sized, portable generator will be purchased to satisfy this capital improvement. The estimated cost for the back-up generator is \$220,000

Dudley 1040 & 1080 Pump Stations

During a recent site visit to the Bromley Pump Station, a number of items were identified in need of repair. These items are included in the R&R portion of the CIP. The findings of this visit are described in the following paragraphs.

- **Improvements to Interior Process Equipment of Pump Room Building 1080 -**
The interior of the buildings was in overall good condition. All pumps have been recently rebuilt by NKWD staff within the last 4 years and all control valves have been reconditioned within the last 5 years. The operations staff indicated that all four pumps are in good operating condition. Some non-buried piping showed minor corrosion and, according to the operations staff, is scheduled to be painted. At this time, there are no identified capital improvement recommendations and any minor improvements to this pump station can be addressed within the O & M budget.
- **Improvements to Interior Process Equipment of Pump Room Building 1040 -**
The current condition of the interior of the buildings was satisfactory. The operations staff indicated that all four pumps are in good operating condition and have been recently refurbished by NKWD staff within the last 7 years. The District expressed concern about the age (originally installed in 1965) and lack of efficient hydraulic performance of three of the four station's vertical can pumps. It is recommended that all three of the existing vertical can pumps be systematically replaced as part of the on-going capital improvements to this station. All non-buried piping showed minor corrosion along with small patches of moss growth and, according to the operations staff, is scheduled to be painted. NKWD also expressed interest in implementing new soft start instrumentation at this pump station for all four pumps similar to that currently in use at the 1080 station. This improvement would help cut down on peak power demand during pump run time and start-up. The estimated cost associated with pump replacement is \$800,000. The estimated cost for soft start RVAC retrofit is \$60,000. The estimated cost for soft start auto transformer overhaul is \$240,000.
- **HVAC Improvements to Pump Room 1080 & 1040 -** During our site visit, it was observed that NKWD consistently placed the insect screens/bird screens on the inside of the existing pump station louvers. This creates an ideal spot for insects and birds to build nests between the louver blades and the screens and may create a serious health hazard associated with droppings. It is recommended that the District possibly replace these louvers with the screen on the outside. The estimated cost for louver replacement is \$1,500.
- **Replacement and Upgrade of Isolation Valves for both 1040 & 1080 Tanks -**
NKWD expressed strong interest in replacing isolation valves located on the inlet side of the two 5 MGD storage tanks. The operation of these isolation valves should be tied into and controlled by the District's existing SCADA system. Currently, in case

of a transmission main break, the District has no preventative measures in place to reduce the volume of water lost. The estimated cost for replacing the isolation valves and upgrading SCADA is \$55,000.

4.1.4. Storage Tank Evaluation

Within the 5-Year planning window the only new tank recommended is the replacement of the Rossford Tank due to age and condition. Additional storage capacity is projected to be needed to meet future demand increases beyond the 5-year horizon as discussed in Section 1, Hydraulic Model Update. Recommendations for storage tank maintenance can be found in Section 4.2.4, Storage Tank Evaluation.

4.1.5. Other

4.1.5.1. Laboratory Equipment

The replacement of laboratory equipment was included in the evaluation of the capital improvements plan as shown in Table 4-10. The equipment was assigned a service life of either 10 or 15 years. Equipment was assumed to be replaced with the same model or equivalent. This evaluation assumed that the exact same number and type of equipment would continue to be needed throughout the planning horizon.

**Table 4-10
Laboratory Equipment Replacement Schedule**

Replacement Year	Purchase Year	Equipment	Make/Model	Location	Instrument Service Life	2008 Cost	Annual Replacement Cost	Final Cost (including inflation)
2008	2000	TOC Analyzer No. 1	Tekmar Fusion **	Organics Lab	10 years	\$37,000		
2009	1988	Incubator No. 1	Fisher Scientific CO2 incubator/ 605	Micro Lab	15 years	\$26,000		
2009	1988	Autoclave No. 1	Market Forge Sterilmatic/STME	Micro Lab	15 years	\$12,000		
2009	2000	AA Varian No. 1	Spectra AA 280 **	Analytical Chemistry Lab	10 years	\$75,000		
2009	1997	AA Perkin Elmer No. 1	Furnace 41102L, Flame AA analyst 400 **	Analytical Chemistry Lab	10 years	\$22,000	\$172,000	\$172,000
2011	1996	Autoclave No. 1	Market Forge Sterilmatic/STME	Micro Lab	15 years	\$12,000	\$12,000	\$13,230
2012	1997	Muffle Furnace No. 1	Lindberg	Wet Chem Lab	15 years	\$7,000	\$7,000	\$8,103
2014	1999	D.I. Unit	Barnstead Infinity/D9011	Micro Lab	15 years	\$4,000		
2014	2005	GC (for HAAs) No. 2	Thermo Trace GC Ultra	Organics Lab	10 years	\$37,000		
2014	2005	Ion Chromatograph No. 2	Dionex	Analytical Chemistry Lab	10 years	\$60,000	\$101,000	\$128,904
2016	2007	GC Mass Spec No. 2	Agilent GC 7890A, MS 5975C	Organics Lab	10 years	\$50,000	\$50,000	\$70,355
2017	2008	Discrete Analyzer No. 2	OI Analytical DA3500 **	Wet Chem Lab	10 years	\$58,000	\$58,000	\$85,692
2018	2008	TOC Analyzer No. 2	Tekmar Fusion **	Organics Lab No. 2	10 years	\$37,000		
2018	2003	Muffle Furnace	Lindberg Blue	Wet Chem Lab	15 years	\$7,000	\$44,000	\$68,258
2019	2009	AA Varian No. 2	Spectra AA 280 **	Analytical Chemistry Lab	10 years	\$75,000		
2019	2009	AA Perkin Elmer No. 2	Furnace 41102L, Flame AA analyst 400 **	Analytical Chemistry Lab	10 years	\$22,000		
2019	2004	D.I. Unit	Barnstead Diamond/D12651	Micro Lab	15 years	\$5,000	\$102,000	\$166,147
2024	2009	Incubator No. 2	Fisher Scientific CO2 incubator/ 605	Micro Lab	15 years	\$26,000		
2024	2009	Autoclave No. 2	Market Forge Sterilmatic/STME	Micro Lab	15 years	\$12,000		
2024	2014	GC (for HAAs) No.2	Thermo Trace GC Ultra	Organics Lab	10 years	\$37,000		
2024	2014	Ion Chromatograph No. 2	Dionex	Analytical Chemistry Lab	10 years	\$60,000	\$135,000	\$280,655
2026	2011	Autoclave No. 2	Market Forge Sterilmatic/STME	Micro Lab	15 years	\$12,000		
2026	2016	GC Mass Spec No.e 2	Agilent GC 7890A, MS 5975C	Organics Lab	10 years	\$50,000	\$62,000	\$142,105
2027	2012	Muffle Furnace No.e 2	Lindberg	Wet Chem Lab	15 years	\$7,000		
2027	2017	Discrete Analyzer No. 2	OI Analytical DA3500 **	Wet Chem Lab	10 years	\$58,000	\$65,000	\$156,430
2028	2018	TOC Analyzer No. 3	Tekmar Fusion **	Organics Lab	10 years	\$37,000	\$37,000	\$93,497
2029	2019	AA Varian No. 3	Spectra AA 280 **	Analytical Chemistry Lab	10 years	\$75,000		
2029	2019	AA Perkin Elmer No. 3	Furnace 41102L, Flame AA analyst 400 **	Analytical Chemistry Lab	10 years	\$22,000	\$97,000	\$257,370

4.1.6. Project Recommendations

A brief description of all the recommended projects in the 5-Year CIP can be found in Table 4-11 followed by a table of the project costs and projected dates when projects will be needed are presented in Table 4-12. A map of all the recommended improvements is provided as Figure 4-1.

Additionally, in order to provide options within the CIPs, multiple approaches were developed to evaluate the timing of projects, and how this timing affects the capital required to fund the AMP throughout the 20-year planning horizon. These approaches are defined below:

Minimum Approach. The minimum approach includes projects required to meet regulations and replace failing critical assets. The minimum approach also includes what is considered to be a minimum amount of funding for maintenance and repairs just to keep the facilities in operation.

Moderate Approach. The moderate approach includes projects required to meet or exceed regulations, replace aging assets at levels below highest level, and improve reliability. The moderate approach also includes funding for what is considered to be an average level of maintenance and repairs for all facilities.

Aggressive Approach. The aggressive approach includes projects required to exceed regulations, replace all categories of aging assets at highest level and significantly improve reliability at the earliest timeframe practical. The aggressive approach also includes adequate funding for maintenance and repairs required for all facilities as well as funding for unanticipated maintenance.

Appendix F contains the results of this analysis for all recommended improvements from 2009-2030.

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
Yearly	<u>Distribution System R&R</u> This program involves the systematic replacement of water mains in areas which the District has experienced problems such as discolored water, poor flows, or failures.
Yearly	<u>Coordinated Main Replacement</u> This program involves working with various cities and agencies in the service area to replace water mains in streets that are being resurfaced. Working together saves the District restoration costs and coordinates our work with the street work.
Yearly	<u>Mains to Unserved Areas</u> These funds are utilized to extend water mains into unserved areas. The total project funding may include these funds along with grant funds, county funds, and surcharges to the customers.
Yearly	<u>Annual General Facility R&R – Plants, Tanks, and Pump Stations</u> This program involves rehabilitation and replacement of aging infrastructure and miscellaneous improvements at the treatment plants, tanks, pump stations, and regulator and meter pits. This may include improvements to address recommendations such as adding flow meters on the discharge of all pumps and gravity feed lines from FTTP and MPTP, surge suppression at pump stations, and connecting pressure regulating valves and large meter pits into SCADA.
09-01	<u>FTTP – Advanced Treatment Project</u> NKWD must comply with Stage 2 of the Disinfection By-Product Rule (DBPR) in April 2012. The DBPR will require all water systems to comply with a local running annual average of 80 ug/L and 60 ug/L for THM and HAA5 respectively at worst-case sampling points in the distribution system. NKWD will not be able to comply with this new regulation with the existing treatment processes at the FTTP. This project will install granular activated carbon (GAC) and ultraviolet (UV) disinfection at the FTTP. The standby generator will also be replaced.
09-02	<u>TMTP – Advanced Treatment Project</u> The preliminary treatment process housing the rapid mix, flocculation basins, and sedimentation basins at the TMTP are approximately 50 years old and need to be replaced because they are failing. The existing basins will be demolished and a granular activated carbon (GAC) feed pump station and emergency power generators installed in their place. The preliminary design report for advanced treatment options includes GAC at TMTP in order to meet the 2012 regulations. The ultraviolet (UV) disinfection units will be moved to the new GAC building.

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
09-03	<p><u>MPTP – Advanced Treatment Project</u></p> <p>This project will add granular activated carbon (GAC) and ultraviolet (UV) disinfection at MPTP in order to meet new regulations. The improvements will be located in the abandoned sedimentation basins. The project also includes replacing the standby power generator and upgrading filter control valves on 3 of the 6 filters as the other 3 were upgraded in 2007 with the underdrain and media installation.</p>
09-04	<p><u>FTTP Filter Renovations</u></p> <p>Industry standards recommend that filter media be changed out approximately every 20 years. The filter media in the 12 filters at FTTP is all older than 20 years and has started to exhibit performance problems. For example, 6 of the 12 filters significantly underperform, resulting in increased turbidity breakthrough and more frequent and longer backwashing. In this project the filter media will be replaced along with the surface wash system which will be replaced by an air scour system. The filters at the two other treatment plants all have air scour which reduces backwashing by about 50%, resulting in savings of finished water.</p>
09-05	<p><u>LRPS Structural Improvements, Roof Replacement, Sluice Gates, Actuators, and VFD</u></p> <p>This project will repair small cracks in the concrete and brick on the interior and exterior of the building and the ladders on the outside of the building that are deteriorating. This project will replace the roof that is in unsatisfactory condition and will upsize the hatches to facilitate removal of pumps. This project will replace the existing inoperable sluice gates that are located at multiple levels of the intake with new electrically actuated gates. The addition of a variable speed drive for increased pumping flexibility will be evaluated as well.</p>
09-06	<p><u>TMTP Valves and Actuators</u></p> <p>This project will replace aging valves and actuators in the pump station at the Taylor Mill Treatment plant.</p>
09-07	<p><u>Dudley 1040 – Pump Replacement</u></p> <p>This project will replace up to four pumps in the Dudley 1040 pump station and may add variable speed drives to two of the pumps. This station is the primary supply of water for northern Kenton County service area. The pumps were installed in 1965 and are at the end of its useful service life.</p>

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
09-08	<p><u>Washington Trace from Twelve Mile to Hwy 1996</u></p> <p>The proposed project involves construction of a new 12-inch water main along Oneonta and Washington Trace Roads from Stonehouse to Carthage Road in Campbell County, Kentucky. The length of this project is approx. 14,300 LF. Several new right-of-ways of easements will be needed. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.</p>
09-09	<p><u>US 27 from East Alexandria Pike to Main Street</u></p> <p>The proposed project involves constructing a new 24-inch water main along AA Highway from East Alexandria Pike to Four Mile Pike, Alexandria, Campbell County, Kentucky. The length of this project is approx. 9,700 LF. No new right-of-ways of easements will be needed. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.</p>
09-14	<p><u>Dolwick 1080/1040 Interconnect</u></p> <p>This project involves constructing a new 12-inch water main along Dolwich from the existing 12-inch on Dolwick to Turfway Road. This project is designed to provide a back-up feed to the Airport and the surrounding commercial and industrial area. The project will connect two different pressure zones together through a special valve.</p>
09-15	<p><u>42-inch Transmission from FFTP to Moock Road</u></p> <p>The proposed project involves constructing a new 42-inch water main along U.S. 27 and Moock Road from the FFTP to the Moock Road 36-inch in the City of Wilder and Southgate, Campbell County, Kentucky. The length of this project is approx. 8,500 LF. New right-of-ways of easements will needed. The estimated cost for the project is \$2,900,000. This project will replace the existing 24-inch main which is approximately 100 years old. This project is designed to strengthen and improve the transmission system to meet population growth and commercial development needs. The District's Master Plan identified this as a needed hydraulic improvement.</p>

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
09-16	<u>Siry to Flatwoods (Subdistrict F)</u> These remaining funds from Subdistrict F will be utilized to extend water mains along Siry & Flatwoods Roads. This project will provide an additional feed to Pendleton County Water and is part of the District Hydraulic Master Plan. The total project funding will include these funds along with grant funds, county funds and surcharges. The approx. length of the project is 3.6 miles.
10-01	<u>Dudley Discharge Redundancy – Phases 1, 2, and 3</u> This project involves constructing a new 36-inch/24-inch/16-inch water main through the City of Crestview Hills, Kenton County, Kentucky. This project is designed to strengthen the District's water transmission system and provide some redundancy for the District's existing 36-inch water main. The District's Master Plan Addendum for Reliability and Redundancy Analyses identified this as a needed improvement.
10-02	<u>Stonehouse Rd (Twelve Mile Road) from KY 10 to KY 1566</u> The proposed project involves constructing a new 8-inch water main along Twelve Mile Road from Ky. 10 to Ky. 1566 in Campbell County, Kentucky. The length of this project is approx. 8,200 LF. No new right-of-ways or easements should be needed. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as needed hydraulic improvement.
10-06	<u>Senour Avenue West of Clover Ridge</u> This project involves construction a 16-inch transmission water main along Senour Road from the existing 16-inch on Senour to Taylor Mill Road. This project is designed to provide additional water to the Independence area. The District's newest Master Plan identified this as a needed improvement.
11-01	<u>Replace PLCs at TMTP</u> This project will replace the existing PLCs at the Taylor Mill Treatment Plant installed in 1992 that have reached the end of their useful service life. The PLCs are used to control the filter operations including normal filtering flow rates and monitoring points, filter backwash, and filter-to-waste operation.
11-02	<u>FTTP Filter Building Improvements</u> This project will repair the walls, windows, and coatings that are failing due to condensation in the filter bays at the FTTP.
11-07	<u>IT Improvements – Year 1</u> This project includes implementation of improvements to the WAN, conversion to GeoDatabase, inventory control, and IT Tracking system.

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
12-01	<u>Rossford Tank</u> The project involves the replacement of the current 300,000 gallon Rossford tank with a larger 1 million gallon tank. The District has already secured land adjoining the existing tower for the replacement tower. The existing Rossford Tank will be retired and the Lumley Tank could also be retired.
12-02	<u>MPTP Reservoir Pump Station Suction Piping Replacement</u> A review of the Memorial Parkway Treatment Plant by CH2MHill and later by Quest/JJG showed that the suction piping for the reservoir pumping station has deteriorated and needs to be replaced. This pipe will be upsized to facilitate future capacity expansion of the plant.
12-03	<u>Carothers Road Pump Station Generator</u> This project will provide backup power to the Carothers Road Pump Station which serves as the sole supply of water to the southern part of the Newport service area under normal operations. This area may be served through emergency interconnections from the Ft. Thomas system. This project will reduce our risk of being without power at this station.
12-04	<u>FTTP Residuals Handling Improvements</u> The residuals processing system at the Fort Thomas Treatment Plant was built in the early 1990s and the equipment is reaching the end of its service life. The preliminary concept for this project includes replacing the two existing belt filter presses, belt conveyors, and polymer feed system; adding a third dumpster bay to provide additional storage of pressed cake prior to hauling; improving HVAC to reduce condensation; adding two flow equalization tanks ahead of the presses to maintain a more constant feed consistency; upsizing the recycled water line to the reservoirs; adding a new pipe to return settled water from the sedimentation basins to the reservoirs for routine cleaning; and adding a lamella plate settler housed in a building to treat water prior to returning to the reservoirs or allowing discharge to a creek under a KPDES permit.
12-06	<u>Burns Rd. Between Persimmon Grove & Flatwoods</u> This project involves constructing a new 8-inch water main along Burns Road from Persimmon Grove to Flatwoods Road. This project is designed to strengthen the District's water transmission system. The District's Master Plan Addendum for Reliability and Redundancy Analyses identified this as a needed improvement.
12-07	<u>KY 1280 Between US 27 & Burns Rd.</u> This project involves construction a new 8-inch water main along Ky. 1280 from Burns Road to U.S. 27. This project is designed to strengthen the District's water transmission system. The District's Master Plan Addendum for Reliability and Redundancy Analyses identified this as a needed improvement.

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
12-08	<u>Madison Ave. Parallel 24-inch Main Between Dudley & Hands Pike</u> This project involves constructing a new large transmission water main along Madison Pike from the existing 42-inch at Dudley Pike to Hands Pike. This project is designed to provide additional water to the Richardson Road Pump Station and Hands Pike Pump Station. The District's newest Master Plan identified this as needed improvement.
12-9	<u>Orphanage Rd. Parallel 24-inch Main Between Redwood & Valley Plaza</u> This project involves constructing a 24-inch transmission water main along Orphanage Road from the existing 24-inch at Horsebranch Road between Redwood School and Valley Plaza. This project is designed to provide additional water to the 1040 pressure zone. The District's newest Master Plan identified this as needed improvement.
12-10	<u>Hands Pike Between KY16 & Edwin</u> The proposed project involves constructing a new 12-inch water main along Hands Pike from Ky. 16 to Edwin Drive, Covington, Kenton County, Kentucky. The length of this project is approx. 2,500 LF. No new right-of-ways of easements will be needed. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to support existing water systems, improve quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.
12-11	<u>KY 16 Between Hands Pike & Klette Rd</u> The proposed project involves constructing a new 12-inch water main along Ky. 16 from Hands Pike to Klette Road, Covington/Independence, Kenton County, Kentucky. The length of his project is approx. 3,000 LF. No new right-of-ways of easements will be needed. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.
12-15	<u>Highland Avenue 12-inch from Kyles Lane to new reg pit near Hanser pit</u> The proposed project involves constructing a new 12-inch water main along Highland Ave. from Kyles Lane to regulator pit at Hanser Drive in Fort Wright, Kenton County, Kentucky. New right-of-ways of easements may be needed. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
12-16	<u>KY 16 from I-275 to TM Swim Club upgrade 16-inch with KDOT project</u> This project involves constructing a new 16-inch water main along the new alignment of KY 16. This project is designed to strengthen the District's water transmission system. The District's Master Plan Addendum for Reliability and Redundancy Analyses identified this as a needed improvement.
12-17	<u>KY 16 from TM Swim Club to TM Standpipe upgrade 16-inch with KDOT project</u> This project involves constructing a new 16-inch water main along the new alignment of KY 16. This project is designed to strengthen the District's water transmission system. The District's Master Plan Addendum for Reliability and Redundancy Analyses identified this as a needed improvement.
12-18	<u>IT Improvements - Year 2</u> This project includes implementation of improvements to the WAN, conversion to GeoDatabase, inventory control, IT Tracking system, and integration with software systems.
13-01	<u>FTTP Backwash Tank Replacement</u> The existing backwash supply tank was constructed in 1936 and is a rectangular basin that is mostly buried. This structure is in need of significant concrete repair and needs to be replaced with a new tank.
13-02	<u>Dudley - Install Isolation Valves</u> This project will install valves to isolate the two 5 million gallon Dudley tanks in the event of a rapid loss of water such as a large water main failure. The valves would be SCADA controlled so that they would close automatically and signal the pumps at the Taylor Mill Pump Station to turn off as well.
13-03	<u>Taylor Mill PS Pump Replacement (proposed 1, 5, 6 and 2 or 3)</u> This project will replace four of the six pumps at the Taylor Mill Pump Station. The new pumps will replace pumps at the end of their useful service life. The proposed pumps to replace are numbers 1, 5, 6 and either 2 or 3.
13-04	<u>LRPS New Generator & Walkbridge Upgrade</u> This project will make improvements to the walkbridge and install standby power to the Licking River pump station which supplies water to the Taylor Mill Treatment Plant.
13-05	<u>Improvements to FTTP Flocculation/Sedimentation Basins 2 & 3</u> Sedimentation basins 2 and 3 were constructed in 1936 and presently have two-stage flocculation. It is recommended to modify the basins for three-stage flocculation with vertical flocculation paddles instead of horizontal. This configuration is preferred for improving the effectiveness of removing the particulates through sedimentation. It is also recommended to replace the rakes and repair the concrete walls that are deteriorating.

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
13-07	<u>Low Gap Rd. Between Tollgate Rd & 8-inch Dead End</u> The proposed project involves construction a new 8-inch water main along Low Gap Road from Ky. 9 to existing water main dead-end in the City of Alexandria, Campbell County, Kentucky. The length of this project is approx. 1,300 LF. No new right-of-ways of easements will be needed. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.
13-08	<u>Interconnect 1080 & 1017</u> The proposed project involves constructing a new 12-inch water main along KY 536 (Pond Creek Road) from KY 1936 (Pond Creek Road) to Decoursey Pike in Campbell & Kenton Counties, Kentucky. The length of this project is approx. 2,000 LF. New right-of-ways of easements should be needed. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to support existing water systems, improve water quality, and improve fire protection in the area. This water main will need to cross the Licking River. The District's Master Plan identified this as a needed hydraulic improvement.
13-12	<u>US 27 24-inch from Sunset to Martha Lane Collins</u> This project involves constructing a 24-inch transmission water main along U.S. 27 from Sunset Ave. to Martha Lane Collins. This project is designed to provide additional water to the 1017 pressure zone. The District's newest Master Plan identified this as a needed improvement.
13-13	<u>Independence Rd. Between KY17 & 12-inch Pipe</u> This project involves constructing a new 12-inch water main along Independence Road from Ky. 17 to the existing 12-inch main. This project is designed to strengthen the District's water transmission system. The District's Master Plan Addendum for Reliability and Redundancy Analyses identified this a needed improvement.
13-14	<u>IT Improvements - Year 3</u> This project includes implementation of improvements to the WAN, IT Tracking system, and intergration with software systems.
14-01	<u>Laboratory Generator</u> This project will install standby power to the laboratory at the Ft. Thomas Treatment Plant that performs the analyses of water for the entire system that is necessary for compliance with KDOW testing requirements.

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
14-02	<u>TMTTP Sludge Pumps, Conveyors & Press</u> This project will replace the existing sludge processing equipment at the Taylor Mill Treatment Plant that has reached the end of its useful service life. A new belt filter press, conveyor, decant valves and repairs to the dumpster room are recommended.
14-03	<u>ORPS2 Replacement Design and Construction</u> This project will replace the existing Ohio River Pump Station No. 2 that supplies water to the Memorial Parkway Treatment Plant because the existing station was built in the late 1800s and has reached the end of its useful service life. The facility has numerous structural issues that need addressed to remain in operation and would take significant work to bring into current building code compliance if altered. The first year budget includes design engineering services for all improvements and installation of two phases of raw water main. The second and third year budgets include engineering services during construction and the contractor's construction cost for the station.
14-05	<u>36-inch Licking River Crossing</u> This project involves constructing a new 36-inch redundancy water main across the Licking River between Kenton & Campbell Counties. This project is designed to strengthen the District's water transmission system and provide additional redundancy for the District's existing 36-inch concrete water main. The District's Master Plan Addendum for Reliability and Redundancy Analyses identified this as a needed improvement.
14-09	<u>Vineyard (Gunkel Rd.) Between Eight Mile & Fender Rd.</u> The proposed project involves constructing a new 8-inch water main along Gunkel Road from Eight Mile Road to Fender Road in southern Campbell County, Kentucky. The length of this project is approx. 9,000 LF. No new right-of-ways or easements will be needed. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.
14-10	<u>IT Improvements - Year 4</u> This project includes implementation of improvements to the WAN, IT Tracking system, and intergration with software systems.

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
15-04	<u>Bromley Pump Replacement and Misc. Improvements</u> This project will replace the existing pumps at the Bromley Pump Station that have reached the end of their useful service life. The smaller pump was installed in 1968 and the two larger pumps in 1986. The chlorine storage and feed facility will be replaced along with various electrical and security improvements, replacement of valves and actuators.
15-05	<u>Upgrade SCADA/Instrumentation/Security Equipment at Plants and PS</u> This project will upgrade the SCADA operating system, replace the PLCs at the plants and pump stations that were installed between approximately 1998 and 2003 as they will have reached the end of their useful life, and replace security systems that were installed primarily from the Vulnerability Assessment recommendations in the same time period.
15-07	<u>IT Improvements - Year 5</u> This project includes implementation of improvements to the WAN, IT Tracking system, and integration with software systems.
16-05	<u>Hands Pike Pumps and Misc Improvements</u> The pumps, motors, and motor control centers installed in 1983 will be at the end of their useful lives and due to be replaced. It is recommended the lighting, electrical, and exhaust fans be inspected and replaced if needed. As an option to improving Hands Pike, the station could be retired when the new Richardson Road Pump Station is in place (proposed 2018).
16-06	<u>Horsebranch Road 24-inch from 36-inch to Thomas More Parkway</u> This project involves construction of a approximately 1,800 feet of 24-inch main along Horsebranch Road to Thomas More Parkway.
17-01	<u>Raw water line to FTTP South Reservoir</u> This project involves replacing the 30-inch raw water main installed in 1936 feeding the south reservoir at FTTP with a new 36-inch line. This improvement will bring more water to the south reservoir.
17-02	<u>MPTP Residuals Handling Improvements</u> This project will allow the residuals handling building to be placed back into operation. Improvements include adding a gravity thickener to process settled process solids and solids removed from the reservoir by a dredge, installation of 3 positive displacement pumps, modifications to truck loading area roof height, conversion of the existing sludge holding tank to a holding tank for belt filter press filtrate and gravity thickener supernatant and return pumps, and electrical upgrades.

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
17-04	<u>SR17 From Hands Pike to Apple Drive</u> This project involves the construction of approximately 28,000 feet of 24-inch water main along SR 17 between Hands Pike and Apple Drive. It will serve as a primary north/south water main to increase flow to both the existing Independence Tank and a new tank east of Independence.
17-08	<u>Replace Bellevue Tank</u> The Bellevue Tank was built around 1930 and is approaching the end of its useful service lives. Since the tank was painted in 1999, it is recommended a detailed inspection of the tanks be performed when the coatings reach 15 to 20 years old. Based on the condition of the tanks, the District will need to decide if the condition is adequate for repainting and keeping the tank in service for at least another 15 to 20 years or whether a new tank is needed.
18-01	<u>New KY17 PS To Replace Richardson Rd. PS</u> The pumps at Richardson Road station are currently running at much lower head than their design and will need to be replaced to meet future demand conditions. Due to limited capacity in the discharge pipe it is recommended this station be replaced with a new station at a different location along SR 17. The existing Richardson Road Pumping Station would be retired and the Hands Pike Pumping Station could also be retired.
18-02	<u>1.0 MG Elevated Storage Tank East of Independence</u> Based on demand projections and a storage gap analysis additional storage in the southern Kenton County area will be needed sometime between 2015 and 2020. This project consists of building a new 1.0 MG tank east of Independence.
18-03	<u>Replace Dayton Tank</u> The Dayton Tank was built around 1930 and is approaching the end of its useful service lives. Since the tank was painted in 2001, it is recommended a detailed inspection of the tanks be performed when the coatings reach 15 to 20 years old. Based on the condition of the tanks, the District will need to decide if the condition is adequate for repainting and keeping the tank in service for at least another 15 to 20 years or whether a new tank is needed.
18-04	<u>US 27 Pump Station VFDs</u> It is recommended that variable frequency drives be added to at least 2 of the pumps to reduce pressure surges in the system.
18-09	<u>SR17 to Stephens Rd cross country 16-inch to New Tank in Independence</u> This approximately 4,500 feet of 12-inch pipe between SR 17 and Stephens Road is needed to connect the new 1.0 MG Tank east of Independence.
18-10	<u>24-inch on US 27 Between FTTP and Martha Layne Collins replace 16-inch</u> It is recommended that the existing 16-inch main between the FTTP and Martha Layne Collins be replaced with a 24-inch main for approximately 16,000 feet.

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
19-01	<u>1.0 MG Elevated Storage Tank – Southern Campbell County</u> Based on demand projections and a storage gap analysis, additional storage will be needed in the southern Campbell County area between 2015 and 2020. This project will construct a new 1.0 MG tank in southern Campbell County near KY 9 and Lick Hill. The Main Street Tank may need retired for water quality reasons when this new tank is in place.
19-03	<u>New Pump Station near the existing Ripple Creek PS</u> The existing Ripple Creek Pump Station will be unable to supply enough water to all of southern Campbell County at some time between 2020 and 2030. A new pump station is recommended at the same location or in very close proximity to the existing station.
19-07	<u>24-inch along US 27 from Martha Layne Collins to Ripple Creek PS</u> It is recommended a new parallel 24-inch main be constructed from Martha Layne Collins to the Ripple Creek Pumping Station. The distance is about 12,000 feet.
19-08	<u>16-inch along AA Highway from Hwy 547 & California Cross Rd.</u> This project involves the construction of approximately 32,000 feet of 16-inch water main along the AA Highway (KY 9) between Hwy 547 and California Cross Road that will extend transmission capacity into southern Campbell County. At this time the Main Street Tank could be retired.
19-09	<u>36-inch Redundancy from 42-inch at Mooock Rd to 36-inch Licking River Crossing</u> This project consists of constructing 6,300 feet of 36-inch main along Mooock Road and across the Licking River into Covington.
19-10	<u>Replace Lumley Tank</u> The tank was built in 1934 and will be at the end of its service life. The tank was last coated in 1999 and will need repainted between 2014 and 2019. This tank can be retired following the construction of the larger Rossford Tank.
20-01	<u>Electrical Upgrades at FTTP</u> It is anticipated that upgrades to the power supply and distribution within the plant will be needed to replace systems at the end of their useful life.
20-02	<u>Retire TM Standpipe Build Elevated 1040 Tank</u> The tank was last coated in 2006 and would be due to be repainted around 2021. In order to increase pressure in Taylor Mill, it is recommended the existing standpipe be retired and a new elevated tank be constructed in its place. The system would be served directly from the 1040 pressure zone by removing the Sandman PRV. The new tank would be about 175 feet tall and should be in the same general vicinity as the existing standpipe. The recommended volume is not confirmed but is estimated to be about 500,000 gallons.

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
20-03	<u>Pump Station Improvements at Dudley 1040</u> It is recommended the pumps be retrofitted with variable speed drives and the motor control centers and electrical, mechanical, and lighting systems be upgraded.
20-08	<u>Replacement Ida Spence Tank (or retire and serve from 1040)</u> This tank was last coated in 2005 and will need repainted around 2020. The tank is approaching the end of its useful life having been built in 1953. The tank will need replaced, or it could be retired along with Latonia Pumping Station and the area served through a regulator off the 1040 pressure zone. Some system improvements would be needed to facilitate this conversion.
21-01	<u>Chemical Feed Systems Upgrades at TMTP</u> It is anticipated that chemical feed systems installed in 1998 will need rehabilitated or replaced. Systems include corrosion inhibitor, coagulants, caustic soda, fluoride, polymer, sodium hypochlorite, and sodium bisulfite. Components include piping, valves, actuators, tanks, and pumps.
21-02	<u>Filter Valves and Actuators at FTTP</u> It is recommended the filter valves and actuators at FTTP be replaced as they will be at the end of their useful life.
21-03	<u>Pump Station Improvements at Carothers</u> The pumps, motors, and motor control centers and electrical systems should be replaced.
22-01	<u>20-inch Gravity Discharge from MPTP</u> The two 20-inch gravity discharge lines from MPTP into Newport are over 100 years old. It is recommended these mains be replaced given their importance as the sole supply to Newport and future greater dependency when on these mains when Covington is served by MPTP. The total length is estimated to be 32,000 feet of two parallel 20-inch mains.
22-02	<u>Pump Station Improvements at Bristow Road</u> This project consists of replacing the 3 pumps with new 4,200 gpm pumps rated at 50 feet of head. The new pumps will be better matched to demand conditions and feeding the tanks in the 1080 system. The pumps should be installed with VFDs.
23-010	<u>Chemical Feed Systems Upgrades at FTTP</u> It is anticipated that chemical feed systems installed in 2001 will need rehabilitated or replaced. Systems include copper sulfate, corrosion inhibitor, coagulants, caustic soda, fluoride, polymer, sodium hypochlorite, and potassium permanganate at ORPS1. Components include piping, valves, actuators, tanks, and pumps.

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
23-02	<u>Pump Station Improvements at Dudley 1080</u> It is recommended the pumps, motors, and motor control centers be replaced along with upgrades to the mechanical, electrical, and lighting systems.
24-01	<u>Pump Station Improvements at Latonia</u> It is recommended the pumps, motors, and motor control centers be replaced along with upgrades to the mechanical, electrical, and lighting systems.
25-01	<u>Pump Station Improvements at Waterworks Road</u> It is recommended the pumps, motors, and motor control centers be replaced along with upgrades to the mechanical, electrical, and lighting systems. An emergency generator will also be installed.
25-02	<u>MPTP Expand to 20 MGD</u> In order to meet additional demand requirements in the system, the MPTP will be used to supply water to northern Kenton County and Campbell County. Improvements will include addition of a larger raw water pump in the Reservoir Pumping Station and replacement of the existing 24-inch discharge line with a 36-inch main, addition of another ACTIFLO [®] train,
26-01	<u>Pump Station Improvements and Electrical Improvements at TMTP</u> This project will replace two of the six pumps at the Taylor Mill Pump Station. The new pumps will replace pumps at the end of their useful service life. The proposed pumps to replace are numbers 4 and either 2 or 3. Power distribution at the plant may need replaced and should be evaluated to prioritize needs.
27-05	<u>20-inch to Connect 11th Street in Newport to 12th Street in Covington</u> This project consists of extending one of the gravity lines from MPTP down 11 th Street in Newport to supply a new pump station near the Licking River and then connecting back into the main at 12 th and Wheeler in Covington. The addition of 5,700 feet of 20-inch is needed.
27-06	<u>12-inch Parallel Main Btwn Vulcan and Lytle</u> The addition of a 12-inch parallel main approximately 6,300 feet in length is needed between Vulcan and Lytle Roads. This main will provide additional capacity needed to serve the Industrial and Devon Tanks.
28-01	<u>New pump station from Newport to Covington</u> This station will utilize Memorial Parkway Treatment Plant as a second supply to serve northern parts of Kenton County along with FFTP. Currently MPTP cannot be used to supply any water to Kenton County.
28-03	<u>24-inch Parallel Main Persimmon Grove from AA Hwy to Jerry Wright</u> Additional transmission is needed to provide adequate turnover and maintain the South County Tank and Claryville Tank water levels under future demand. This project consists of building 16,000 feet of 24-inch parallel main along Persimmon Grove and Jerry Wright Road.

**Table 4-11.
5-Year CIP Project Description**

Designation	Description
28-04	<u>16-inch Main Jerry Wright, Lickert, Old SR 4 to Claryville Tank</u> Additional transmission is needed to provide adequate water levels in the South County Tank and Claryville Tank water levels under future demand. This project consists of constructing 9,000 feet of 16-inch along Lickert Road and Old State Route 4.
29-01	<u>MPTP add second gravity thickener</u> This project involves the addition of a second gravity thickener and pumps to process increased production capacity and reservoir solids at MPTP.
29-02	<u>ORPS2 Addition of One 10 MGD Pump</u> In order to meet increased system demands, it will be necessary to add one 10 MGD pump to the raw water pumping station.
29-04	<u>20-inch Percival Rd from 24-inch in Banklick/Walton Nicholson to New Tank</u> This 20-inch water main will provide flow to the new southern Kenton County Tank needed to maintain pressures in the around Walton under 2030 projected demand conditions.
29-05	<u>1 MG Tank in Southern Kenton County near Walton</u> Based on demand projections and a storage gap analysis, additional storage will be needed in southern Kenton County sometime by 2030. This project consists of building a new 1.0 MG tank near Walton. A check valve will be installed in Independence Road to keep Bristow Road Pumping Station from pumping directly to the Independence Tank. This valve will help supply more water to the new tank.
30-01	<u>Chemical Feed Systems Upgrades at MPTP</u> It is anticipated that chemical feed systems installed in 2006 will need rehabilitated or replaced. Systems include copper sulfate, corrosion inhibitor, ferric sulfate, polyaluminum chloride, caustic soda, fluoride, polymer, sodium hypochlorite, and powdered activated carbon. Components include piping, valves, actuators, tanks, and pumps. Systems will be sized to meet 20 MGD treatment capacity.
30-02	<u>Pump Station Improvements at US 27</u> It is recommended the pumps, motors, and motor control centers be replaced along with upgrades to the mechanical, electrical, and lighting systems.
30-07	<u>Replace Kenton Lands Tank</u> The tank was built in 1954 and will be at the end of its service life. The tank was last coated in 2010 and will need repainted between 2025 and 2030.

Table 4-12
Master List of 5-Year CIP Projects 2009 – 2030

Designation	Location	Project Description	Cost
09-01	FTTP	FTTP Advanced Treatment - Design & Construction	\$30,000,000
09-02	TMTP	TMTP Advanced Treatment and Generator - Design & Construction	\$28,350,000
09-03	MPTP	MPTP Advanced Treatment - Design & Construction	\$15,300,000
09-04	FTTP	FTTP Filter Renovations	\$1,665,000
09-05	LRPS	Structural Impr., Roof Replacement, Sluice Gates, Actuators, VFD	\$984,750
09-06	TMTP	Valves & Actuators	\$168,300
09-07	Dudley 1040	Replace Four Pumps, 2 constant speed and 2 VFDs	\$440,550
09-08	Distribution	Washington Trace from Twelve Mile to Hwy 1996	\$964,970
09-09	Distribution	US27 from E. Alex Pike to Main Street/Phase 4 and 5 unfunded	\$1,947,000
09-10	Distribution	Yearly 2009 Distribution System R & R	\$3,100,000
09-11	Distribution	2009 Mains to Unserved Areas	\$250,000
09-12	Distribution	2009 Coordinated Main Replacement	\$2,000,000
09-13	Distribution	Kenton County Water Main Replacement Match	\$600,000
09-14	Distribution	Dolwick 1080 / 1040 Interconnect	\$850,000
09-15	Distribution	42" Transmission Main from FTTP to Moock Rd, Construction	\$2,500,000
09-16	Distribution	Siry to Flatwoods (Subdistrict F)	\$1,100,000
10-01	Distribution	Dudley Discharge Redundancy Imp. - Phase 1	\$760,000
10-01	Distribution	Dudley Discharge Redundancy Imp. - Phase 2	\$960,000
10-01	Distribution	Dudley Discharge Redundancy Imp. - Phase 3	\$945,000
10-02	Distribution	Stonehouse Rd (Twelve Mile Rd) from KY 10 to KY 1566	\$1,120,000
10-03	Distribution	Yearly 2010 Distribution System R & R	\$3,500,000
10-04	Distribution	2010 Mains to Unserved Areas	\$250,000
10-05	Distribution	2010 Coordinated Main Replacement	\$2,500,000
10-06	Distribution	Senour Ave. West of Cloverridge	\$750,000
10-07	Distribution	Subdistrict H Upgrade	\$497,018
10-07	Distribution	Subdistrict H Surcharge	\$946,670
10-08	Distribution	US27/AA Hwy/KY 547- unfunded Phase 3, 4, 5	\$2,971,200
11-01	TMTP	Replace PLCs for Filters at TMTP	\$350,000
11-02	FTTP	Repair Walls and Windows in FTTP Filters	\$530,000
11-03	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$829,000
11-04	Distribution	Yearly 2011 Distribution System R & R	\$4,000,000
11-05	Distribution	2011 Mains to Unserved Areas	\$250,000

Table 4-12
Master List of 5-Year CIP Projects 2009 – 2030

Designation	Location	Project Description	Cost
11-06	Distribution	2011 Coordinated Main Replacement	\$2,500,000
11-07	Distribution	Subdistrict I Surchage	\$257,576
11-08	Technology	IT Improvements - Year 1	\$175,000
12-01	Rossford	1.0 MG Rossford Elevated Storage Tank	\$3,125,000
12-02	MPTP	MPTP PS Suction Piping	\$1,000,000
12-03	Carothers	Carothers Rd. PS Generator	\$386,678
12-04	FTTP	Residuals Handling Upgrade Project - Design & Construction	\$6,500,000
12-05	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$928,000
12-06	Distribution	Burns Rd. Between Persimmon Grove & Flatwoods	\$1,554,000
12-07	Distribution	KY 1280 Between US 27 & Burns Rd.	\$357,000
12-08	Distribution	Madison Ave. Parallel 24" Main Between Dudley & Hands Pike	\$2,132,000
12-09	Distribution	Orphanage Rd. Parallel 24" Main Between Redwood & Valley Plaza	\$1,390,000
12-10	Distribution	Hands Pike Between KY16 & Edwin	\$608,000
12-11	Distribution	KY 16 Between Hands Pike & Klette Rd	\$613,000
12-12	Distribution	Yearly 2012 Distribution System R & R	\$4,000,000
12-13	Distribution	2012 Mains to Unserved Areas	\$250,000
12-14	Distribution	2012 Coordinated Main Replacement	\$2,500,000
12-15	Distribution	Highland Avenue 12" from Kyles Lane to new reg pit near Hanser pit	\$480,000
12-16	Distribution	KY 16 from I-275 to TM Swim Club upgrade 16" with KDOT project	\$450,000
12-17	Distribution	KY 16 from TM Swim Club to TM Standpipe upgrade 16" with KDOT project	\$350,000
12-18	Technology	IT Improvements - Year 2	\$405,000
13-01	FTTP	FTTP Backwash Tank Replacement	\$782,000
13-02	Dudley	Dudley - Install Isolation Valves	\$345,119
13-03	TM TP PS	Taylor Mill PS Pump Replacement (proposed 1, 5, 6 and 2 or 3)	\$3,731,013
13-04	LRPS	LRPS New Generator & Walkbridge Upgrade	\$4,100,000
13-05	FTTP	Improvements to FTTP Flocculation/Sedimentation Basins 2 & 3	\$2,784,000
13-06	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$888,000
13-07	Distribution	Low Gap Rd. Between Tollgate Rd & 8" Dead End	\$375,000
13-08	Distribution	Interconnect 1080 & 1017	\$1,200,000
13-09	Distribution	Yearly 2013 Distribution System R & R	\$4,000,000
13-10	Distribution	2013 Mains to Unserved Areas	\$250,000
13-11	Distribution	2013 Coordinated Main Replacement	\$2,500,000
13-12	Distribution	US 27 24" from Sunset to Martha Lane Collins	\$1,280,000
13-13	Distribution	Independence Rd. Between KY17 & 12" Pipe	\$115,000
13-14	Technology	IT Improvements - Year 3	\$343,000

Table 4-12
Master List of 5-Year CIP Projects 2009 – 2030

Designation	Location	Project Description	Cost
14-01	FTTP	Laboratory Generator	\$237,000
14-02	TMTP	TMTP Sludge Pumps, Conveyors & Press	\$1,537,000
14-03	ORPS2	ORPS2 Replacement Design and Construction	\$42,250,000
14-04	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$983,000
14-05	Distribution	36" Licking River Crossing	\$4,503,000
14-06	Distribution	2014 Distribution R&R	\$4,000,000
14-07	Distribution	2014 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
14-08	Distribution	2014 Mains into Unserved Areas	\$250,000
14-09	Distribution	Vineyard (Gunkel Rd.) Between Eight Mile & Fender Rd.	\$608,000
14-10	Technology	IT Improvements - Year 4	\$86,000
15-01	Distribution	2015 Mains into Unserved Areas	\$250,000
15-02	Distribution	2015 Water Main Replacement Program	\$5,000,000
15-03	Distribution	2015 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
15-04	Bromley	Bromley Pump Replacement and Misc. Improvements	\$1,716,000
15-05	Plants/PS	Upgrade SCADA/Instrumentation/Security Equipment at Plants and PS	\$10,172,000
15-06	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,007,000
15-07	Technology	IT Improvements - Year 5	\$300,000
16-01	Distribution	2016 Mains into Unserved Areas	\$250,000
16-02	Distribution	2016 Water Main Replacement Program	\$5,250,000
16-03	Distribution	2106 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
16-04	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,018,000
16-05	Hands Pike	Hands Pike Pumps and Misc Improvements	\$700,000
16-06	Distribution	Horsebranch Road 24" from 36" to Thomas More Parkway	\$800,000
17-01	FTTP	Raw water line to FTTP south reservoir	\$700,000
17-02	MPTP	MPTP Residuals Handling Improvements	\$4,600,000
17-03	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,038,000
17-04	Distribution	SR17 From Hands Pike to Apple Drive	\$12,740,000
17-05	Distribution	2017 Mains into Unserved Areas	\$250,000
17-06	Distribution	2017 Water Main Replacement Program	\$5,500,000
17-07	Distribution	2017 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
17-08	Bellevue	Replacement Bellevue Tank	\$1,300,000
18-01	New PS	New KY17 PS To Replace Richardson Rd. PS	\$1,900,000
18-02	New Tank	1.0 MG Elevated Storage Tank East of Independence	\$4,375,000
18-03	Dayton Tank	Replace Dayton Tank	\$3,700,000
18-04	US 27 PS	US 27 Pump Station VFDs	\$449,000

Table 4-12
Master List of 5-Year CIP Projects 2009 – 2030

Designation	Location	Project Description	Cost
18-05	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,061,000
18-06	Distribution	2018 Mains into Unserved Areas	\$250,000
18-07	Distribution	2018 Water Main Replacement Program	\$5,750,000
18-08	Distribution	2018 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
18-09	Distribution	SR17 to Stephens Rd cross country 16" to New Tank in Independence	\$1,068,570
19-01	New Tank	1.0 MG Elevated Storage Tank - Southern Campbell County	\$4,500,000
19-02	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,084,000
19-03	New PS	New Pump Station near the existing Ripple Creek PS	\$2,079,000
19-04	Distribution	2019 Mains into Unserved Areas	\$250,000
19-05	Distribution	2019 Water Main Replacement Program	\$6,000,000
19-06	Distribution	2019 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
19-07	Distribution	24" along US 27 from Martha Layne Collins to Ripple Creek PS	\$5,810,000
19-08	Distribution	16" along AA Highway from Hwy 547 & California Cross Rd.	\$10,330,000
19-09	Distribution	36" Redundancy from 42" at Mook Rd to 36" Licking River Crossing	\$4,100,000
19-10	Lumley Tank	Replace Lumley Tank	\$1,400,000
20-01	FTTP	Electrical Upgrades at FTTP	\$1,000,000
20-02	TM Tank	Retire TM Standpipe Build Elevated 1040 Tank	\$2,100,000
20-03	Dudley 1040 PS	Pump Station Improvements at Dudley 1040 (VFDs)	\$1,275,000
20-04	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,110,000
20-05	Distribution	2020 Mains into Unserved Areas	\$250,000
20-06	Distribution	2020 Water Main Replacement Program	\$6,500,000
20-07	Distribution	2020 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
20-08	Ida Spence	Replacement Ida Spence Tank (or retire and serve from 1040)	\$2,121,000
21-01	TMTP	Chemical Feed Systems Upgrades at TMTP	\$1,380,000
21-02	FTTP	Filter Valves and Actuators at FTTP	\$650,000
21-03	Carothers	Pump Station Improvements at Carothers	\$500,000
21-04	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,138,000
21-05	Distribution	2021 Mains into Unserved Areas	\$250,000
21-06	Distribution	2021 Water Main Replacement Program	\$6,500,000
21-07	Distribution	2021 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
22-01	MPTP	20" Gravity Discharge from MPTP	\$16,000,000
22-02	Bristow	Pump Station Improvements at Bristow Road	\$600,000
22-03	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,163,000
22-04	Distribution	2022 Mains into Unserved Areas	\$250,000

Table 4-12
Master List of 5-Year CIP Projects 2009 – 2030

Designation	Location	Project Description	Cost
22-05	Distribution	2022 Water Main Replacement Program	\$6,500,000
22-06	Distribution	2022 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
23-01	FTTP	Chemical Feed Systems Upgrades at FTTP	\$2,295,000
23-02	Dudley 1080 PS	Pump Station Improvements at Dudley 1080	\$3,600,000
23-03	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,190,000
23-04	Distribution	2023 Mains into Unserved Areas	\$250,000
23-05	Distribution	2023 Water Main Replacement Program	\$6,500,000
23-06	Distribution	2023 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
24-01	Latonia PS	Pump Station Improvements at Latonia	\$600,000
24-02	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,218,000
24-03	Distribution	2024 Mains into Unserved Areas	\$250,000
24-04	Distribution	2024 Water Main Replacement Program	\$6,500,000
24-05	Distribution	2024 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
25-01	Waterworks PS	Pump Station Improvements at Waterworks Road (include generator)	\$1,500,000
25-02	MPTP	MPTP Expand to 20 MGD - Actiflo	\$7,400,000
25-03	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,246,000
25-04	Distribution	2025 Mains into Unserved Areas	\$250,000
25-05	Distribution	2025 Water Main Replacement Program	\$6,500,000
25-06	Distribution	2025 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
26-01	TMTP PS	Pump Station Improvements at TMTP	\$3,100,000
26-02	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,277,000
26-03	Distribution	2026 Mains into Unserved Areas	\$250,000
26-04	Distribution	2026 Water Main Replacement Program	\$6,750,000
26-05	Distribution	2026 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
27-01	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,310,000
27-02	Distribution	2027 Mains into Unserved Areas	\$250,000
27-03	Distribution	2027 Water Main Replacement Program	\$7,000,000
27-04	Distribution	2027 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
27-05	Distribution	20" to Connect 11th Street in Newport to 12 Street in Covington	\$6,000,000
27-06	Distribution	12" Parallel Main Btwn Vulcan and Lytle	\$2,500,000
28-01	New PS	New pump station from Newport to Covington	\$7,000,000
28-02	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,342,000
28-03	Distribution	24" Parallel Main Persimmon Grove from Riley to Jerry Wright	\$11,200,000
28-04	Distribution	16" Main Jerry Wright, Lickert, Old SR 4 to Claryville Tank	\$3,600,000

Table 4-12
Master List of 5-Year CIP Projects 2009 – 2030

Designation	Location	Project Description	Cost
28-05	Distribution	2028 Mains into Unserved Areas	\$250,000
28-06	Distribution	2028 Water Main Replacement Program	\$7,500,000
28-07	Distribution	2028 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
29-01	MPTP	MPTP add second gravity thickener	\$1,000,000
29-02	ORPS2	ORPS2 add 1 10 MGD pump	\$1,900,000
29-03	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,376,000
29-04	Distribution	20" Percival Rd from 24" in Banklick/Walton Nicholson to New Tank	\$16,000,000
29-05	New Tank	1 MG Tank in Southern Kenton County near Walton	\$7,000,000
29-06	Distribution	2029 Mains into Unserved Areas	\$250,000
29-07	Distribution	2029 Water Main Replacement Program	\$8,000,000
29-08	Distribution	2029 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
30-01	MPTP	Chemical Feed Systems Upgrades at MPTP	\$1,751,000
30-02	US 27 PS	Pump Station Improvements at US 27	\$1,500,000
30-03	WQ&P	Annual General Facility R&R - Plants, Tanks, Pump Stations	\$1,411,000
30-04	Distribution	2030 Mains into Unserved Areas	\$250,000
30-05	Distribution	2030 Water Main Replacement Program	\$8,500,000
30-06	Distribution	2030 Coordinated Roadway Imp./Water Main Replacement	\$2,500,000
30-07	Kenton Lands	Replace Kenton Lands Tank	\$4,600,000

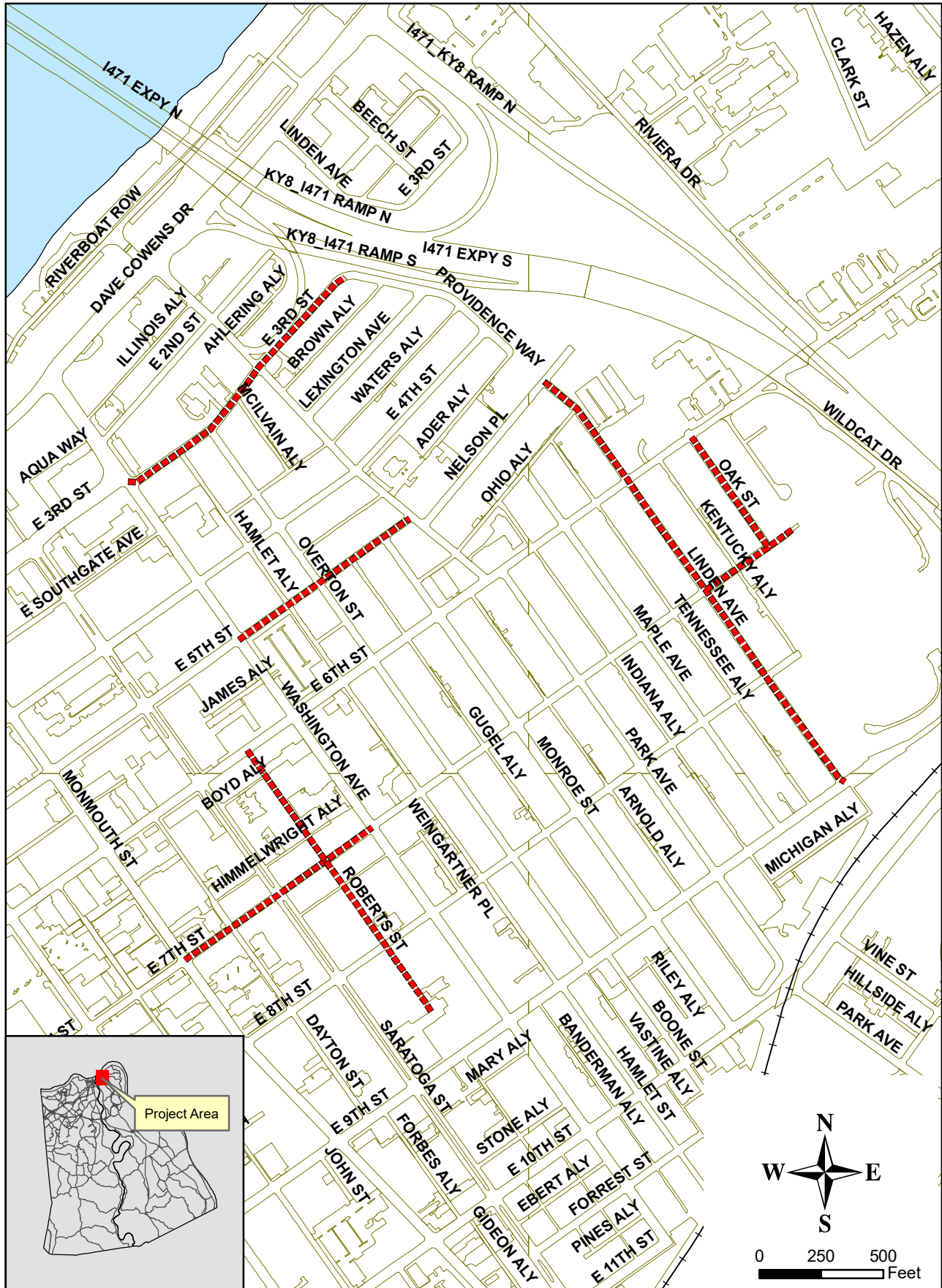


EXHIBIT A-3

PROJECT MAP



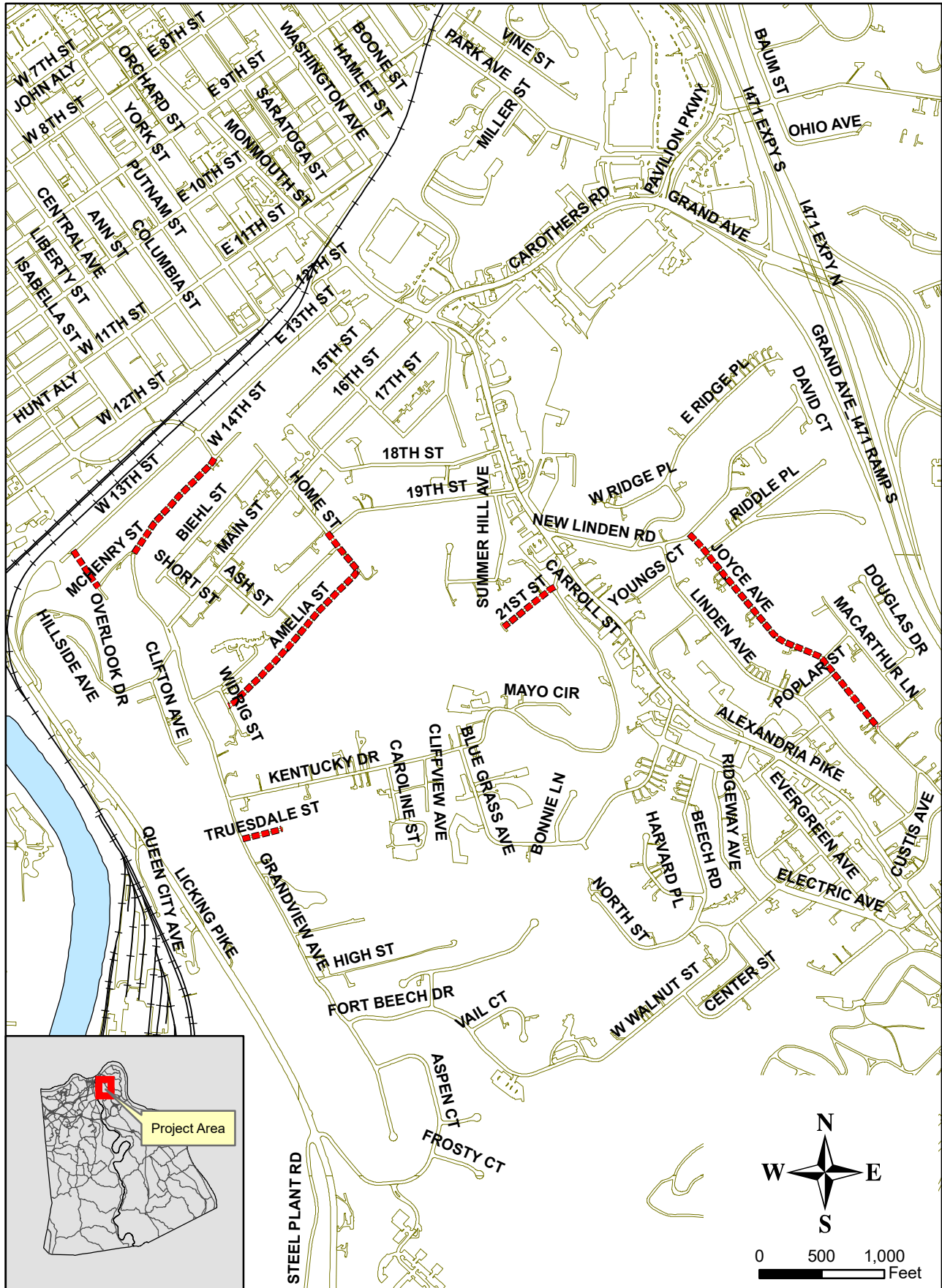
NEWPORT WMR – PHASE 3



Newport Water Main Replacement Phase 3 Project



NEWPORT WMR – PHASE 4



Newport Water Main Replacement Phase 4 Project



EXHIBIT A-4

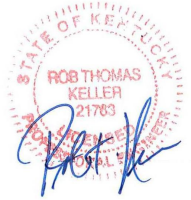
ENGINEER'S OPINION OF PROBABLE TOTAL CONSTRUCTION COST



NEWPORT WMR – PHASE 3

Newport WMR Phase 3 - Engineer's Estimate

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Price	Total
1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (8"). (Detail 103, 103a, 104, 104a, 110)	LF	44	\$ 225.00	\$ 9,900.00
2	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8"). (Detail 103, 103a, 104, 104a, 110)	LF	7600	\$ 180.00	\$ 1,368,000.00
3	6.03B C-900, C-909 Poly Vinyl Chloride (PVC) (8") – RESTRAINED JOINT	LF	350	\$ 200.00	\$ 70,000.00
4	6.03B C-900, C-909 Poly Vinyl Chloride (PVC) (6") – RESTRAINED JOINT	LF	30	\$ 180.00	\$ 5,400.00
5	7.01 CONNECT TO EXISTING MAIN/TIE-IN (12")	EA	6	\$ 5,750.00	\$ 34,500.00
6	7.01 CONNECT TO EXISTING MAIN/TIE-IN (8")	EA	1	\$ 5,500.00	\$ 5,500.00
7	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6")	EA	15	\$ 5,250.00	\$ 78,750.00
8	7.01 CONNECT TO EXISTING MAIN/TIE-IN (4")	EA	9	\$ 5,000.00	\$ 45,000.00
9	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	9	\$ 7,600.00	\$ 68,400.00
10	8.03 REMOVE FIRE HYDRANT	EA	9	\$ 500.00	\$ 4,500.00
11	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (12")	EA	4	\$ 3,500.00	\$ 14,000.00
12	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8")	EA	60	\$ 2,750.00	\$ 165,000.00
13	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6")	EA	2	\$ 2,500.00	\$ 5,000.00
14	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4"). (Service line materials provided by NKWD)	EA	257	\$ 2,900.00	\$ 745,300.00
15	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (1"). (Service line materials provided by NKWD)	EA	3	\$ 2,900.00	\$ 8,700.00
16	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (1.5"). (Service line materials provided by NKWD)	EA	1	\$ 2,900.00	\$ 2,900.00
17	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (2"). (Service line materials provided by NKWD)	EA	1	\$ 2,900.00	\$ 2,900.00
18	10.10 REPLACE PRIVATE SIDE LEAD SERVICE LINE	EA	206	\$ 4,500.00	\$ 927,000.00
19	11.01 CONCRETE ENCASEMENT	LF	39	\$ 100.00	\$ 3,900.00
20	11.04 PLUG AND BLOCK	EA	4	\$ 850.00	\$ 3,400.00
21	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	2	\$ 1,300.00	\$ 2,600.00
22	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (20"x20"x8")	EA	1	\$ 1,400.00	\$ 1,400.00
23	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (12"x12"x8")	EA	5	\$ 900.00	\$ 4,500.00
24	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (8"x8"x8")	EA	9	\$ 750.00	\$ 6,750.00
25	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (8"x8"x6")	EA	10	\$ 700.00	\$ 7,000.00
26	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (8"x8"x4")	EA	6	\$ 650.00	\$ 3,900.00
28	11.08 DUCTILE IRON CROSS (8"x8")	EA	10	\$ 1,000.00	\$ 10,000.00
29	11.09 REDUCER (8"x6")	EA	13	\$ 450.00	\$ 5,850.00
30	11.09 REDUCER (8"x4")	EA	9	\$ 400.00	\$ 3,600.00
31	11.15 SLEEVE OUT EXISTING TEE/CROSS	EA	3	\$ 5,000.00	\$ 15,000.00
32	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	10330	\$ 60.00	\$ 619,800.00
33	12.09 CONCRETE PAVEMENT	SY	2505	\$ 100.00	\$ 250,500.00
34	12.11 CONCRETE CURBING	LF	240	\$ 75.00	\$ 18,000.00
35	12.12 CONCRETE SIDEWALK	SY	92	\$ 100.00	\$ 9,200.00
36	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$ 15,000.00	\$ 15,000.00
TOTAL				\$	4,541,150.00
10% CONTINGENCY				\$	454,115.00
TOTAL ESTIMATED PROJECT COST				\$	4,995,265.00
Note: See section 01025 Measurement and Payment for bid form definitions					





NEWPORT WMR – PHASE 4

NEWPORT PHASE 4 WATER MAIN REPLACEMENT

Corridor	Engineer's Cost Opinion
Joyce Avenue	\$ 1,074,909.44
21st Street	\$ 292,162.22
Truesdale Street	\$ 117,925.00
Amelia Street-Home Street	\$ 824,623.33
Grandview Avenue	\$ 392,896.11
Clifton Street	\$ 125,215.00
Total	\$ 2,827,731.11



NEWPORT PHASE 4 WATER MAIN REPLACEMENT - Joyce Avenue				Engineer's Cost Opinion	
Item No.	Description	Unit of Measure	Estimated Quantity	Unit Cost Total	Total Cost
1	6.01 CLASS 50 DUCTILE IRON PIPE (8-inch) – w/all Fittings, Bends, Blocking, Extensions, Polywrap, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	2045	\$240.00	\$490,800.00
2	6.02.B CLASS 50 DUCTILE IRON PIPE (8-inch) – Restrained Joint, w/all Fittings, Bends, Blocking, Extensions, Polywrap, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	132	\$260.00	\$34,320.00
3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch Main)	EA	2	\$4,700.00	\$9,400.00
4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (8-inch Main)	EA	4	\$5,300.00	\$21,200.00
5	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2	\$7,600.00	\$15,200.00
6	8.03 REMOVE FIRE HYDRANT	EA	2	\$370.00	\$740.00
7	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8-inch)	EA	6	\$2,200.00	\$13,200.00
8	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4" THRU 2") (Service line materials provided by NKWD)	EA	76	\$2,530.00	\$192,280.00
	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT				
9	2108 New Linden Road	EA	1	\$2,000.00	\$2,000.00
10	2101 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
11	2114 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
12	2116 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
13	2118 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00

14	2120 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
15	2122 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
16	2200 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
17	2202 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
18	2204 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
19	2119 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
20	2121 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
21	2203 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
22	2205 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
23	2206 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
24	2208 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
25	2210 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
26	2212 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
27	2214 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
28	2216 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
29	2218 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
30	2220 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
31	2222 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
32	2224 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
33	2207 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
34	2209 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
35	2211 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
36	2213 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00

37	2215 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
38	2217 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
39	2219 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
40	2221 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
41	2223 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
42	2226 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
43	2228 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
44	2230 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
45	2232 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
46	2234 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
47	2238 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
48	2240 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
49	2242 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
50	2225 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
51	2229 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
52	2231 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
53	2233 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
54	2235 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
55	2237 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
56	2239 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
57	2241 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
58	2290 Joyce Avenue	EA	3	\$2,000.00	\$6,000.00
59	229 Poplar Street	EA	1	\$2,000.00	\$2,000.00
60	232 Poplar Street	EA	1	\$2,000.00	\$2,000.00

61	235 Poplar Street	EA	1	\$2,000.00	\$2,000.00
62	2302 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
63	2304 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
64	2306 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
65	2308 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
66	2310 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
67	2312 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
68	2311 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
69	2313 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
70	2315 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
71	2319 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
72	2331 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
73	2329 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
74	2314 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
75	2316 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
76	2318 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
77	2320 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
78	2322 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
79	2324 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
80	2327 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
81	2325 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
82	2323 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
83	2321 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00
84	2317 Joyce Avenue	EA	1	\$2,000.00	\$2,000.00

85	11.01 CONCRETE ENCASEMENT	LF	20	\$240.00	\$4,800.00
86	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (8-inch x 8-inch x 6-inch)	EA	2	\$820.00	\$1,640.00
87	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (8-inch x 8-inch x 8-inch)	EA	2	\$950.00	\$1,900.00
88	11.09 DUCTILE IRON REDUCER (8-inch x 6-inch)	EA	2	\$425.00	\$850.00
89	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	3061	\$25.00	\$76,519.44
90	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	726	\$70.00	\$50,820.00
91	12.11 CONCRETE CURBING	LF	10	\$80.00	\$800.00
92	12.12 CONCRETE SIDEWALK	SY	4	\$110.00	\$440.00
93	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$4,000.00	\$4,000.00
TOTAL				\$1,074,909.44	

NEWPORT PHASE 4 WATER MAIN REPLACEMENT - 21st Street				Engineer's Cost Opinion	
Item No.	Description	Unit of Measure	Estimated Quantity	Unit Cost Total	Total Cost
1	6.01 CLASS 50 DUCTILE IRON PIPE (6-inch) – w/all Fittings, Bends, Blocking, Extensions, Polywrap, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	445	\$240.00	\$106,800.00
2	6.02.B CLASS 50 DUCTILE IRON PIPE (6-inch) – Restrained Joint, w/all Fittings, Bends, Blocking, Extensions, Polywrap, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	84	\$260.00	\$21,840.00
3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch Main)	EA	1	\$4,700.00	\$4,700.00
4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (8-inch Main)	EA	1	\$5,300.00	\$5,300.00
5	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	1	\$7,600.00	\$7,600.00
6	8.03 REMOVE FIRE HYDRANT	EA	1	\$370.00	\$370.00
7	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6-inch)	EA	3	\$1,800.00	\$5,400.00
8	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8-inch)	EA	2	\$2,200.00	\$4,400.00
9	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4" THRU 2") (Service line materials provided by NKWD)	EA	20	\$2,530.00	\$50,600.00
	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT				
10	1 21st Street	EA	1	\$2,000.00	\$2,000.00
11	3 21st Street	EA	1	\$2,000.00	\$2,000.00
12	5 21st Street	EA	1	\$2,000.00	\$2,000.00
13	7 21st Street	EA	1	\$2,000.00	\$2,000.00
14	9 21st Street	EA	1	\$2,000.00	\$2,000.00

15	11 21st Street	EA	1	\$2,000.00	\$2,000.00
16	13 21st Street	EA	1	\$2,000.00	\$2,000.00
17	15 21st Street	EA	1	\$2,000.00	\$2,000.00
18	17 21st Street	EA	1	\$2,000.00	\$2,000.00
19	19 21st Street	EA	1	\$2,000.00	\$2,000.00
20	26 21st Street	EA	1	\$2,000.00	\$2,000.00
21	6 21st Street	EA	1	\$2,000.00	\$2,000.00
22	8 21st Street	EA	1	\$2,000.00	\$2,000.00
23	10 21st Street	EA	1	\$2,000.00	\$2,000.00
24	12 21st Street	EA	1	\$2,000.00	\$2,000.00
25	14 21st Street	EA	1	\$2,000.00	\$2,000.00
26	18 21st Street	EA	1	\$2,000.00	\$2,000.00
27	20 21st Street	EA	1	\$2,000.00	\$2,000.00
28	27 21st Street	EA	1	\$2,000.00	\$2,000.00
29	24 21st Street	EA	1	\$2,000.00	\$2,000.00
30	11.04 PLUG AND BLOCK (6")	EA	1	\$500.00	\$500.00
31	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	1	\$1,750.00	\$1,750.00
32	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (6-inch x 6-inch x 6-inch)	EA	2	\$615.00	\$1,230.00
33	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (8-inch x 8-inch x 6-inch)	EA	1	\$820.00	\$820.00
34	11.10 FLUSHING DEVICE (2-inch)	EA	1	\$1,800.00	\$1,800.00
35	11.15 SLEEVE OUT (8-inch)	EA	1	\$4,000.00	\$4,000.00
36	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	819	\$25.00	\$20,472.22

37	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	178	\$70.00	\$12,460.00
38	12.11 CONCRETE CURBING	LF	5	\$80.00	\$400.00
39	12.12 CONCRETE SIDEWALK	SY	2	\$110.00	\$220.00
40	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$1,500.00	\$1,500.00
TOTAL				\$292,162.22	

NEWPORT PHASE 4 WATER MAIN REPLACEMENT - Truesdale Road				Engineer's Cost Opinion	
Item No.	Description	Unit of Measure	Estimated Quantity	Unit Cost Total	Total Cost
1	6.01 CLASS 50 DUCTILE IRON PIPE (6-inch) – w/all Fittings, Bends, Blocking, Extensions, Polywrap, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	91	\$250.00	\$22,750.00
2	6.02.B CLASS 50 DUCTILE IRON PIPE (6-inch) – Restrained Joint, w/all Fittings, Bends, Blocking, Extensions, Polywrap, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	168	\$270.00	\$45,360.00
3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (8-inch Main)	EA	1	\$5,300.00	\$5,300.00
4	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	1	\$7,600.00	\$7,600.00
5	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6-inch)	EA	1	\$1,800.00	\$1,800.00
6	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8-inch)	EA	2		\$0.00
7	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4" THRU 2") (Service line materials provided by NKWD)	EA	3	\$2,530.00	\$7,590.00
8	11.04 PLUG AND BLOCK (6")	EA	1	\$500.00	\$500.00
9	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	1	\$1,750.00	\$1,750.00
10	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (6-inch x 6-inch x 6-inch)	EA	2	\$615.00	\$1,230.00
11	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (8-inch x 8-inch x 6-inch)	EA	1	\$820.00	\$820.00
12	11.15 SLEEVE OUT (8-inch)	EA	1	\$4,000.00	\$4,000.00
13	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	507	\$25.00	\$12,675.00
14	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	65	\$70.00	\$4,550.00
15	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$2,000.00	\$2,000.00
TOTAL				\$117,925.00	

NEWPORT PHASE 4 WATER MAIN REPLACEMENT - Amelia-Home				Engineer's Cost Opinion	
Item No.	Description	Unit of Measure	Estimated Quantity	Unit Cost Total	Total Cost
1	6.01 CLASS 50 DUCTILE IRON PIPE (12-inch) – w/all Fittings, Bends, Blocking, Extensions, Polywrap, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	81	\$290.00	\$23,490.00
2	6.02.B CLASS 50 DUCTILE IRON PIPE (12-inch) – Restrained Joint, w/all Fittings, Bends, Blocking, Extensions, Polywrap, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	112	\$310.00	\$34,720.00
3	6.01 CLASS 50 DUCTILE IRON PIPE (8-inch) – w/all Fittings, Bends, Blocking, Extensions, Polywrap, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	507	\$240.00	\$121,680.00
4	6.02.B CLASS 50 DUCTILE IRON PIPE (8-inch) – Restrained Joint, w/all Fittings, Bends, Blocking, Extensions, Polywrap, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	134	\$260.00	\$34,840.00
5	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8-inch) – w/all Fittings, Bends, Blocking, Extensions, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	852	\$210.00	\$178,920.00
6	6.03B C-900, Poly Vinyl Chloride (PVC) (8-inch) – RESTRAINED JOINT w/all Fittings, Bends, Blocking, Extensions, Polywrap, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	271	\$220.00	\$59,620.00
7	7.01 CONNECT TO EXISTING MAIN/TIE-IN (4-inch Main)	EA	1	\$4,300.00	\$4,300.00
8	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch Main)	EA	2	\$4,700.00	\$9,400.00
9	7.01 CONNECT TO EXISTING MAIN/TIE-IN (10-inch Main)	EA	1	\$5,500.00	\$5,500.00

10	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	4	\$7,600.00	\$30,400.00
11	8.03 REMOVE FIRE HYDRANT	EA	4	\$370.00	\$1,480.00
12	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6-inch)	EA	1	\$1,800.00	\$1,800.00
13	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8-inch)	EA	5	\$2,200.00	\$11,000.00
14	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (12-inch)	EA	5	\$4,300.00	\$21,500.00
15	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4" THRU 2") (Service line materials provided by NKWD)	EA	39	\$2,530.00	\$98,670.00
16	10.08 ABANDON EXISTING CURB STOP/METER CROCK	EA	2	\$500.00	\$1,000.00
	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT				
17	49 Widrig Street	EA	1	\$2,000.00	\$2,000.00
18	45 Amelia Street	EA	1	\$2,000.00	\$2,000.00
19	12 Amelia Street	EA	1	\$2,000.00	\$2,000.00
20	41 Amelia Street	EA	1	\$2,000.00	\$2,000.00
21	35A Amelia Street	EA	1	\$2,000.00	\$2,000.00
22	35 Amelia Street	EA	1	\$2,000.00	\$2,000.00
23	33 Amelia Street	EA	1	\$2,000.00	\$2,000.00
24	31 Amelia Street	EA	1	\$2,000.00	\$2,000.00
25	40 Amelia Street	EA	1	\$2,000.00	\$2,000.00
26	11 Amelia Street	EA	1	\$2,000.00	\$2,000.00
27	22 Amelia Street	EA	1	\$2,000.00	\$2,000.00
28	20 Amelia Street	EA	1	\$2,000.00	\$2,000.00
29	14 Amelia Street	EA	1	\$2,000.00	\$2,000.00

30	94 Home Street	EA	1	\$2,000.00	\$2,000.00
31	92 Home Street	EA	1	\$2,000.00	\$2,000.00
32	90 Home Street	EA	1	\$2,000.00	\$2,000.00
33	88 Home Street	EA	1	\$2,000.00	\$2,000.00
34	84 Home Street	EA	1	\$2,000.00	\$2,000.00
35	82 Home Street	EA	1	\$2,000.00	\$2,000.00
36	89 Home Street	EA	1	\$2,000.00	\$2,000.00
37	95 Home Street	EA	1	\$2,000.00	\$2,000.00
38	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	4	\$1,750.00	\$7,000.00
38	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (12-inch x 12-inch x 12-inch)	EA	2	\$1,800.00	\$3,600.00
39	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (12-inch x 12-inch x 6-inch)	EA	1	\$1,400.00	\$1,400.00
40	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (8-inch x 8-inch x 6-inch)	EA	4	\$820.00	\$3,280.00
41	11.09 DUCTILE IRON REDUCER (12-inch x 10-inch)	EA	1	\$1,050.00	\$1,050.00
42	11.09 DUCTILE IRON REDUCER (12-inch x 8-inch)	EA	1	\$960.00	\$960.00
43	11.09 DUCTILE IRON REDUCER (12-inch x 4-inch)	EA	1	\$800.00	\$800.00
44	11.09 DUCTILE IRON REDUCER (8-inch x 6-inch)	EA	1	\$425.00	\$425.00
45	11.15 SLEEVE OUT (12-inch)	EA	1	\$4,700.00	\$4,700.00
46	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	2828	\$25.00	\$70,708.33
47	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	654	\$70.00	\$45,780.00

48	12.11 CONCRETE CURBING	LF	20	\$80.00	\$1,600.00
49	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$3,000.00	\$3,000.00
TOTAL				\$824,623.33	

NEWPORT PHASE 4 WATER MAIN REPLACEMENT - Grandview				Engineer's Cost Opinion	
Item No.	Description	Unit of Measure	Estimated Quantity	Unit Cost Total	Total Cost
1	6.01 CLASS 50 DUCTILE IRON PIPE (8-inch) – w/all Fittings, Bends, Blocking, Extensions, Polywrap, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	768	\$240.00	\$184,320.00
2	6.02.B CLASS 50 DUCTILE IRON PIPE (8-inch) – Restrained Joint, w/all Fittings, Bends, Blocking, Extensions, Polywrap, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	250	\$260.00	\$65,000.00
3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch Main)	EA	1	\$4,700.00	\$4,700.00
4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (10-inch Main)	EA	1	\$5,500.00	\$5,500.00
5	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2	\$7,600.00	\$15,200.00
6	8.03 REMOVE FIRE HYDRANT	EA	1	\$370.00	\$370.00
7	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4" THRU 2") (Service line materials provided by NKWD)	EA	16	\$2,530.00	\$40,480.00
8	10.08 ABANDON EXISTING CURB STOP/METER CROCK	EA	1	\$500.00	\$500.00
	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT				
9	92 Grandview Avenue	EA	1	\$2,000.00	\$2,000.00
10	79 Grandview Avenue	EA	1	\$2,000.00	\$2,000.00
11	68 Grandview Avenue	EA	1	\$2,000.00	\$2,000.00
12	47 Grandview Avenue	EA	1	\$2,000.00	\$2,000.00
13	43 Grandview Avenue	EA	1	\$2,000.00	\$2,000.00

14	24 Grandview Avenue	EA	1	\$2,000.00	\$2,000.00
15	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	1	\$1,750.00	\$1,750.00
16	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (8-inch x 8-inch x 6-inch)	EA	2	\$820.00	\$1,640.00
17	11.09 DUCTILE IRON REDUCER (10-inch x 8-inch)	EA	1	\$750.00	\$750.00
18	11.09 DUCTILE IRON REDUCER (8-inch x 6-inch)	EA	1	\$425.00	\$425.00
19	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	1358	\$25.00	\$33,961.11
20	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	340	\$70.00	\$23,800.00
21	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$2,500.00	\$2,500.00
TOTAL				\$392,896.11	

NEWPORT PHASE 4 WATER MAIN REPLACEMENT - Clifton				Engineer's Cost Opinion	
Item No.	Description	Unit of Measure	Estimated Quantity	Unit Cost Total	Total Cost
1	6.01 CLASS 50 DUCTILE IRON PIPE (6-inch) – w/all Fittings, Bends, Blocking, Extensions, Polywrap, Backfill & Flowable Fill. (Detail 103, 103a, 104, 104a, 110)	LF	341	\$250.00	\$85,250.00
2	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch Main)	EA	2	\$4,700.00	\$9,400.00
3	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6-inch)	EA	3	\$1,800.00	\$5,400.00
4	11.06 DUCTILE IRON ANCHORING TEE AND BLOCK (6-inch x 6-inch x 6-inch)	EA	1	\$615.00	\$615.00
5	11.15 SLEEVE OUT (6-inch)	EA	1	\$3,900.00	\$3,900.00
6	12.xx CONCRETE KEY BLOCK	EA	6	\$2,500.00	\$15,000.00
7	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	62	\$25.00	\$1,550.00
8	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	10	\$70.00	\$700.00
9	12.11 CONCRETE CURBING	LF	5	\$80.00	\$400.00
10	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$3,000.00	\$3,000.00
TOTAL				\$125,215.00	



EXHIBIT A-5

SYSTEM HYDRAULIC MODEL



NEWPORT WMR – PHASE 3



FIRE FLOW CERTIFICATION

**Newport Water Main Replacement
Phase 3 of WX21037311
City of Newport
Campbell County, KY
May 27, 2024**

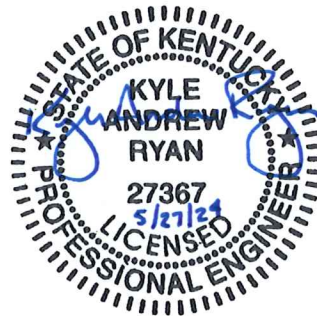
I certify that the proposed improvements meet the 807 KAR 5:066, Section 10b regulation for fire flow protection relating to KRS Chapter 278. I am certifying that "the system can provide a minimum fire flow of 250 gallons per minute; and the water system supporting this flow has the capability of providing this flow for a period of not less than two (2) hours plus consumption at the maximum daily rate". This certification is based on the information available and is not a guarantee of any precise results.

This certification is based on hydraulic modeling performed using InfoWater, the program available from Innovyze. Supporting documentation and operating conditions are attached and are the basis for this certification.

It should be noted that input data used for modeling is based on available data. Results can change and are dependent on the demand conditions, which can vary at any given time. These values will impact the final results when adjusted. The certification is based on estimated conditions and contains many assumptions based on historical data.

With this certification, the Northern Kentucky Water District will permit the construction of fire hydrants within this development.

Fire flow analyses were made using a hydrant within the subdivision that would provide a representative result that should simulate the results at other hydrants within the system. Minor variations at different hydrants would still provide a flow rate that meets the minimum standard.





HYDRAULIC AND FLUSHING VELOCITY CERTIFICATION

**Newport Water Main Replacement
Phase 3 of WX21037311
City of Newport
Campbell County, KY
May 27, 2024**

I certify that the proposed improvements are hydraulically capable of meeting the Kentucky Division of Water General Design Criteria for Surface and Ground Water Supplies standard for flushing velocity in the main meeting 2.5 feet per second while maintaining at least 20 psi pressure in accordance with 401 KAR 8:100.

The maximum flow rate that can reliably be supplied to the main and meet 20 psi in the system under maximum hour conditions is:

- 1,500 gpm on E. 3rd Street
- 1,500 gpm on E. 5th Street
- 1,500 gpm on E. 7th Street & Roberts Street
- 1,500 gpm on Linden, E. 7th, and Oak Street

At least 30 psi can be maintained under the peak domestic demand for the 260 customers affected. The peak domestic demand for customers with 5/8" meters was calculated using the D.R. Taylor formula (ten times the square root of the total number of residential customers). The peak domestic demand for customers with meters greater than 5/8" was based on metered usage. The peak domestic demand by street is:

- 55.7 gpm on W. 4th Street (31 customers)
- 51.0 gpm on W. 5th Street (26 customers)
- 88.9 gpm on E. 7th Street & Roberts Street (79 customers)
- 117.2 gpm on Linden, E. 7th, and Oak Street (124 customers)
 - 121 – 5/8" meters = 110 gpm
 - 1 – 1" meter at 616 Oak Street = 2.08 gpm
 - 1 – 1" meter at 618 Linden Avenue = 3.08 gpm
 - 1 – 1" meter at 627 Linden Avenue = 2.08 gpm

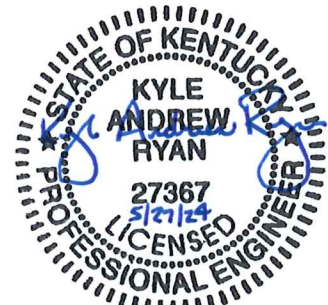
Therefore, the total peak domestic demand for the project is 313 gpm.

This certification is based on the information available and is not a guarantee of any precise results. Results are based on hydraulic modeling performed using InfoWater, the program available from Innovyze. Supporting documentation and operating conditions are attached and are the basis for this certification.

It should be noted that input data used for modeling is based on available data. Results can change and are dependent on the demand conditions, which can vary at any given time. These values will impact the final results when adjusted. The certification is based on estimated conditions for maximum hour demand conditions and contains many assumptions based on historical data.

With this certification, the Northern Kentucky Water District will permit the construction of the proposed development.

The assumed Hazen-Williams roughness coefficient for all new pipe was 120, which is suitable for ductile iron or PVC. This area is fed by the Memorial Parkway Clearwell.



Newport Water Main Replacement
Phase 3 of WX 21037311
Newport
Campbell County, Kentucky
Output from InfoWater model - copied to Excel
May 27, 2024



Maximum Hour Run for Potential Customers

Maximum Hour Run, 260 affected Customers = 313 GPM				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15144	13.9	502	716.0	92.7
15568	13.9	514	716.0	87.5
15133	13.9	515	716.1	87.1
15574	13.9	520	716.0	85.0
15142	12.7	508	716.1	90.2
15566	12.7	512	716.1	88.5
15560	12.7	517	716.2	86.3
15130	12.7	519	716.3	85.5
15070	11.1	520	716.1	85.0
15600	11.1	522	716.1	84.1
15594	11.1	518	716.2	85.9
15601	11.1	516	716.2	86.8
15140	11.1	516	716.3	86.8
15529	14.7	527	717.0	82.3
15541	14.7	522	717.0	84.5
15540	14.7	512	717.0	88.8
15610	11.1	511	716.2	88.9
15608	11.1	519	716.2	85.5
J342	11.1	522	716.2	84.2
15536	14.7	516	716.9	87.1
J340	14.7	523	716.9	84.0
15530	14.7	523	716.9	84.0
15528	14.7	530	717.4	81.2
15123	14.7	532	718.1	80.6

Flushing Velocities Under Maximum Hour

*side street mains closed to get 2.5 fps

E. 3rd Street

Flushing velocity 2.5 fps for new 8" pipe (under max hour)				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15144	13.9	502	711.4	90.7
15568	13.9	514	709.8	84.9
15133	13.9	515	708.6	83.9
15574	392.0	520	706.7	80.9
15142	12.7	508	712.0	88.4
15566	12.7	512	712.3	86.8
15560	12.7	517	712.5	84.7
15130	12.7	519	712.6	83.9
15070	11.1	520	712.2	83.3
15600	11.1	522	712.3	82.4
15594	11.1	518	712.3	84.2
15601	11.1	516	712.4	85.1
15140	11.1	516	712.4	85.1
15529	14.7	527	713.5	80.8
15541	14.7	522	713.4	83.0
15540	14.7	512	713.4	87.3
15610	11.1	511	712.3	87.2
15608	11.1	519	712.4	83.8
J342	11.1	522	712.4	82.5
15536	14.7	516	713.4	85.5
J340	14.7	523	713.3	82.5
15530	14.7	523	713.4	82.5
15528	14.7	530	713.9	79.7
15123	14.7	532	714.7	79.2

Pipe Information for flushing velocity at 2.5 fps for new 8" pipe

Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
15699	319	8	406	2.6	120
15700	374	8	420	2.7	120
15713	488	8	392	2.5	120

E. 5th Street

Flushing velocity 2.5 fps for new 8" pipe (under max hour)				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15144	13.9	502	710.9	90.5
15568	13.9	514	710.9	85.3
15133	13.9	515	710.9	84.9
15574	13.9	520	710.9	82.7
15142	12.7	508	711.0	87.9
15566	12.7	512	709.4	85.5
15560	12.7	517	708.1	82.8
15130	392.0	519	707.6	81.7
15070	11.1	520	711.7	83.1
15600	11.1	522	711.7	82.2
15594	11.1	518	711.8	84.0
15601	11.1	516	711.8	84.9
15140	11.1	516	711.8	84.9
15529	14.7	527	714.1	81.1
15541	14.7	522	714.1	83.2
15540	14.7	512	714.1	87.6
15610	11.1	511	711.8	87.0
15608	11.1	519	711.9	83.6
J342	11.1	522	712.0	82.3
15536	14.7	516	714.1	85.8
J340	14.7	523	714.0	82.8
15530	14.7	523	714.1	82.8
15528	14.7	530	714.3	79.9
15123	14.7	532	714.8	79.2

Pipe Information for flushing velocity at 2.5 fps for new 8" pipe					
Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
15689	144	8	392	2.5	120
15703	322	8	405	2.6	120
15704	375	8	417	2.7	120

E. 7th Street (Monmouth to Washington)

Flushing velocity 2.5 fps for new 8" pipe (under max hour)

ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15144	13.9	502	711.6	90.8
15568	13.9	514	711.6	85.6
15133	13.9	515	711.7	85.2
15574	13.9	520	711.7	83.1
15142	12.7	508	711.6	88.2
15566	12.7	512	711.8	86.6
15560	12.7	517	711.9	84.5
15130	12.7	519	712.0	83.6
15070	11.1	520	711.5	83.0
15600	11.1	522	710.5	81.7
15594	11.1	518	709.5	83.0
15601	11.1	516	708.6	83.4
15140	392.0	516	707.7	83.0
15529	14.7	527	713.3	80.7
15541	14.7	522	713.2	82.9
15540	14.7	512	713.2	87.2
15610	11.1	511	711.5	86.9
15608	11.1	519	712.7	83.9
J342	11.1	522	712.7	82.6
15536	14.7	516	713.2	85.4
J340	14.7	523	713.1	82.4
15530	14.7	523	713.1	82.4
15528	14.7	530	713.8	79.6
15123	14.7	532	714.7	79.2

Pipe Information for flushing velocity at 2.5 fps for new 8" pipe

Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
15753	236	8	425	2.7	120
15754	223	8	414	2.6	120
15755	244	8	403	2.6	120
15756	247	8	392	2.5	120

Roberts Street

Flushing velocity 2.5 fps for new 8" pipe (under max hour)

ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15144	13.9	502	712.3	91.1
15568	13.9	514	712.3	85.9
15133	13.9	515	712.3	85.5
15574	13.9	520	712.3	83.3
15142	12.7	508	712.4	88.6
15566	12.7	512	712.4	86.9
15560	12.7	517	712.5	84.7
15130	12.7	519	712.6	83.9
15070	11.1	520	712.1	83.3
15600	11.1	522	712.1	82.4
15594	11.1	518	712.0	84.1
15601	11.1	516	706.3	82.4
15140	11.1	516	712.7	85.2
15529	14.7	527	713.5	80.8
15541	14.7	522	713.4	82.9
15540	14.7	512	713.4	87.3
15610	392.0	511	704.2	83.7
15608	11.1	519	707.9	81.9
J342	11.1	522	709.2	81.1
15536	14.7	516	713.4	85.5
J340	14.7	523	713.3	82.5
15530	14.7	523	713.3	82.5
15528	14.7	530	713.9	79.7
15123	14.7	532	714.7	79.2

Pipe Information for flushing velocity at 2.5 fps for new 8" pipe

Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
15766	424	8	403	2.6	120
15774	546	8	392	2.5	120
P527	306	8	414	2.6	120

E. 7th Street (Linden to east of Oak)

Flushing velocity 2.5 fps for new 8" pipe (under max hour)

ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15144	13.9	502	712.3	91.1
15568	13.9	514	712.3	85.9
15133	13.9	515	712.3	85.5
15574	13.9	520	712.3	83.3
15142	12.7	508	712.4	88.6
15566	12.7	512	712.4	86.8
15560	12.7	517	712.4	84.7
15130	12.7	519	712.4	83.8
15070	11.1	520	712.5	83.4
15600	11.1	522	712.5	82.6
15594	11.1	518	712.6	84.3
15601	11.1	516	712.6	85.2
15140	11.1	516	712.6	85.2
15529	14.7	527	712.1	80.2
15541	14.7	522	710.9	81.8
15540	392.0	512	710.3	85.9
15610	11.1	511	712.6	87.3
15608	11.1	519	712.6	83.9
J342	11.1	522	712.7	82.6
15536	14.7	516	712.1	85.0
J340	14.7	523	712.1	81.9
15530	14.7	523	712.1	81.9
15528	14.7	530	713.3	79.4
15123	14.7	532	714.7	79.1

Pipe Information for flushing velocity at 2.5 fps for new 8" pipe

Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
15653	164	8	392	2.5	120
15654	307	8	407	2.6	120

Oak Street

Flushing velocity 2.5 fps for new 8" pipe (under max hour)

ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15144	13.9	502	712.3	91.1
15568	13.9	514	712.3	85.9
15133	13.9	515	712.3	85.5
15574	13.9	520	712.3	83.3
15142	12.7	508	712.4	88.6
15566	12.7	512	712.4	86.8
15560	12.7	517	712.4	84.7
15130	12.7	519	712.4	83.8
15070	11.1	520	712.5	83.4
15600	11.1	522	712.5	82.6
15594	11.1	518	712.6	84.3
15601	11.1	516	712.6	85.2
15140	11.1	516	712.6	85.2
15529	14.7	527	712.1	80.2
15541	14.7	522	710.7	81.8
15540	14.7	512	710.7	86.1
15610	11.1	511	712.6	87.3
15608	11.1	519	712.6	83.9
J342	11.1	522	712.7	82.6
15536	392.0	516	708.7	83.5
J340	14.7	523	712.1	82.0
15530	14.7	523	712.1	82.0
15528	14.7	530	713.3	79.4
15123	14.7	532	714.7	79.1

Pipe Information for flushing velocity at 2.5 fps for new 8" pipe

Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
15655	544	8	392	2.5	120

Linden Street

Flushing velocity 2.5 fps for new 8" pipe (under max hour)

ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15144	13.9	502	712.5	91.2
15568	13.9	514	712.5	86.0
15133	13.9	515	712.5	85.6
15574	13.9	520	712.5	83.4
15142	12.7	508	712.6	88.6
15566	12.7	512	712.6	86.9
15560	12.7	517	712.6	84.8
15130	12.7	519	712.7	83.9
15070	11.1	520	712.6	83.5
15600	11.1	522	712.6	82.6
15594	11.1	518	712.7	84.4
15601	11.1	516	712.7	85.2
15140	11.1	516	712.8	85.3
15529	14.7	527	709.6	79.1
15541	14.7	522	709.6	81.3
15540	14.7	512	709.6	85.6
15610	11.1	511	712.7	87.4
15608	11.1	519	712.8	84.0
J342	11.1	522	712.8	82.7
15536	14.7	516	709.6	83.9
J340	392.0	523	705.6	79.1
15530	14.7	523	707.4	79.9
15528	14.7	530	711.8	78.8
15123	14.7	532	714.6	79.1

Pipe Information for flushing velocity at 2.5 fps for new 8" pipe

Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
15635	495	8	484	3.1	120
15636	425	8	470	3.0	120
15637	543	8	407	2.6	120
15638	498	8	392	2.5	120

Maximum Available Flow Under Maximum Hour

E. 3rd Street

Maximum Hour Run, Maximum Available Flow				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15144	13.9	502	698.3	85.1
15568	13.9	514	697.6	79.6
15133	13.9	515	697.0	78.8
15574	1500.0	520	679.5	69.1
15142	12.7	508	699.2	82.8
15566	12.7	512	699.2	81.1
15560	12.7	517	699.2	78.9
15130	12.7	519	699.2	78.1
15070	11.1	520	700.1	78.0
15600	11.1	522	700.1	77.2
15594	11.1	518	700.2	78.9
15601	11.1	516	700.2	79.8
15140	11.1	516	700.2	79.8
15529	14.7	527	701.6	75.7
15541	14.7	522	701.6	77.8
15540	14.7	512	701.6	82.1
15610	11.1	511	700.2	82.0
15608	11.1	519	700.3	78.6
J342	11.1	522	700.4	77.3
15536	14.7	516	701.5	80.4
J340	14.7	523	701.3	77.3
15530	14.7	523	701.4	77.3
15528	14.7	530	702.5	74.7
15123	14.7	532	703.8	74.4

E. 5th Street

Maximum Hour Run, Maximum Available Flow				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15144	13.9	502	699.0	85.3
15568	13.9	514	698.9	80.1
15133	13.9	515	698.9	79.7
15574	13.9	520	698.9	77.5
15142	12.7	508	699.0	82.7
15566	1500.0	512	695.0	79.3
15560	12.7	517	697.8	78.3
15130	12.7	519	699.0	78.0
15070	11.1	520	700.1	78.0
15600	11.1	522	700.1	77.2
15594	11.1	518	700.1	78.9
15601	11.1	516	700.2	79.8
15140	11.1	516	700.2	79.8
15529	14.7	527	701.6	75.6
15541	14.7	522	701.5	77.8
15540	14.7	512	701.5	82.1
15610	11.1	511	700.1	81.9
15608	11.1	519	700.3	78.6
J342	11.1	522	700.4	77.3
15536	14.7	516	701.4	80.3
J340	14.7	523	701.2	77.2
15530	14.7	523	701.3	77.3
15528	14.7	530	702.4	74.7
15123	14.7	532	703.8	74.4

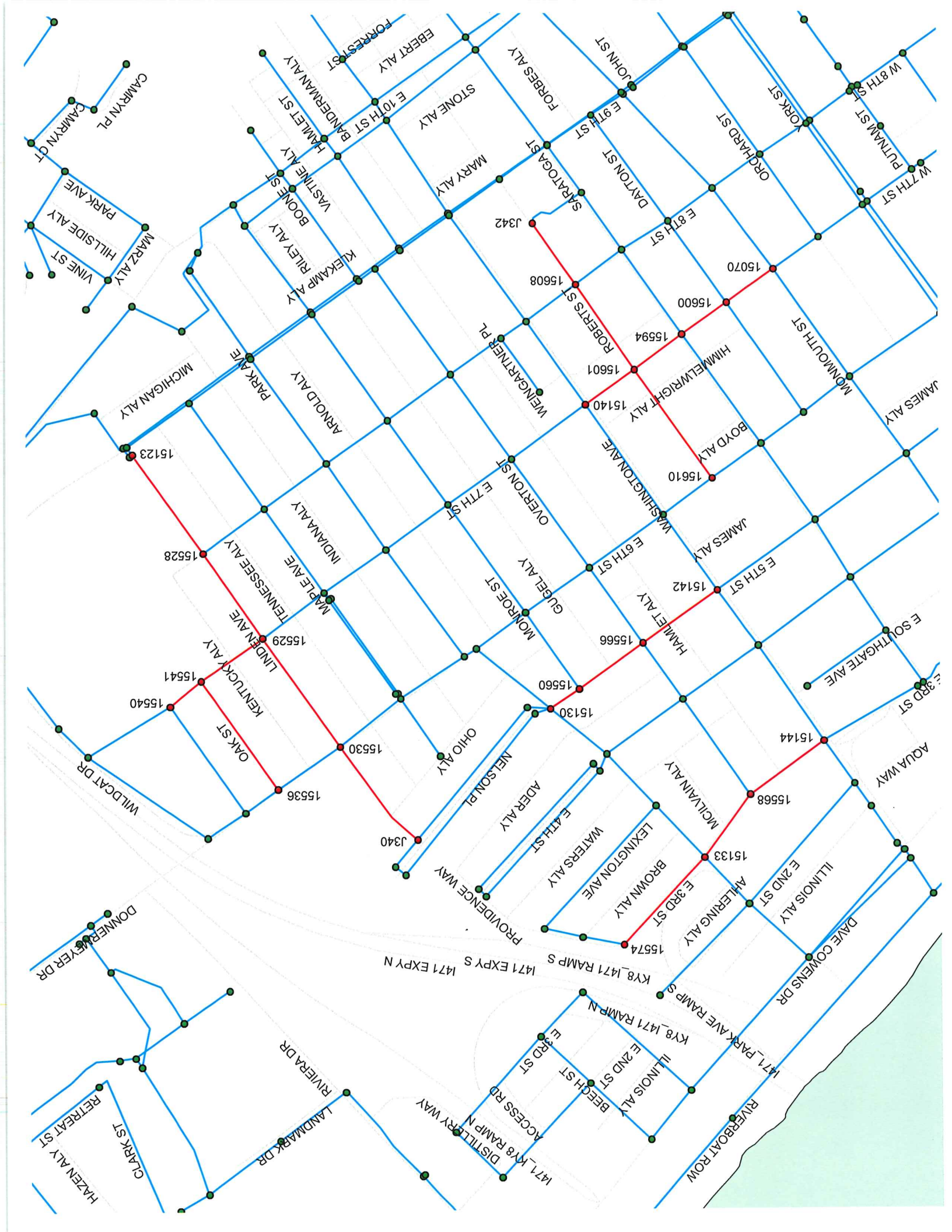
E. 7th & Roberts

Maximum Hour Run, Maximum Available Flow				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15144	13.9	502	699.7	85.7
15568	13.9	514	699.7	80.5
15133	13.9	515	699.8	80.1
15574	13.9	520	699.8	77.9
15142	12.7	508	699.7	83.1
15566	12.7	512	699.9	81.4
15560	12.7	517	700.1	79.3
15130	12.7	519	700.2	78.5
15070	11.1	520	699.7	77.9
15600	11.1	522	699.0	76.7
15594	11.1	518	698.3	78.1
15601	11.1	516	697.5	78.7
15140	11.1	516	699.7	79.6
15529	14.7	527	702.0	75.8
15541	14.7	522	701.9	78.0
15540	14.7	512	701.9	82.3
15610	1500.0	511	680.4	73.4
15608	11.1	519	698.3	77.7
J342	11.1	522	698.7	76.6
15536	14.7	516	701.9	80.5
J340	14.7	523	701.7	77.4
15530	14.7	523	701.8	77.5
15528	14.7	530	702.7	74.8
15123	14.7	532	703.8	74.4

Linden, E. 7th, & Oak

Maximum Hour Run, Maximum Available Flow				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15144	13.9	502	700.3	85.9
15568	13.9	514	700.3	80.7
15133	13.9	515	700.3	80.3
15574	13.9	520	700.3	78.1
15142	12.7	508	700.5	83.4
15566	12.7	512	700.3	81.6
15560	12.7	517	700.3	79.4
15130	12.7	519	700.3	78.5
15070	11.1	520	700.9	78.4
15600	11.1	522	700.9	77.5
15594	11.1	518	701.0	79.3
15601	11.1	516	701.0	80.2
15140	11.1	516	701.0	80.2
15529	14.7	527	691.9	71.4
15541	14.7	522	691.0	73.2
15540	14.7	512	691.0	77.6
15610	11.1	511	701.0	82.3
15608	11.1	519	701.1	78.9
J342	11.1	522	701.1	77.6
15536	14.7	516	690.2	75.5
J340	1500.0	523	669.2	63.3
15530	14.7	523	687.0	71.1
15528	14.7	530	697.8	72.7
15123	14.7	532	703.4	74.3

<u>Pipe ID</u>	<u>From Node</u>	<u>To Node</u>
15700	15568	15144
15699	15568	15133
15713	15133	15574
15704	15566	15142
15703	15560	15566
15689	15560	15130
15753	15070	15600
15754	15600	15594
15755	15594	15601
15756	15601	15140
15654	15541	15529
15653	15540	15541
15774	15601	15610
15766	15608	15601
P527	J342	15608
15655	15536	15541
15638	15530	J340
15637	15529	15530
15635	15123	15528
15636	15528	15529





NEWPORT WMR – PHASE 4



FIRE FLOW CERTIFICATION

**Newport Water Main Replacement
Phase 4 of WX21037311
City of Newport
Campbell County, KY
May 9, 2024**

I certify that the proposed improvements meet the 807 KAR 5:066, Section 10b regulation for fire flow protection relating to KRS Chapter 278. I am certifying that "the system can provide a minimum fire flow of 250 gallons per minute; and the water system supporting this flow has the capability of providing this flow for a period of not less than two (2) hours plus consumption at the maximum daily rate". This certification is based on the information available and is not a guarantee of any precise results.

This certification is based on hydraulic modeling performed using InfoWater, the program available from Innovyze. Supporting documentation and operating conditions are attached and are the basis for this certification.

It should be noted that input data used for modeling is based on available data. Results can change and are dependent on the demand conditions, which can vary at any given time. These values will impact the final results when adjusted. The certification is based on estimated conditions and contains many assumptions based on historical data.

With this certification, the Northern Kentucky Water District will permit the construction of fire hydrants within this development.

Fire flow analyses were made using a hydrant within the subdivision that would provide a representative result that should simulate the results at other hydrants within the system. Minor variations at different hydrants would still provide a flow rate that meets the minimum standard.





HYDRAULIC AND FLUSHING VELOCITY CERTIFICATION

**Newport Water Main Replacement
Phase 4 of WX21037311
City of Newport
Campbell County, KY
May 9, 2024**

I certify that the proposed improvements are hydraulically capable of meeting the Kentucky Division of Water General Design Criteria for Surface and Ground Water Supplies standard for flushing velocity in the main meeting 2.5 feet per second while maintaining at least 20 psi pressure in accordance with 401 KAR 8:100.

The maximum flow rate that can reliably be supplied to the main and meet 20 psi in the system under maximum hour conditions is:

- 1,500 gpm on Joyce Avenue
- 1,500 gpm on 21st Street
- 1,200 gpm on Truesdale Street
- 1,500 gpm on Amelia & Home Street
- 1,500 gpm on Grandview Avenue
- 1,500 gpm on Clifton Avenue

At least 30 psi can be maintained under the peak domestic demand for the 152 customers affected. The peak domestic demand was calculated using the D.R. Taylor formula (ten times the square root of the total number of residential customers). The peak domestic demand by street is:

- 86.6 gpm – Joyce Avenue (75 customers)
- 44.7 gpm – 21st Street (20 customers)
- 17.3 gpm – Truesdale Road (3 customers)
- 61.6 gpm – Amelia Street & Home Street (38 customers)
- 40.0 gpm – Grandview Avenue (16 customer)
- 0 gpm – Clifton Avenue (0 customers)

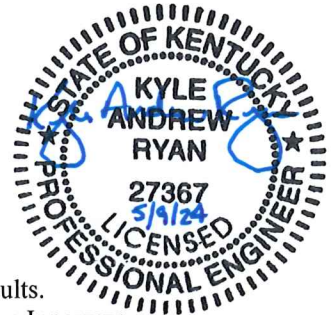
Therefore, the total peak domestic demand for the project is 250 gpm.

This certification is based on the information available and is not a guarantee of any precise results. Results are based on hydraulic modeling performed using InfoWater, the program available from Innovyze. Supporting documentation and operating conditions are attached and are the basis for this certification.

It should be noted that input data used for modeling is based on available data. Results can change and are dependent on the demand conditions, which can vary at any given time. These values will impact the final results when adjusted. The certification is based on estimated conditions for maximum hour demand conditions and contains many assumptions based on historical data.

With this certification, the Northern Kentucky Water District will permit the construction of the proposed development.

The assumed Hazen-Williams roughness coefficient for all new pipe was 120, which is suitable for ductile iron or PVC. The water level in the South Newport Tank was one-half full.



Newport Water Main Replacement
Phase 4 of WX 21037311
Newport
Campbell County, Kentucky
Output from InfoWater model - copied to Excel
May 9, 2024



Maximum Hour Run for Potential Customers

Maximum Hour Run, 152 affected Customers = 250 GPM				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15290	17.3	600	956.9	154.7
15287	17.3	597	956.9	156.0
15324	17.3	650	956.8	132.9
15318	17.3	670	956.7	124.2
15317	17.3	735	956.7	96.1
15403	11.2	638	956.5	138.0
J322	11.2	600	956.5	154.5
J320	11.2	580	956.5	163.1
15402	11.2	580	956.5	163.1
15461	5.8	784	950.2	72.0
J326	5.8	782	950.2	72.9
J324	5.8	794	950.2	67.7
15391	10.3	748	956.6	90.4
J328	10.3	732	956.8	97.4
J330	10.3	688	957.2	116.7
15392	10.3	650	957.6	133.3
15363	10.3	655	957.8	131.2
15170	10.3	650	957.8	133.4
15373	10.0	626	959.0	144.3
J336	10.0	617	959.0	148.2
15178	10.0	611	959.0	150.8
15176	10.0	596	959.0	157.3
15371	0.0	528	959.0	186.8
J338	0.0	548	959.0	178.1
15372	0.0	580	959.0	164.2

Flushing Velocities Under Maximum Hour

*side street mains closed to get 2.5 fps

Joyce Avenue

Flushing velocity 2.5 fps for new 8" pipe (under max hour)				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15290	17.3	600	947.1	150.4
15287	17.3	597	946.2	151.3
15324	17.3	650	943.2	127.0
15318	17.3	670	940.7	117.3
15317	381.5	735	938.1	88.0
15403	11.2	638	951.5	135.9
J322	11.2	600	951.6	152.3
J320	11.2	580	951.6	161.0
15402	11.2	580	951.6	161.0
15461	5.8	784	949.6	71.8
J326	5.8	782	949.6	72.6
J324	5.8	794	949.6	67.4
15391	10.3	748	952.8	88.8
J328	10.3	732	953.0	95.7
J330	10.3	688	953.1	114.9
15392	10.3	650	953.3	131.4
15363	10.3	655	953.4	129.3
15170	10.3	650	953.4	131.5
15373	10.0	626	956.0	143.0
J336	10.0	617	956.0	146.9
15178	10.0	611	956.1	149.5
15176	10.0	596	956.1	156.0
15371	0.0	528	956.1	185.5
J338	0.0	548	956.1	176.8
15372	0.0	580	956.1	162.9

Pipe Information for flushing velocity at 2.5 fps for new 8" pipe

Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
15307	200	8	444	2.8	120
15348	678	8	427	2.7	120
15347	614	8	409	2.6	120
15340	689	8	392	2.5	120

21st Street
Flushing velocity 2.5 fps for new 6" pipe (under max hour)

ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15290	17.3	600	954.1	153.4
15287	17.3	597	954.1	154.7
15324	17.3	650	954.0	131.7
15318	17.3	670	953.9	123.0
15317	17.3	735	953.9	94.8
15403	220.0	638	949.8	135.1
J322	11.2	600	951.2	152.2
J320	11.2	580	952.5	161.4
15402	11.2	580	952.8	161.5
15461	5.8	784	949.9	71.9
J326	5.8	782	949.9	72.7
J324	5.8	794	949.9	67.5
15391	10.3	748	954.5	89.5
J328	10.3	732	954.7	96.5
J330	10.3	688	954.9	115.7
15392	10.3	650	955.2	132.2
15363	10.3	655	955.4	130.2
15170	10.3	650	955.4	132.3
15373	10.0	626	957.2	143.5
J336	10.0	617	957.2	147.4
15178	10.0	611	957.2	150.0
15176	10.0	596	957.2	156.5
15371	0.0	528	957.2	186.0
J338	0.0	548	957.2	177.3
15372	0.0	580	957.2	163.5
J274	0.4	491	727.1	102.3

Pipe Information for flushing velocity at 2.5 fps for new 6" pipe

Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
15442	44	6	246	2.8	120
P499	217	6	231	2.6	120
P501	270	6	220	2.5	120

Truesdale Street
Flushing velocity 2.5 fps for new 6" pipe (under max hour)

ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15290	17.3	600	956.5	154.5
15287	17.3	597	956.5	155.8
15324	17.3	650	956.3	132.7
15318	17.3	670	956.2	124.0
15317	17.3	735	956.2	95.9
15403	11.2	638	956.0	137.8
J322	11.2	600	956.0	154.3
J320	11.2	580	956.1	163.0
15402	11.2	580	956.1	163.0
15461	5.8	784	947.9	71.0
J326	5.8	782	947.1	71.5
J324	220.0	794	946.3	66.0
15391	10.3	748	956.2	90.2
J328	10.3	732	956.4	97.3
J330	10.3	688	956.8	116.5
15392	10.3	650	957.2	133.1
15363	10.3	655	957.4	131.0
15170	10.3	650	957.4	133.2
15373	10.0	626	958.6	144.1
J336	10.0	617	958.6	148.0
15178	10.0	611	958.6	150.6
15176	10.0	596	958.7	157.1
15371	0.0	528	958.6	186.6
J338	0.0	548	958.6	177.9
15372	0.0	580	958.6	164.1

Pipe Information for flushing velocity at 2.5 fps for new 6" pipe

Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
P503	148	6	226	2.6	120
P505	153	6	220	2.5	120

Amelia & Home Street

Flushing velocity 2.5 fps for new 8" & 12" pipe (under max hour)

ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15290	17.3	600	947.0	150.4
15287	17.3	597	947.0	151.7
15324	17.3	650	947.0	128.7
15318	17.3	670	946.9	120.0
15317	17.3	735	946.9	91.8
15403	11.2	638	947.2	134.0
J322	11.2	600	947.2	150.5
J320	11.2	580	947.2	159.1
15402	11.2	580	947.3	159.1
15461	5.8	784	949.0	71.5
J326	5.8	782	949.0	72.4
J324	5.8	794	949.0	67.2
15391	839.9	748	916.0	72.8
J328	10.3	732	923.0	82.7
J330	10.3	688	932.0	105.7
15392	10.3	650	939.7	125.5
15363	10.3	655	943.9	125.2
15170	10.3	650	944.1	127.5
15373	10.0	626	953.3	141.8
J336	10.0	617	953.3	145.7
15178	10.0	611	953.3	148.3
15176	10.0	596	953.3	154.8
15371	0.0	528	953.3	184.3
J338	0.0	548	953.3	175.6
15372	0.0	580	953.3	161.7

Pipe Information for flushing velocity at 2.5 fps for new 8" & 12" pipe

Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
15396	117	12	881	2.5	120
15430	454	8	840	5.4	120
15431	256	8	871	5.6	120
P507	573	8	850	5.4	120
P509	481	8	860	5.5	120

Grandview Avenue**Flushing velocity 2.5 fps for new 8" pipe (under max hour)**

ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15290	17.3	600	953.6	153.2
15287	17.3	597	953.6	154.5
15324	17.3	650	953.5	131.5
15318	17.3	670	953.5	122.8
15317	17.3	735	953.5	94.7
15403	11.2	638	953.4	136.7
J322	11.2	600	953.4	153.1
J320	11.2	580	953.4	161.8
15402	11.2	580	953.5	161.8
15461	5.8	784	949.7	71.8
J326	5.8	782	949.7	72.7
J324	5.8	794	949.7	67.5
15391	10.3	748	953.5	89.1
J328	10.3	732	953.7	96.1
J330	10.3	688	953.9	115.2
15392	10.3	650	954.2	131.8
15363	10.3	655	954.3	129.7
15170	10.3	650	954.4	131.9
15373	392.0	626	948.7	139.8
J336	10.0	617	950.0	144.3
15178	10.0	611	951.3	147.5
15176	10.0	596	952.7	154.6
15371	0.0	528	952.7	184.0
J338	0.0	548	952.7	175.3
15372	0.0	580	952.7	161.5

Pipe Information for flushing velocity at 2.5 fps for new 8" pipe

Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
15183	330	8	412	2.6	120
15409	335	8	392	2.5	120
P521	337	8	402	2.6	120

Clifton Avenue

Flushing velocity 2.5 fps for new 8" pipe (under max hour)

ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15290	17.3	600	954.9	153.8
15287	17.3	597	954.9	155.1
15324	17.3	650	954.8	132.1
15318	17.3	670	954.7	123.4
15317	17.3	735	954.7	95.2
15403	11.2	638	954.6	137.2
J322	11.2	600	954.6	153.7
J320	11.2	580	954.6	162.3
15402	11.2	580	954.6	162.3
15461	5.8	784	949.9	71.9
J326	5.8	782	949.9	72.8
J324	5.8	794	949.9	67.6
15391	10.3	748	954.7	89.6
J328	10.3	732	954.9	96.6
J330	10.3	688	955.2	115.8
15392	10.3	650	955.5	132.4
15363	10.3	655	955.7	130.3
15170	10.3	650	955.7	132.5
15373	10.0	626	955.3	142.7
J336	10.0	617	955.3	146.6
15178	10.0	611	955.3	149.2
15176	10.0	596	955.3	155.7
15371	0.0	528	953.4	184.3
J338	0.0	548	952.5	175.3
15372	220.0	580	951.6	161.0

Pipe Information for flushing velocity at 2.5 fps for new 8" pipe

Pipe ID	Length, ft	Diam, inch	Flow, gpm	Velocity, fps	Roughness
15408	176	6	220	2.5	120
P523	176	6	220	2.5	120

Maximum Available Flow Under Maximum Hour

Joyce Avenue

Maximum Hour Run, Maximum Available Flow				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15290	17.3	600	924.5	140.6
15287	17.3	597	921.7	140.7
15324	17.3	650	904.4	110.2
15318	17.3	670	889.1	95.0
15317	1500.0	735	878.9	62.3
15403	11.2	638	939.4	130.6
J322	11.2	600	939.4	147.1
J320	11.2	580	939.4	155.7
15402	11.2	580	939.4	155.7
15461	5.8	784	947.5	70.9
J326	5.8	782	947.5	71.7
J324	5.8	794	947.5	66.5
15391	10.3	748	943.3	84.6
J328	10.3	732	943.0	91.4
J330	10.3	688	942.7	110.4
15392	10.3	650	942.4	126.7
15363	10.3	655	942.3	124.5
15170	10.3	650	942.3	126.7
15373	10.0	626	950.6	140.6
J336	10.0	617	950.6	144.5
15178	10.0	611	950.6	147.1
15176	10.0	596	950.6	153.6
15371	0.0	528	950.6	183.1
J338	0.0	548	950.6	174.4
15372	0.0	580	950.6	160.6

21st Street**Maximum Hour Run, Maximum Available Flow**

ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15290	17.3	600	939.8	147.2
15287	17.3	597	939.8	148.5
15324	17.3	650	939.6	125.5
15318	17.3	670	939.4	116.8
15317	17.3	735	939.4	88.6
15403	1500.0	638	829.7	83.1
J322	11.2	600	878.9	120.9
J320	11.2	580	919.0	146.9
15402	11.2	580	927.3	150.5
15461	5.8	784	947.6	70.9
J326	5.8	782	947.6	71.8
J324	5.8	794	947.6	66.6
15391	10.3	748	944.3	85.0
J328	10.3	732	944.0	91.9
J330	10.3	688	943.8	110.8
15392	10.3	650	943.6	127.2
15363	10.3	655	943.5	125.0
15170	10.3	650	943.5	127.2
15373	10.0	626	951.0	140.8
J336	10.0	617	951.0	144.7
15178	10.0	611	951.0	147.3
15176	10.0	596	951.0	153.8
15371	0.0	528	951.0	183.3
J338	0.0	548	951.0	174.6
15372	0.0	580	951.0	160.8

Truesdale Road**Maximum Hour Run, Maximum Available Flow**

ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15290	17.3	600	953.8	153.3
15287	17.3	597	953.8	154.6
15324	17.3	650	953.6	131.6
15318	17.3	670	953.5	122.9
15317	17.3	735	953.5	94.7
15403	11.2	638	953.5	136.7
J322	11.2	600	953.5	153.2
J320	11.2	580	953.5	161.9
15402	11.2	580	953.5	161.9
15461	5.8	784	918.0	58.1
J326	5.8	782	900.0	51.1
J324	1200.0	794	881.5	37.9
15391	10.3	748	954.3	89.4
J328	10.3	732	954.5	96.4
J330	10.3	688	954.7	115.6
15392	10.3	650	955.0	132.2
15363	10.3	655	955.2	130.1
15170	10.3	650	955.2	132.2
15373	10.0	626	956.9	143.4
J336	10.0	617	956.9	147.3
15178	10.0	611	957.0	149.9
15176	10.0	596	957.0	156.4
15371	0.0	528	957.0	185.9
J338	0.0	548	957.0	177.2
15372	0.0	580	956.9	163.3

Amelia Street

Maximum Hour Run, Maximum Available Flow				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15290	17.3	600	945.3	149.6
15287	17.3	597	945.3	150.9
15324	17.3	650	945.2	127.9
15318	17.3	670	945.2	119.2
15317	17.3	735	945.2	91.1
15403	11.2	638	945.5	133.2
J322	11.2	600	945.5	149.7
J320	11.2	580	945.5	158.4
15402	11.2	580	945.5	158.4
15461	5.8	784	948.6	71.3
J326	5.8	782	948.6	72.2
J324	5.8	794	948.6	67.0
15391	1500.0	748	902.1	66.8
J328	10.3	732	912.0	78.0
J330	10.3	688	924.8	102.6
15392	10.3	650	935.6	123.8
15363	10.3	655	941.5	124.2
15170	10.3	650	941.8	126.5
15373	10.0	626	951.5	141.0
J336	10.0	617	951.5	144.9
15178	10.0	611	951.5	147.5
15176	10.0	596	951.5	154.1
15371	0.0	528	951.5	183.5
J338	0.0	548	951.5	174.8
15372	0.0	580	951.5	161.0

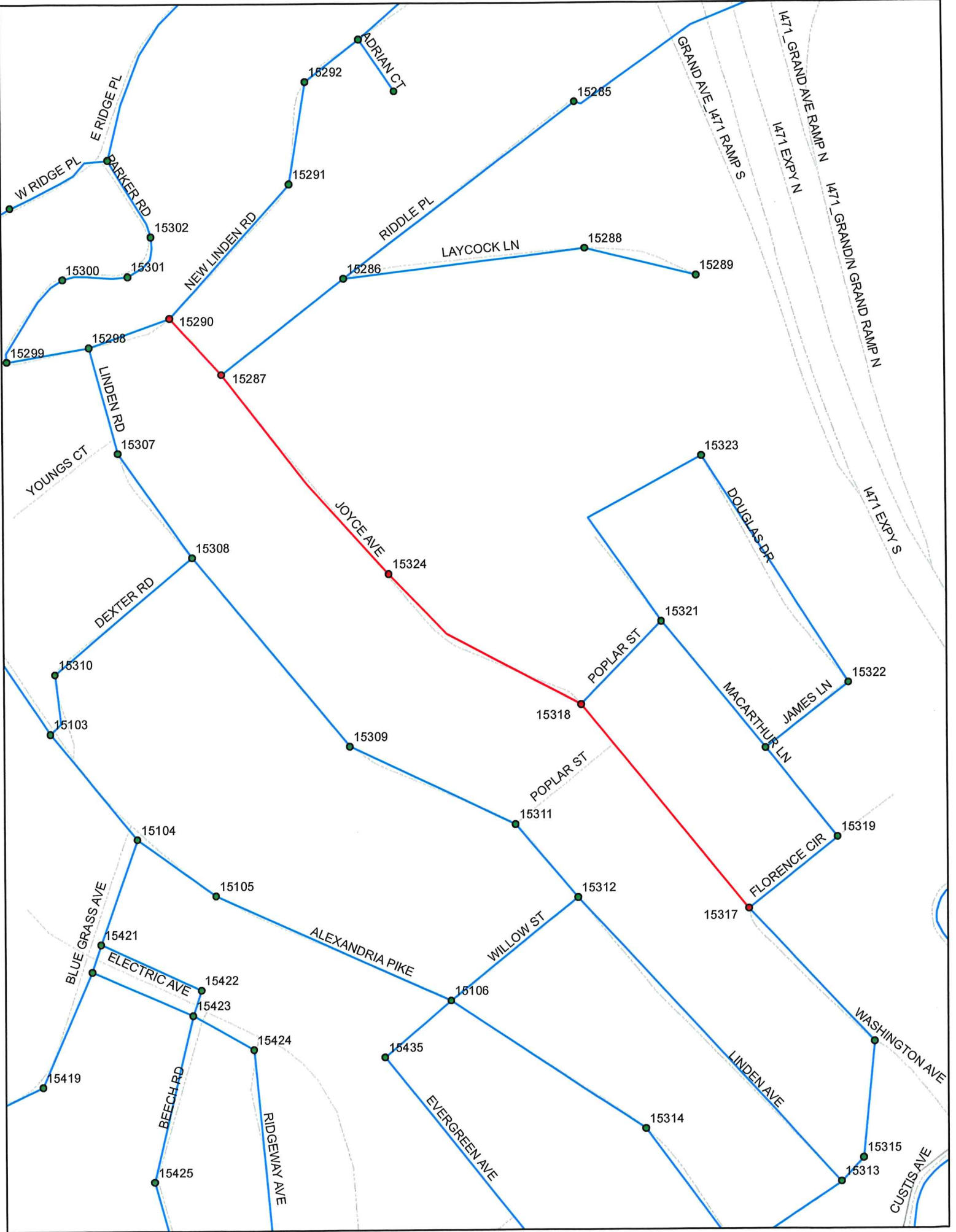
Grandview Avenue

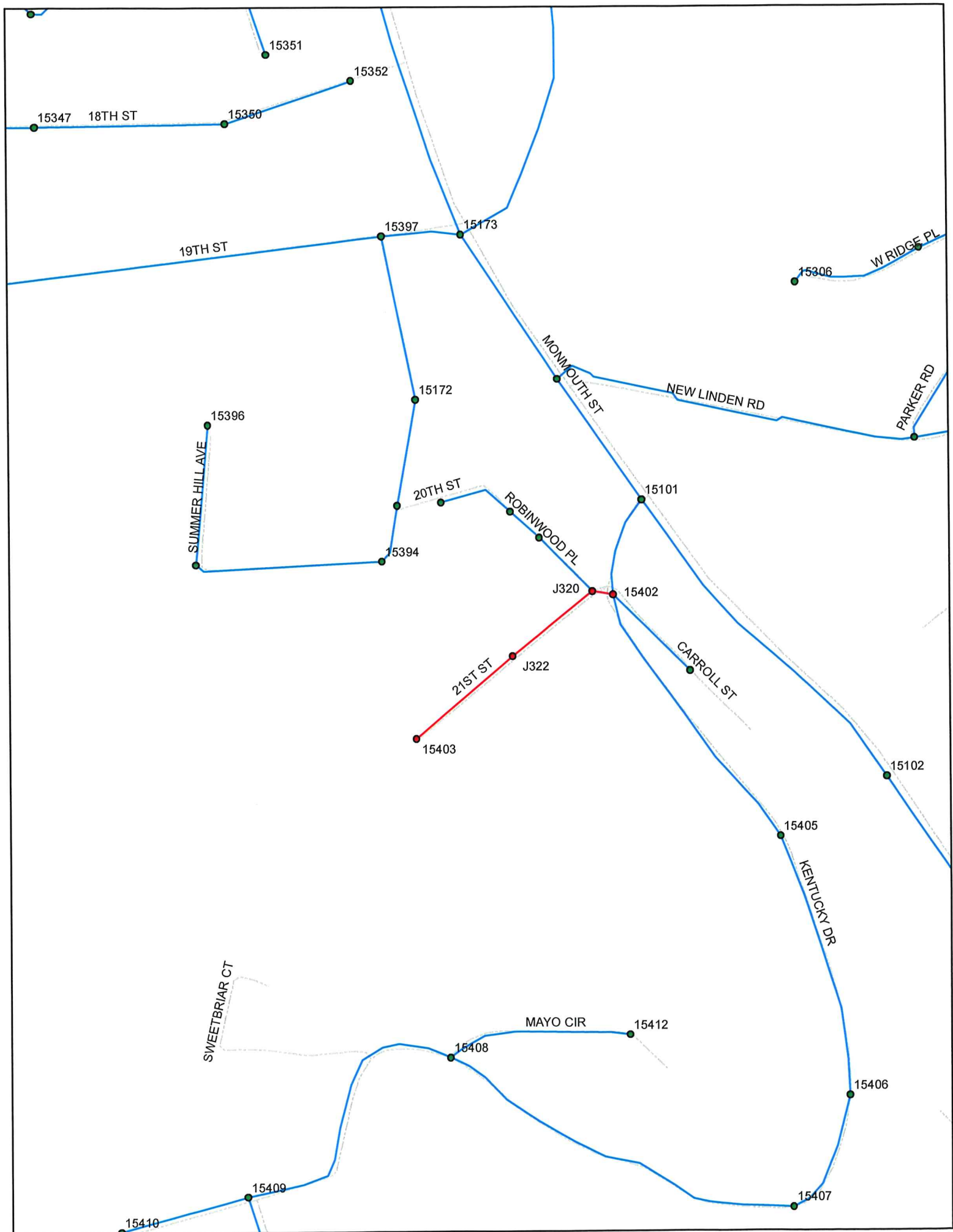
Maximum Hour Run, Maximum Available Flow				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15290	17.3	600	950.0	151.6
15287	17.3	597	950.0	152.9
15324	17.3	650	949.9	129.9
15318	17.3	670	949.9	121.3
15317	17.3	735	949.8	93.1
15403	11.2	638	950.0	135.2
J322	11.2	600	950.0	151.7
J320	11.2	580	950.1	160.4
15402	11.2	580	950.1	160.4
15461	5.8	784	949.1	71.5
J326	5.8	782	949.1	72.4
J324	5.8	794	949.1	67.2
15391	10.3	748	950.0	87.5
J328	10.3	732	950.1	94.5
J330	10.3	688	950.2	113.6
15392	10.3	650	950.3	130.1
15363	10.3	655	950.4	128.0
15170	10.3	650	950.4	130.2
15373	1500.0	626	914.1	124.8
J336	10.0	617	920.7	131.6
15178	10.0	611	927.4	137.1
15176	10.0	596	934.2	146.6
15371	0.0	528	927.6	173.2
J338	0.0	548	924.4	163.1
15372	0.0	580	921.2	147.8

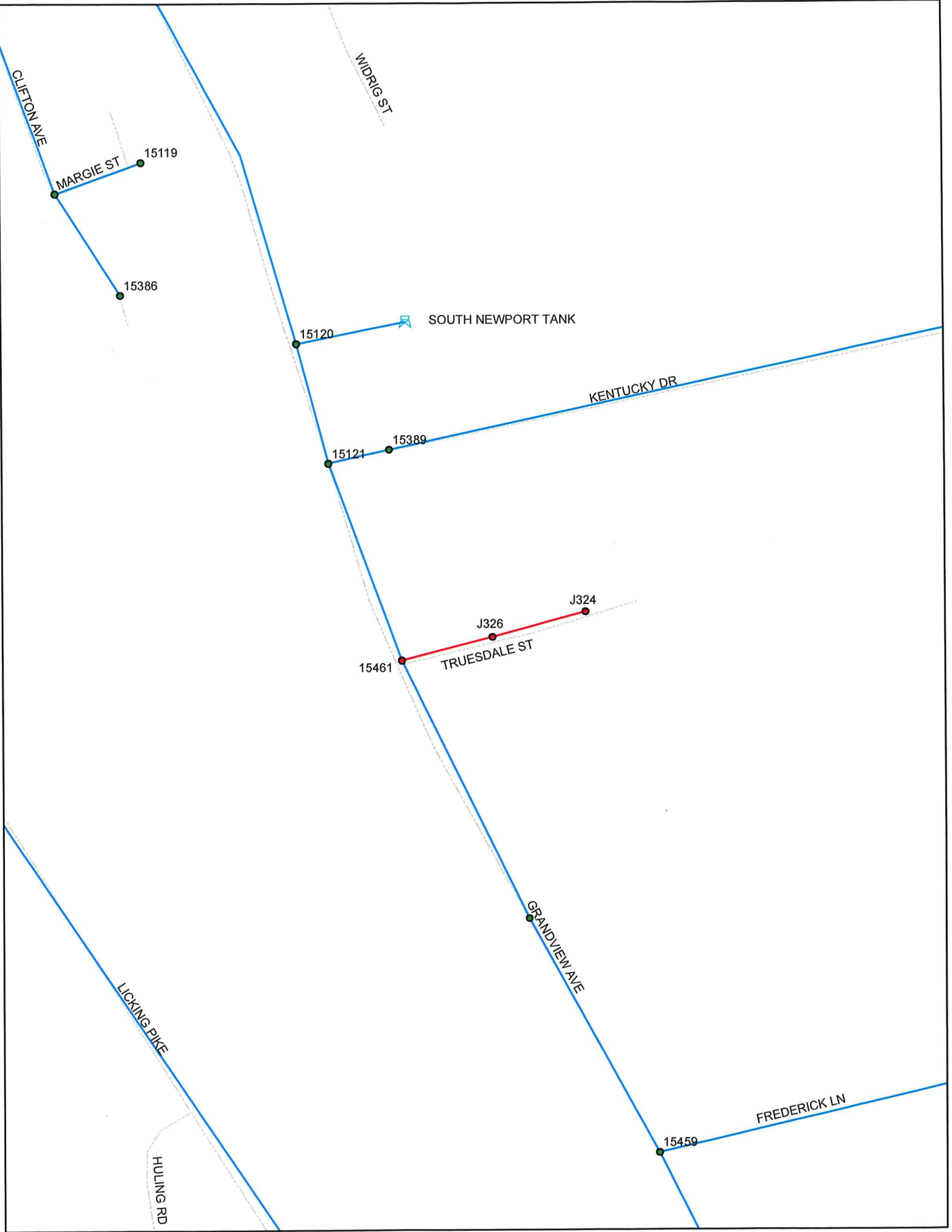
Clifton Avenue

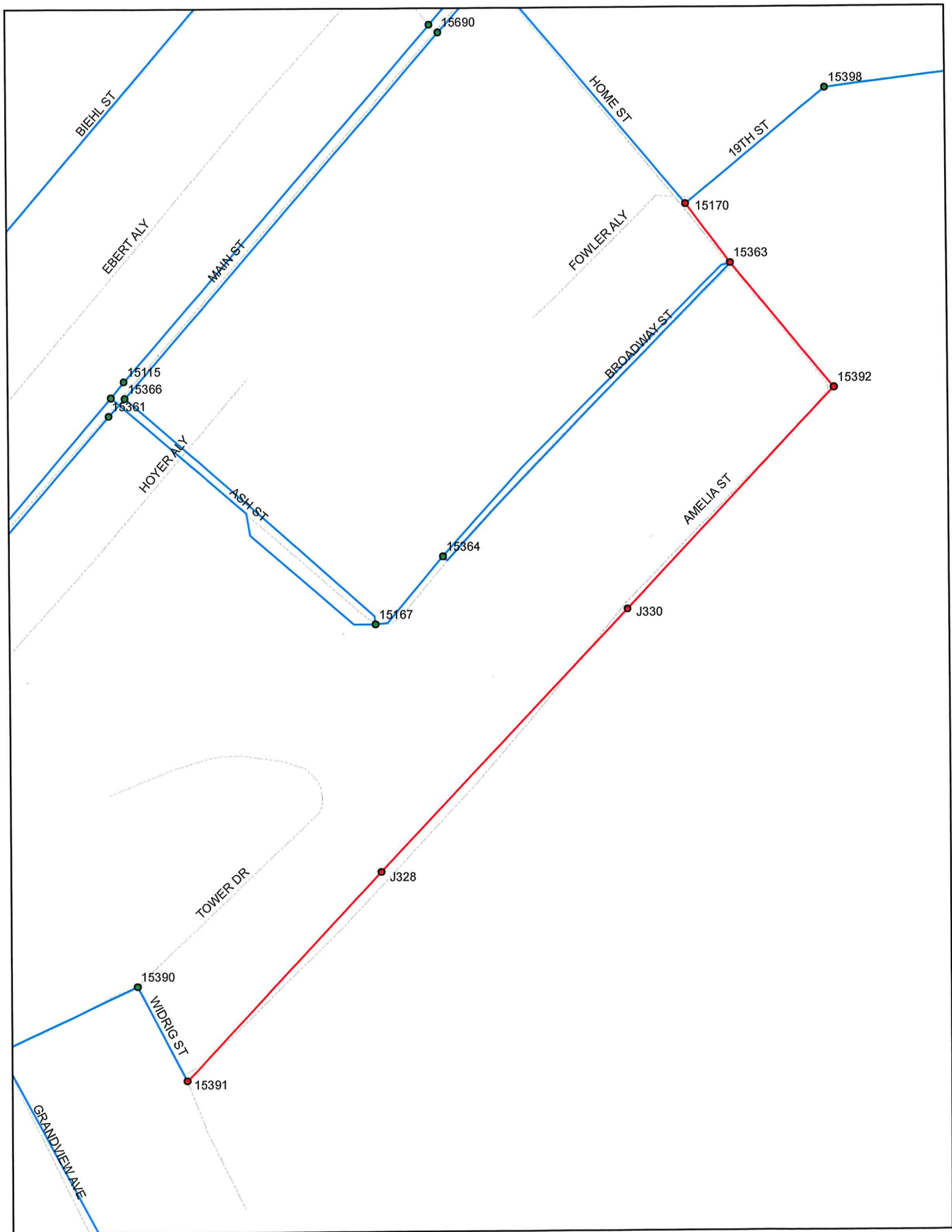
Maximum Hour Run, Maximum Available Flow				
ID	Demand, gpm	Elevation, ft	Grade, ft	Pressure, psi
15290	17.3	600	949.9	151.6
15287	17.3	597	949.9	152.9
15324	17.3	650	949.8	129.9
15318	17.3	670	949.8	121.2
15317	17.3	735	949.8	93.1
15403	11.2	638	950.0	135.2
J322	11.2	600	950.0	151.7
J320	11.2	580	950.0	160.3
15402	11.2	580	950.0	160.3
15461	5.8	784	949.1	71.5
J326	5.8	782	949.1	72.4
J324	5.8	794	949.1	67.2
15391	10.3	748	950.0	87.5
J328	10.3	732	950.0	94.5
J330	10.3	688	950.1	113.6
15392	10.3	650	950.3	130.1
15363	10.3	655	950.3	128.0
15170	10.3	650	950.3	130.1
15373	10.0	626	922.2	128.4
J336	10.0	617	926.0	133.9
15178	10.0	611	929.8	138.1
15176	10.0	596	933.7	146.3
15371	0.0	528	917.1	168.6
J338	0.0	548	909.0	156.4
15372	1500.0	580	900.9	139.0

<u>Pipe ID</u>	<u>From Node</u>	<u>To Node</u>
15307	15287	15290
15348	15287	15324
15347	15324	15318
15340	15318	15317
P501	J322	15403
P499	J320	J322
15442	15402	J320
P503	15461	J326
P505	J326	J324
15430	15391	J328
P507	J328	J330
P509	J330	15392
15431	15392	15363
15396	15170	15363
15409	J336	15373
P521	15178	J336
15183	15176	15178
15408	15371	J338
P523	J338	15372









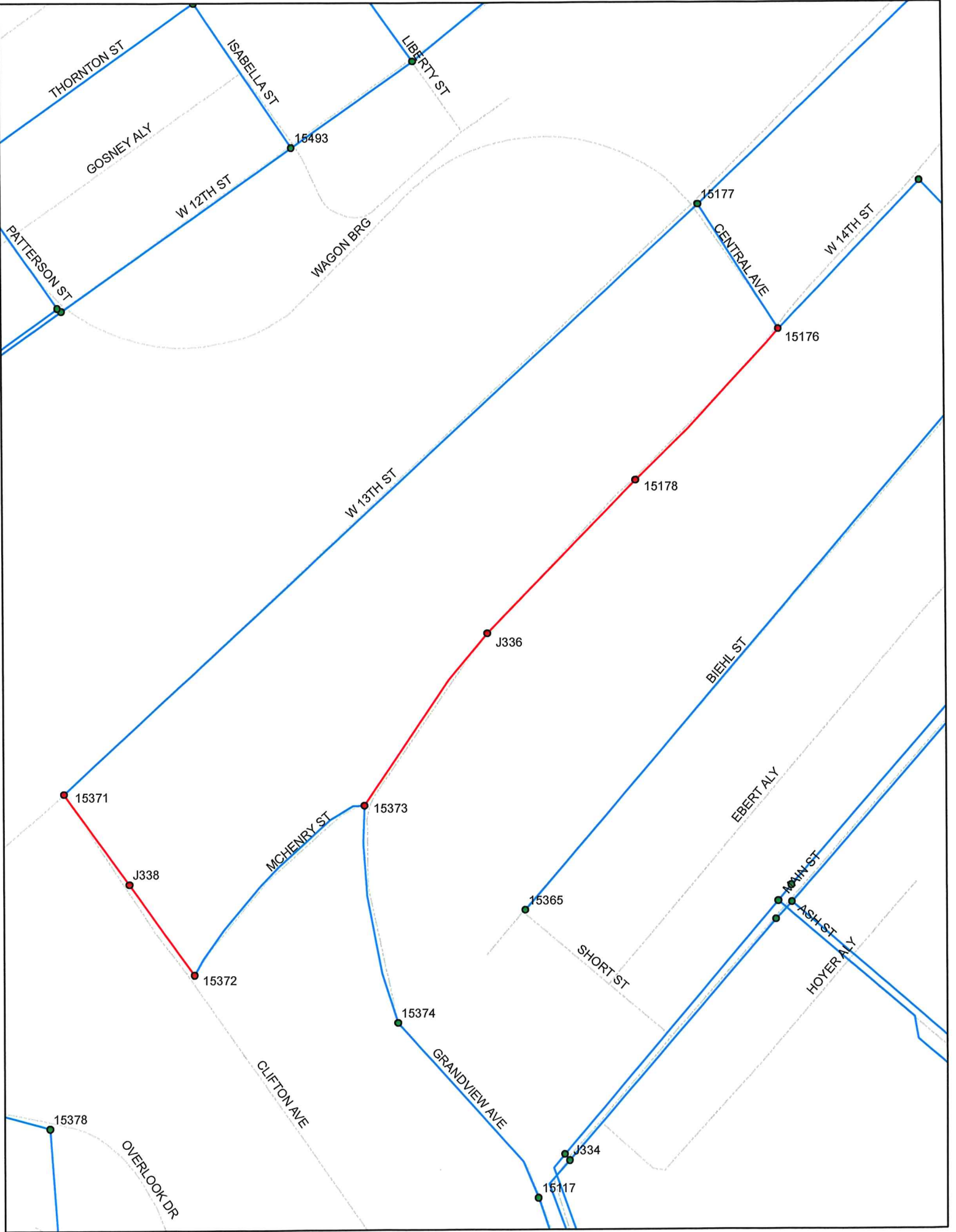




EXHIBIT A-6

**SPECIFICATIONS PREPARED AND DIGITALLY SIGNED BY
A P.E.**



NEWPORT WMR – PHASE 3

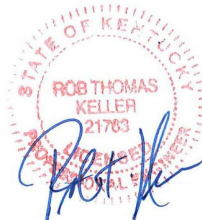
SPECIFICATIONS

NORTHERN KENTUCKY WATER DISTRICT

Newport Water Main Replacement
Phase 3 of WX 21037311
Newport, Campbell County, Kentucky

January 2025

COMPILED BY:
Northern Kentucky Water District (Owner)
2835 Crescent Springs Road
Erlanger, Kentucky 41018



S P E C I F I C A T I O N S

FOR

NORTHERN KENTUCKY WATER DISTRICT

Newport Water Main Replacement **Phase 3 of WX21037311** **Newport, Campbell County, Kentucky**

January 2025

GOVERNING BODY

COMMISSIONERS:

FRED MACKE, JR - CHAIR
JODY R. LANGE, CPA, CGMA - VICE CHAIR
DOUG WAGNER - SECRETARY
NICHOLAS WINNIKE - TREASURER
GARY E. HOLLAND - COMMISSIONER
JOSEPH J. KOESTER – COMMISSIONER

LINDSEY RECHTIN - PRESIDENT/CEO

COMPILED BY:

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Section 00020

INVITATION TO BID

Date: January 16, 2025 & February 6, 2025

The Northern Kentucky Water District (Owner) is requesting Bids for the construction of the following Project:

**PROJECT: Newport Water Main Replacement
Phase 3 of WX21037311
Newport, Campbell County, Kentucky**

BID SUBMISSION: SEALED BIDS WILL BE RECEIVED BY THE NORTHERN KENTUCKY WATER DISTRICT (OWNER) ONLY THROUGH THE ONLINE QUEST CDN WEBSITE (www.questcdn.com)

UNTIL: Date: February 27, 2025
Time: 2:00 PM local time

At said time, and promptly thereafter, all Bids that have been duly received will be opened. Entities on the registered list of plan holders will be sent a link to attend the virtual bid opening. The public may access the virtual bid opening by emailing Cassandra Zoda at czoda@nkywater.org to get the meeting number and password.

BRIEF PROJECT DESCRIPTION: The proposed Work is generally described as follows: Construction of approximately 7,994 linear feet of 8" PVC & ductile iron water main together with the appurtenances and related work for water main replacement on portions of E. 3rd Street, E. 5th Street, E. 7th Street, Roberts Street, Oak Street, and Linden Avenue in Newport, Campbell County, Kentucky. The project shall be completed within 700 calendar days. Liquidated damages shall be assessed at \$500 per calendar day.

PROJECT DOCUMENTS: To view the bid documents, go to [Northern Kentucky Water District \(nkywater.org/procurement\)](http://NorthernKentuckyWaterDistrict.nkywater.org/procurement) in the section labeled "Current Procurement Items" at the top of the page and click the link to be click the link titled "Quest CDN Online Interface" redirected to the Quest CDN Electronic Bid Online Interface.

This bid is listed as Quest eBid Doc # **9489314**.

The project documents may be downloaded by registering with Quest CDN online at www.questcdn.com or by calling 952-233-1632. After registration is complete, an On-Line Bid ID code must be created by clicking on "My Account", then the "User Info" tab. A prospective bidder will create this code in the designated field per requirements noted. To be considered a Plan-holder, a bidder must complete registration and download the Proposal Documents in digital form for a \$22.00 charge. There will be a charge of \$42.00 to submit a bid. Plan-holders will receive addenda and other proposal document updates via Quest CDN. Prospective bidders must be on the plan holders list through Quest CDN for a bid to be accepted.

FUNDING: This project is funded by the Kentucky Drinking Water State Revolving Fund (SRF) with federal funds provided by the Environmental Protection Agency and Kentucky Infrastructure Authority – Clean Water Program funds. The Successful Bidder and all Subcontractors will be required to conform to the Uniform Guidance Contract Requirements set forth in the Contract Documents.

BIDDER QUALIFICATIONS & AWARD: All Bids must be in accordance with the Bidding and Contract Documents. Bids will be received on a unit price and/or lump sum basis as described in the Contract Documents.

Each Bid must contain evidence of Bidder's qualifications to transact business in the State of Kentucky or covenant to obtain such qualifications prior to award of the Contract. The Bidder's Organization Number from the Kentucky's Secretary of State and principal place of business as filed with Kentucky's Secretary of State must be included where applicable.

Bid security, in the form of an electronic Bid Bond (insuring/bonding company shall be rated "A" by AM Best) in the amount of ten percent (10%) of the maximum total bid price, must accompany each Bid.

The Successful Bidder will be required to furnish a Construction Payment Bond and a Construction Performance Bond (insuring/bonding company shall be rated "A" by AM Best) as security for the faithful performance of the contract and the payment of all bills and obligations arising from the performance of the Contract.

SRF requirements (including American Iron and Steel and Davis Bacon) and provisions must be met by the Bidder and all subcontractors. SRF requires federal prevailing wage rates to be paid to all employees of the Bidder and all employees of any subcontractor.

All Bidders must comply with the President's Executive Order No. 11246 (Equal Employment Opportunity) as amended, which prohibits discrimination in employment regarding race, creed, color, sex, or national origin.

All Bidders must comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, and the Contract Work Hours Standard Act.

All Bidders, Contractors and Subcontractors must comply with 41 CFR 60-4, in regard to Affirmative Action, to ensure equal opportunity to females and minorities and will apply the timetables and goals set forth in 41 CFR 60-4.

Bidders must make positive efforts to use small, minority, women-owned and disadvantaged businesses.

Evaluation of Bids and the awarding of the final contract are subject to the reciprocal preference for Kentucky resident bidders pursuant to KRS 45A.490 to 45A.494 and KAR 200 5:400.

All Bidders must comply with OSHA (P.L. 91-596) and the Contract Work Hours and Safety Standards Act (P.L. 91-54).

The Successful Bidder and all Subcontractors will be required to conform to the labor standards set forth in the Contract Documents. This procurement is subject to Kentucky Division of Water Procurement Guidance including the Davis-Bacon Act.

Owner reserves the right to reject any or all Bids, including without limitation the right to reject any or all nonconforming, non-responsive, incomplete, unbalanced, or conditional Bids, to waive informalities, and to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of Owner to make an award to that Bidder. Owner also reserves the right to negotiate with the apparent successful Bidder(s) to such an extent as may be determined by Owner.

Small, Minority, and Disadvantaged Business Enterprises are encouraged to bid on this project.

Bids shall remain subject to acceptance for 97 days after the day of bid opening or for such longer period of time to which a Bidder may agree in writing upon request of the Owner. If a Contract is to be awarded, the Owner will give the successful Bidder a Notice of Award during the period of time during which the successful Bidder's bid remains subject to acceptance.

Award of the Contract will be made to the lowest, responsive, responsible bidder as specified in the Instructions to Bidders.

The Northern Kentucky Water District is an Equal Opportunity Employer.

SALES TAX EXEMPTION: The Contract Price shall not include sales tax for building materials, fixtures, or supplies purchased by the Successful Bidder which will be permanently incorporated into a structure or improvement to real property, or will be completely consumed, in fulfilling a construction contract for the purpose of furnishing water or sewer services to the general public under KRS 139.480. The Successful Bidder agrees to utilize Kentucky Department of Revenue Form 51A383 when making sales tax exempt purchases for the Work.

INSTRUCTIONS TO BIDDERS: For all further requirements regarding bid submittal, qualifications, procedures, and contract award, refer to the Instructions to Bidders that are included in the Bidding Documents.

Section 00100

INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS. Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof:

- a. *Bidder* - The individual or entity who submits a Bid directly to Owner.
- b. *Successful Bidder* – The lowest responsible Bidder submitting a responsive Bid to who Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award.

2. COPIES OF CONTRACT DOCUMENTS. Complete sets of Contract Documents must be used in preparing Bids; Bidder shall have sole responsibility for errors or misrepresentations resulting from the use of incomplete sets of Bidding Documents.

Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

Contract Documents are available electronically via QuestCDN. In accord with NKWD Open Record Policy, planholders may request larger plan drawings in paper form by submitting an [open records request form](#).

3. QUALIFICATIONS OF BIDDERS. Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders to perform the services in accordance with the Contract Documents. To demonstrate Bidder's qualifications to perform the Work, within five days of Owner's request Bidder shall submit written evidence such as financial data, previous experience, present commitments, and such other data as may be requested by Owner. Bidders who have not, in the Owner's opinion, had sufficient experience in the size and type of work involved may not be considered.

Each Bid must contain evidence of Bidder's qualifications to transact business in the State of Kentucky or covenant to obtain such qualifications prior to award of the Contract. The Bidder's Organization Number from the Kentucky's Secretary of State and principal place of business as filed with Kentucky's Secretary of State must be included where applicable.

Each Bidder must be registered as a plan holder with Owner via QuestCDN. There shall be no substitution of bidders without proper registration with the Owner.

SRF requirements (including American Iron and Steel and Davis Bacon) and provisions must be met by the Bidder and all subcontractors. SRF requires federal prevailing wage rates to be paid to all employees of the Bidder and all employees of any subcontractor.

All Bidders must comply with the President's Executive Order No. 11246 (Equal Employment Opportunity) as amended, which prohibits discrimination in employment regarding race, creed, color, sex, or national origin.

All Bidders must comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, and the Contract Work Hours Standard Act.

All Bidders, Contractors and Subcontractors must comply with 41 CFR 60-4, in regard to Affirmative Action, to ensure equal opportunity to females and minorities and will apply the timetables and goals set forth in 41 CFR 60-4.

Bidders must make positive efforts to use small, minority, women-owned and disadvantaged businesses.

All Bidders must comply with OSHA (P.L. 91-596) and the Contract Work Hours and Safety Standards Act (P.L. 91-54).

The Successful Bidder and all Subcontractors will be required to conform to the labor standards set forth in the Contract Documents. This procurement is subject to Kentucky Division of Water Procurement Guidance including the Davis-Bacon Act.

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE. It is the responsibility of each Bidder, before submitting a Bid, to:

- a. thoroughly examine and study the Instructions to Bidders and the Contract Documents, including any Addenda;
- b. visit the Site and become familiar with and satisfy Bidder as to the general, local, and site conditions that may affect cost, progress, performance, or furnishing of the Work;
- c. become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, performance, or furnishing of the Work;
- d. agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times and in accordance with the other terms and conditions of the Contract Documents;
- e. correlate the information known to Bidder, information and observations obtained from visits to the Site, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents;
- f. promptly give Owner written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Contract Documents and confirm that the written resolution thereof by Owner is acceptable to Bidder; and
- g. determine that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

4.01. Underground Facilities. Information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner or others, and Owner and Engineer disclaim responsibility for the accuracy or completeness thereof, unless it is expressly provided otherwise in the Supplementary Conditions.

4.02. Additional Information. Before submitting a Bid, each Bidder may, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests, and studies and obtain any additional information and data which pertain to subsurface or physical conditions at or contiguous to the Site or otherwise, which may affect cost, progress, performance, or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents. Each Bidder shall be responsible for any claims for personal injury, death or damage to property caused by Bidder's entry on public or private property and shall defend and indemnify Owner and all other parties against any such claims.

4.03. Bidder's Representation. The submission of a Bid will constitute an incontrovertible representation and covenant by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Contract Documents, that Bidder has given Owner written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Contract Documents and the written resolutions thereof are acceptable to Bidder, and that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

5. SITE AND OTHER AREAS. The Site is identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Contract Documents.

6. INTERPRETATIONS AND ADDENDA. All questions about the meaning or intent of the Bidding Documents are to be submitted to Owner in writing. Any interpretations or clarifications that are considered necessary by Owner in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Owner as having received the Bidding Documents. Questions received less than 72 hours prior to the date for opening of Bids may not be answered. The person submitting questions shall be responsible for their prompt delivery. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

Owner will not be responsible for explanations or interpretations of the Bidding Documents or Contract Documents except as issued in accordance herewith.

7. BID SECURITY. Each Bid must be accompanied by Bid security made payable to Owner in an amount of 10 percent of Bidder's maximum Bid price and in the form of a Bid Bond (on the form attached) issued by a surety meeting the requirements of paragraphs 5.01 and 5.02 of the General Conditions and shall be rated "A" by AM BEST.

Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may annul the Notice of Award and Bid security of that Bidder will be forfeited. Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Agreement or one day after the last day the Bids remain subject to acceptance, whereupon Bid security furnished by such Bidders will be returned.

8. CONTRACT TIMES. The numbers of days within which, or the dates by which, the Work is to be (a) Substantially Completed and (b) also completed and ready for final payment are set forth in the Agreement.

9. LIQUIDATED DAMAGES. Provisions for liquidated damages, if any, are set forth in the Agreement.

10. SUBSTITUTE OR "OR-EQUAL" ITEMS. The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "or-equal" items. Whenever it is specified or described in the Bidding Documents that a substitute or "or-equal" item of material or equipment may be furnished or used by Contractor if acceptable to Owner, application for such acceptance will not be considered by Owner until after the Effective Date of the Agreement. The procedure for submission of any such application by Contractor and consideration by Owner is set forth in the General Conditions and may be supplemented in the General Requirements.

11. SUBMITTING AN ONLINE BID. Proceed to the QuestCDN website at www.questcdn.com. You will be asked to sign into your account or create a free QUESTCDN account by clicking the 'join' link. Contact QUESTCDN at 952-233-1632 or info@questcdn.com for assistance in membership registration, downloading the project and vbid online bid submittal.

The QUESTCDN eBid Doc number for this project is: **#9002866**

To access the bid form, click the online bidding button at the top of bid advertisement. The on-line bid button will be available when the project is published and open for bidding. There is a fee of \$42.00 to submit your bid.

12. PREPARATION OF BID. In addition to the Bid Worksheet in QuestCDN, the following items are included with the Bidding Documents must be submitted via QuestCDN:

1. Bid Disclosure Form (Section 00300)
2. Certification Regarding Debarment, Suspension and Other Responsibility Matters (EPA Form 5700-49). (Section 00810 - Attachment No. 9)
3. Certification Regarding Lobbying, Certification for Contracts, Grants, Loans and Cooperative Agreements. (Section 00810 - Attachment No. 10)
4. Statement of Bidder's Qualifications (Section 00301 - Attachment No. 1)
5. Bidder's Experience Record (Section 00301 - Attachment No. 2)
6. Proposed Subcontractors (Section 00301 - Attachment No. 3)
7. Bid Security (Section 00410)
8. Non-Collusion Affidavit (Section 00460)
9. Required Notarized Affidavit for Bidders, Offerors, and Contractors Claiming Kentucky Resident Bidder Status (Section 00470)

All blanks on the Bid Disclosure Form shall be completed by printing in ink or by typewriter and the Bid signed. A Bid price shall be indicated for each lump sum bid item and/or unit price item listed therein, or the words "No Bid", "No Change", or "Not Applicable" entered.

A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.

A Bid by a limited liability company shall be executed in the name of the firm by a member (if member-managed) or manager (if manager-managed) and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown below the signature.

A Bid by an individual shall show the Bidder's name and official address.

A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Disclosure Form. The official address of the joint venture must be shown below the signature.

All names shall be typed or printed in ink below the signatures.

The QuestCDN system will require Bidders to download and acknowledge all addenda prior to submitting a Bid.

The address, email, and telephone number for communications regarding the Bid shall be shown on the Bid Disclosure Form.

The Bid shall identify whether the Bidder is a resident or nonresident bidder for purposes of Kentucky's reciprocal preference statute (KRS 45A.490 to 45A.494 and 200 KAR 5:400). If the Bidder is claiming a "resident bidder" status as defined in KRS 45A.494(2), the Bid shall include a properly executed and notarized affidavit affirming that it meets the criteria to be considered such a resident bidder. If requested by Owner, Bidder shall also provide documentation proving such resident bidder status; failure to do so shall result in disqualification of the Bidder or contract termination.

While the Bidder should consult the applicable statutes and regulation, generally speaking, a "resident bidder" is an individual or business entity that, on the date the contract is first advertised or announced as available for bidding: (a) is authorized to transact business in the Commonwealth; AND (b) has for one (1) year prior to and through the date of the advertisement, (i) filed Kentucky corporate income taxes, (ii) made payments to the Kentucky unemployment insurance fund established in KRS 341.490, and (iii) maintained a Kentucky workers' compensation policy in effect. A "nonresident bidder" is any other individual or business entity.

13. BASIS OF BID. Bidders shall submit a Bid on the specified unit price and/or lump sum basis (as specified) for each item of Work listed in the Bid schedule. The total of all estimated prices will be determined as the sum of the products of the estimated quantity of each item and the unit and/or lump sum price Bid for the item. The final quantities and Contract Price will be determined in accordance with paragraph 11.03 of the General Conditions and as amended in the Supplemental Conditions.

Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words. Discrepancies between the QuestCDN bid worksheet and the Bid Disclosure Form shall be resolved in favor of the QuestCDN bid worksheet.

14. SUBMITTAL OF BID. A Bid shall be submitted via QuestCDN no later than the date and time prescribed and at the place indicated in the advertisement or invitation to Bid. Bidder shall assume full responsibility for timely submission of Bids. Bids will not be accepted after the time and date for receipt of Bids. Paper, oral, telephone, facsimile, email, or telegraph Bids are invalid and will not receive consideration.

15. MODIFICATION AND WITHDRAWAL OF BIDS. Prior to the bid opening, a Bid may be modified or withdrawn via the QuestCDN electronic bid service only. For a period ending 72 hours after Bids are opened, any Bidder may request the withdrawal of its Bid by filing with Owner a duly signed written notice and otherwise demonstrating by clear and convincing evidence to the reasonable satisfaction of Owner that the Bid was submitted in good faith but there was a material and/or substantial mistake in the preparation of its Bid. If the withdrawal

of the Bid is approved by the Owner in its sole discretion, the Bid security will be returned. Without the advanced full disclosure by the withdrawing Bidder to and written consent of the Owner, (a) no Bid shall be withdrawn under this section when the result would be the awarding of the contract on another Bid of the same Bidder or of another Bidder in which the withdrawing Bidder has a direct or indirect equitable interest and (b) no Bidder who is permitted to withdraw a Bid shall, for compensation, supply any material or labor to or perform any subcontract or other work agreement for the Bidder to whom the contract is awarded or otherwise benefit, directly or indirectly, from the performance of the Project.

16. OPENING OF BIDS. Bids will be opened electronically via Microsoft Teams meeting at the time indicated in the advertisement or Invitation to Bid. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

17. BIDS TO REMAIN SUBJECT TO ACCEPTANCE. All Bids will remain subject to acceptance for the period of time stated in the Bid Disclosure Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

18. AWARD OF CONTRACT. Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, non-responsive, incomplete, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder which it finds, after reasonable inquiry and evaluation, to be non-responsive. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Owner to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate with the apparent Successful Bidder(s) to such an extent as may be determined by Owner. The Owner also reserves the right to increase or decrease the quantities of work per the General Conditions.

In evaluating Bids, Owner will consider, among other lawful considerations, the following:

- a. Whether or not the Bid complies with the prescribed requirements, and provides such alternates, unit prices and other information or data as may be requested in the Bid Form or prior to the Notice of Award.
- b. The qualifications of the Bidder.
- c. If the Bidder maintains a permanent place of business.
- d. If the Bidder has adequate personnel and equipment to perform the Work properly and expeditiously.
- e. Bidder's financial status to meet all obligations and incidentals to the Work.
- f. Whether the Bidder has appropriate technical expertise and experience.
- g. Bidder's performance record.
- h. The amount of the total base bid and the best bid, exclusive of any additive alternates, if applicable. Any additive alternates will be considered after selection of the lowest Total Base Bid. Each additive alternate will be considered and selected or not selected individually, at Owner's discretion, for inclusion in the work.

In addition, the evaluation of Bids will be subject to the reciprocal preference for Kentucky resident bidders pursuant to KRS 45A.490 to 45A.494 and KAR 200 5:400. These statutes and regulation provide in part as follows: (a) a resident bidder of the Commonwealth shall be given a preference against a nonresident bidder registered in any state that gives or requires a preference to bidders from that state; (b) the preference shall be equal to the preference given or required by the state of the nonresident bidder; (c) this preference shall not be applied against nonresident bidders residing in states that do not give preference against Kentucky bidders; (d) if a procurement determination results in a tie between a resident bidder and a nonresident bidder, preference shall be given to the resident bidder; and (e) the preference shall not result in a nonresident bidder receiving a preference over another nonresident bidder.

Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders to perform the Work in accordance with the Contract Documents, including, without limitation, a Bidder's claim that it is a resident bidder for purposes of Kentucky's preference statute.

19. CONTRACT SECURITY AND INSURANCE. Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment Bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by such Bonds.

20. SIGNING OF AGREEMENT. When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents identified in the Agreement as attached thereto. Within **15 days** thereafter, the Successful Bidder shall sign, leaving the dates blank, and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within **15 days** thereafter, Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

21. SALES TAX EXEMPTION. The Contract Price shall not include sales tax for building materials, fixtures, or supplies purchased by the Successful Bidder which will be permanently incorporated into a structure or improvement to real property, or will be completely consumed, in fulfilling a construction contract for the purpose of furnishing water or sewer services to the general public under KRS 139.480. The Successful Bidder agrees to utilize Kentucky Department of Revenue Form 51A383 when making sales tax exempt purchases for the Work.

22. RETAINAGE. Provisions concerning retainage are set forth on the Agreement.

23. DRINKING WATER STATE REVOLVING FUND LOAN. A portion of the funding for this project comes from a Drinking Water State Revolving Fund (DWSRF) loan. This loan originates with the United States Environmental Protection (USEPA) and has several provisions that directly impact the Bidder. These include:

1. A certificate that the Bidder, and any subcontractors used by the Bidder, are not on the Federal List of Debarred Contractors. (CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER MATTERS – EPA Form 5700-49) addresses this item and must be executed and included with the Bid.

2. A certification from the Bidder that no appropriate funds were or will be used for the purposes of lobbying the legislative or executive branches of the Federal government. (CERTIFICATION REGARDING LOBBYING) address this item and must be submitted with the Bid.

The DWSRF loan creates additional documentation requirements on both the Contractor and the Owner. These are set forth in the Supplemental General Conditions for Drinking Water State Revolving Fund Loans (DWSRF Supplemental General Conditions). The items identified, but not limited to, in this section must be submitted with the Bid. The remaining items identified in the DWSRF Supplemental General Conditions Section will be submitted by the low bidder within 21 days of the Bid Opening. The project will not be awarded until this information is received.

DWSRF funding requires a recipient to utilize minority or women owned businesses as subcontractors where possible. Certain information and documentation is required by the funding agencies and other governing bodies prior to awarding a necessary approval for this project. The BIDDER acknowledges, through the act of submitting a Bid, a commitment to submit the following documentation or information within 7 days of the Bid Opening. Failure to produce any of this documentation or information within the prescribed period will serve as grounds for rejection of the Bid. If the information is required from a subcontractor or vendor and is not produced within the prescribed, it will serve as grounds to replace the subcontractor or vendor with another company or product.

Specific items to be submitted within 7 days of the Bid Opening include:

- A. Disadvantage Enterprise Participation Policy (Attachment 11-Section 00810).
- B. List of DBE Bidders of Subcontractors (Attachment 11-Section 00810).

End of Section

Section 00150

Statement of Work

The proposed work is generally described as follows: Construction of approximately 7,994 linear feet of 8" PVC & ductile iron water main together with the appurtenances and related work for water main replacement on portions of E. 3rd Street, E. 5th Street, E. 7th Street, Roberts Street, Oak Street, and Linden Avenue in Newport, Campbell County, Kentucky. The project shall be completed within 700 calendar days. Liquidated damages shall be assessed at \$500 per calendar day.

End of Section

Section 00300

BID DISCLOSURE FORM

PROJECT IDENTIFICATION: **Newport Water Main Replacement
Phase 3 of WX21037311**

THIS BID IS SUBMITTED ELECTRONICALLY VIA QUEST CDN TO THE NORTHERN KENTUCKY WATER DISTRICT

THIS BID IS SUBMITTED BY: _____
(Bidder's Company Name)

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Contract Documents to perform all Work as specified or indicated in the Contract Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.
2. Bidder accepts all of the terms and conditions of the Invitation to Bid and the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 97 calendar days after the Bid opening, or for such longer period of time to which the Bidder may agree in writing upon request of Owner. Bidder understands that certain extensions to the time for acceptance of this Bid may require the consent of the surety for the Bid Bond.
3. In submitting this Bid, Bidder represents and covenants, as set forth in the Agreement, that:
 - a. Bidder has examined and carefully studied the Contract Documents, the other related data identified in the Contract Documents, and all Addenda, receipt of all of which is hereby acknowledged.
 - b. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - c. Bidder is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
 - d. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary explorations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.

- e. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
 - f. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
 - g. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
 - h. Bidder has given Owner written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Owner is acceptable to Bidder.
 - i. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
 - j. Bidder's Organization Number from Kentucky's Secretary of State is #_____ [if applicable] and Bidder is qualified to transact business in the State of Kentucky or hereby covenants to obtain such qualifications prior to award of the Contract.
4. Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
5. The Bidder understands and agrees that during the performance of the Contract, it shall maintain a presence within such proximity of the Site which will allow it to respond to an emergency at the Site within one hour of receiving notice of an emergency, including emergencies occurring during non-working hours. The Bidder shall provide a list of emergency phone numbers for such purposes. If the Bidder does not have such a presence, it may satisfy this requirement by sub-contracting with a sub-contractor that does have such a presence, provided that any such sub-contractor must be approved by the Owner, in its sole discretion, prior to the project pre-construction meeting.
6. Bidder will complete the Work for the following prices. Unit prices will be computed in accordance with paragraph of the General Conditions. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities provided, determined as provided in the Contract Documents.

REFERENCE COPY OF BID WORKSHEET

BID PRICING MUST BE SUBMITTED IN THE QUEST CDN WORKSHEET TO BE CONSIDERED

Note: Bidder agrees to perform all the following work described in the specifications and shown on the plans, for the unit prices indicated in the QuestCDN Bid Worksheet, copied below for reference:

Section A- East 3rd Street (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)			
Item Code	Item Description	UofM	Quantity
A1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (8"). (Detail 103, 103a, 104, 104a, 110)	LF	23
A2	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8") (Detail 103, 103a, 104, 104a, 110)	LF	1200
A3	6.03B C-900, C-909 Poly Vinyl Chloride (PVC) (8") - RESTRAINED JOINT	LF	100
A4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (12")	EA	2
A5	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6")	EA	1
A6	7.01 CONNECT TO EXISTING MAIN/TIE-IN (4")	EA	1
A7	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2
A8	8.03 REMOVE FIRE HYDRANT	EA	2
A9	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8")	EA	7
A10	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	30
A11	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (1.5") (Service line materials provided by NKWD)	EA	1
A12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (307 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (309 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (310 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (312 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (314 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (315 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (316 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (317 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (321 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (329 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (331 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (335 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (411 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (413 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (415 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (417 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (418 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (420 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (421 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (422 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A32	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (502 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A33	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (528 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A34	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (536 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A35	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (538 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A36	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (540 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A37	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (542 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A38	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (544 E 3rd Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1
A39	11.01 CONCRETE ENCASMENT	LF	20
A40	11.06 ANCHORING TEE AND BLOCK (12"x12"x8")	EA	2
A41	11.06 ANCHORING TEE AND BLOCK (8"x8"x8")	EA	2
A42	11.06 ANCHORING TEE AND BLOCK (8"x8"x6")	EA	2
A43	11.09 REDUCER (8"x6")	EA	1
A44	11.09 REDUCER (8"x4")	EA	1
A45	11.15 SLEEVE OUT EXISTING TEE	EA	2
A46	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	1460
A47	12.09 CONCRETE PAVEMENT (Trench)	SY	435
A48	12.11 CONCRETE CURBING	LF	50
A49	12.14 BEST MANAGEMENT PRACTICE	LS	1

Section B - East 5th Street				
Item Code	Item Description	UofM	Quantity	Unit Price
B1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (8"). (Detail 103, 103a, 104, 104a, 110)	LF	40	
B2	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8") (Detail 103, 103a, 104, 104a, 110)	LF	890	
B3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (12")	EA	2	
B4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6")	EA	1	
B5	7.01 CONNECT TO EXISTING MAIN/TIE-IN (4")	EA	2	
B6	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2	
B7	8.03 REMOVE FIRE HYDRANT	EA	2	
B8	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (12")	EA	2	
B9	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8")	EA	9	
B10	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	26	
B11	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (421 Washington Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (311 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (315 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (317 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (319 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (502 Overton Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (402 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (403 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (405 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (406 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (407 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (408 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (411 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (412 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (415 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (422 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (502 Monroe Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (425 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (429 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (433 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (437 E. 5th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
B32	11.01 CONCRETE ENCASEMENT	LF	20	
B33	11.04 PLUG AND BLOCK (6")	EA	1	
B34	11.06 ANCHORING TEE AND BLOCK (12"x12"x8")	EA	2	
B35	11.06 ANCHORING TEE AND BLOCK (8"x8"x8")	EA	1	
B36	11.06 ANCHORING TEE AND BLOCK (8"x8"x6")	EA	2	
B37	11.08 DUCTILE IRON CROSS (8"x8")	EA	1	
B38	11.09 REDUCER (8"x6")	EA	1	
B39	11.09 REDUCER (8"x4")	EA	2	
B40	11.15 SLEEVE OUT EXISTING TEE	EA	1	
B41	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	1150	
B42	12.09 CONCRETE PAVEMENT (Trench)	SY	309	
B43	12.11 CONCRETE CURBING	LF	10	
B44	12.14 BEST MANAGEMENT PRACTICE	LS	1	

Section C - East 7th Street						
Item Code	Item Description	UofM	Quantity	Unit Price		
C1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (8"). (Detail 103, 103a, 104, 104a, 110)	LF	44			
C2	6.02 B CLASS 50 or 52 DUCTILE IRON PIPE (6") - RESTRAINED JOINT	LF	30			
C3	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8") (Detail 103, 103a, 104, 104a, 110)	LF	1470			
C4	6.03B C-900, C-909 Poly Vinyl Chloride (PVC) (8") - RESTRAINED JOINT	LF	100			
C5	7.01 CONNECT TO EXISTING MAIN/TIE-IN (12")	EA	2			
C6	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6")	EA	4			
C7	7.01 CONNECT TO EXISTING MAIN/TIE-IN (4")	EA	2			
C8	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2			
C9	8.03 REMOVE FIRE HYDRANT	EA	2			
C10	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (12")	EA	3			
C11	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8")	EA	21			
C12	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6")	EA	2			
C13	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	40			
C14	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (2") (Service line materials provided by NKWD)	EA	1			
C15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (701 Monmouth Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (114 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (116 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (123 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (127 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (701 Dayton Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (135 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (702 Saratoga Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (203 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (204 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (209 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (211 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (212 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (213 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (214 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (224-226 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (225 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C32	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (227 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C33	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (229 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C34	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (230 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C35	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (233 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C36	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (234 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C37	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (235 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C38	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (645 Linden Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C39	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (701 Linden Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C40	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (807 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C41	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (808 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C42	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (809 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C43	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (810 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C44	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (818 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C45	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (822 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C46	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (824 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C47	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (646 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
C48	11.04 PLUG AND BLOCK (8")	EA	1			
C49	11.04 PLUG AND BLOCK (6")	EA	2			
C50	11.06 ANCHORING TEE AND BLOCK (12"x12"x8")	EA	2			
C51	11.06 ANCHORING TEE AND BLOCK (8"x8"x8")	EA	1			
C52	11.06 ANCHORING TEE AND BLOCK (8"x8"x6")	EA	2			
C53	11.06 ANCHORING TEE AND BLOCK (6"x6"x6")	EA	1			
C54	11.08 DUCTILE IRON CROSS (8"x8")	EA	4			
C55	11.09 REDUCER (8"x6")	EA	3			
C56	11.09 REDUCER (8"x4")	EA	2			
C57	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	2200			
C58	12.09 CONCRETE PAVEMENT (Trench)	SY	540			
C59	12.11 CONCRETE CURBING	LF	60			
C60	12.14 BEST MANAGEMENT PRACTICE	LS	1			

Section D - Roberts Street						
Item Code	Item Description	UofM	Quantity	Unit Price		
D1	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8") (Detail 103, 103a, 104, 104a, 110)	LF	1300			
D2	7.01 CONNECT TO EXISTING MAIN/TIE-IN (8")	EA	1			
D3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (4")	EA	3			
D4	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	1			
D5	8.03 REMOVE FIRE HYDRANT	EA	1			
D6	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8")	EA	5			
D7	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	53			
D8	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (601 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D9	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (218 E. 6th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D10	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (611 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D11	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (612 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (613 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (615 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (621 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (622A Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (622B Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (624 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (634 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (637 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (640 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (216 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (222 E. 7th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (711 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (712 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (714 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (715 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (716 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (717 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (720 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (723 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (724 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D32	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (725 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D33	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (726 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D34	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (223 E. 8th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D35	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (215 E. 8th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D36	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (222 E. 8th Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D37	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (805-807 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D38	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (808 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D39	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (812 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D40	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (815 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D41	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (816 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D42	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (817 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D43	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (822 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D44	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (825 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D45	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (827 Roberts Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
D46	11.05 AIR RELEASE VALVE (ARV) and service line materials provided by NKWD)	EA	1			
D47	11.06 ANCHORING TEE AND BLOCK (8"x8"x6")	EA	1			
D48	11.08 DUCTILE IRON CROSS (8"x8")	EA	1			
D49	11.09 REDUCER (8"x4")	EA	3			
D50	11.18 PROVIDE & MAINTAIN TEMPORARY WATER SERVICE (800 block of Roberts)	LS	1			
D51	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	1570			
D52	12.09 CONCRETE PAVEMENT (Trench)	SY	426			
D53	12.11 CONCRETE CURBING	LF	10			
D54	12.12 CONCRETE SIDEWALK	SY	4			
D55	12.14 BEST MANAGEMENT PRACTICE	LS	1			

Section E - Oak Street				
Item Code	Item Description	UofM	Quantity	Unit Price
E1	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8") (Detail 103, 103a, 104, 104a, 110)	LF	500	
E2	6.03B C-900, C-909 Poly Vinyl Chloride (PVC) (8") - RESTRAINED JOINT	LF	90	
E3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6")	EA	2	
E4	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8")	EA	3	
E5	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	27	
E6	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (1") (Service line materials provided by NKWD)	EA	1	
E7	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (601 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E8	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (603 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E9	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (604 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E10	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (605 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E11	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (607 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (608 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (609 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (610 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (611 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (612 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (613 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (616 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (623 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (625 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (629 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (630 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (631 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (635 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (636 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (638 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (639 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (640 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (641 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (643 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (644 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E32	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (647 Oak Street) - ** This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
E33	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	1	
E34	11.06 ANCHORING TEE AND BLOCK (8"x8"x8")	EA	1	
E35	11.09 REDUCER (8"x6")	EA	2	
E36	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	967	
E37	12.09 CONCRETE PAVEMENT (Trench)	SY	194	
E38	12.11 CONCRETE CURBING	LF	50	
E39	12.12 CONCRETE SIDEWALK	SY	36	
E40	12.14 BEST MANAGEMENT PRACTICE	LS	1	

Section F - Linden Avenue						
Item Code	Item Description	UofM	Quantity	Unit Price		
F1	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8") (Detail 103, 103a, 104, 104a, 110)	LF	2200			
F2	6.03B C-900, C-909 Poly Vinyl Chloride (PVC) (8") - RESTRAINED JOINT	LF	60			
F3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6")	EA	6			
F4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (4")	EA	1			
F5	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2			
F6	8.03 REMOVE FIRE HYDRANT	EA	2			
F7	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8")	EA	15			
F8	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	83			
F9	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (1") (Service line materials provided by NKWD)	EA	2			
F10	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (666 Nelson Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F11	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (508 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (510 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (514 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (524 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (528 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (530 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (534 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (536 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (538 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (605 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (607 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (610 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (612 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (614 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (615 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (616 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (618 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (619 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (620 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (627 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (628 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F32	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (629 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F33	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (630 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F34	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (631 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F35	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (633 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F36	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (634 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F37	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (638 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F38	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (640 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F39	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (641 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F40	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (643 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F41	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (644 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F42	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (703 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F43	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (704 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F44	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (707 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F45	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (708 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F46	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (710 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F47	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (711 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F48	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (712 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F49	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (713 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F50	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (714 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F51	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (717 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F52	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (719 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F53	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (720 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F54	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (721 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F55	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (722 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F56	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (726 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F57	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (727 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			
F58	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (728 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1			

F59	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (729 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F60	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (730 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F61	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (731 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F62	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (733 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F63	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (803 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F64	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (804 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F65	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (805 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F66	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (807 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F67	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (809 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F68	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (810 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F69	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (814 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F70	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (815 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F71	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (816 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F72	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (818 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F73	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (823 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F74	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (825 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F75	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (826 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F76	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (829 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F77	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (831 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F78	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (834 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F79	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (835 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F80	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (838 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F81	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (839 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F82	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (843 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F83	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (845 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F84	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (721 E. 9th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	
F85	11.06 ANCHORING TEE AND BLOCK (20"x20"x8")	EA	1	
F86	11.06 ANCHORING TEE AND BLOCK (8"x8"x8")	EA	4	
F87	11.06 ANCHORING TEE AND BLOCK (8"x8"x6")	EA	2	
F88	11.08 DUCTILE IRON CROSS (8"x8")	EA	1	
F89	11.09 REDUCER (8"x6")	EA	6	
F90	11.09 REDUCER (8"x4")	EA	1	
F91	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	3050	
F92	12.09 CONCRETE PAVEMENT (Trench)	SY	736	
F93	12.11 CONCRETE CURBING	LF	70	
F94	12.12 CONCRETE SIDEWALK	SY	52	
F95	12.14 BEST MANAGEMENT PRACTICE	LS	1	
Section G- Additional Items				
G1	10.10B PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT - Pressure Regulator & Expansion Tank Additive.	EA	55	

Total bid in words

7. Bidder agrees that the Work will be substantially complete within 670 calendar days after the date when the Contract Times commence to run as provided in paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with paragraph 15.06.B of the General Conditions within 700 calendar days after the date when the Contract Times commence to run.

The terms used in this Bid with initial capital letters have the meanings indicated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions. The terms in this Bid, which are defined in the General Conditions included as part of the Contract Documents, have the meanings assigned to them in the General Conditions.

8. References

Contact Person	Company Name	Phone No.	Project Name
1.			
2.			
3.			
4.			

SUBMITTED on _____, 2025.

9. Communications concerning this Bid shall be sent to Bidder at the following address:

Phone: _____
Email: _____

AUTHORIZED SIGNATURE OF BIDDER
(see signature instructions below)

Individual/Entity Name/DBA _____(print)

By: _____(sign)
(Attach evidence of authority to sign if a corporation, LLC, joint venture, or partnership)

Title: _____

Business address _____

Phone No.: _____ Fax No.: _____

Email Address for Electronic Signatures: _____

Date _____

Signatures should meet the following requirements:

- Signatures for partnerships must be made by a general partner.
- Signatures for LLCs must be made by a manager or member, as dictated by the entity's Articles of incorporation/bylaws.
- If a joint venture, each venturer must complete the above complete the above authorized signature of bidder form and attach a copy to the Bid Disclosure Form.

Section 00301

SUPPLEMENTS TO BID FORM

1. FORMS TO BE SUBMITTED WITH BID

- A. Bid Disclosure Form (Section 00300)
- B. Certification Regarding Debarment, Suspension and Other Responsibility Matters
- EPA Form 5700-49 (Attachment No. 9 – Section 00810)
- C. Certification Regarding Lobbying (Attachment No. 10 – Section 00810)
- D. Statement of Bidder's Qualifications (Attachment No. 1)
- E. Bidder's Experience Record (Attachment No. 2)
- F. Proposed Subcontractors (Attachment No. 3)
- G. Bid Security (Specification Section 00410)
- H. Non-Collusion Affidavit (Specification Section 00460)
- I. Required Notarized Affidavit for Bidders, Offerors, and Contractors Claiming
Kentucky Resident Bidder Status (Specification Section 00470)

2. FORMS TO BE SUBMITTED WITHIN 7 DAYS OF BID OPENING

Certain information and documentation is required by the funding agencies and other governing bodies prior to awarding a necessary approval for this project. The BIDDER acknowledges, through the act of submitting a Bid, a commitment to submit the following documentation or information within 7 days of Bid Opening. Failure to produce any of this documentation or information within the prescribed period will serve as grounds for rejection of the Bid. If the information is required from a subcontractor or vendor and is not produced within the prescribed time, it will serve as grounds to replace the subcontractor or vendor with another company or product.

Specific items to be submitted within 7 days of the Bid opening include:

- A. Disadvantage Enterprise Participation Policy (Attachment 11 – Section 00810)
- B. List of DBE Bidders of Subcontracts (Attachment 11 – Section 00810)

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions shall be answered or the bid document will be incomplete. All data given shall be clear and comprehensive. This statement shall be notarized. If necessary, questions may be answered on separate sheets. The Bidder may submit any additional information it desires. If the Bidder is a joint venture, submit pervious joint venture projects. If joint venture has not completed prior projects of this magnitude then submit projects completed by joint venture partners.

1. Name of Bidder:
2. Permanent main office address:
3. When organized:
4. If a corporation, where incorporated:
5. How many years have you been engaged in operation of your business under your present firm or trade name:
6. Contracts on hand. (Schedule these, showing amount of each contract and the appropriate anticipated dates of completion.):
7. General character of work performed by your company:
8. Have you ever failed to complete any job awarded to you? If so, where and why?
9. Have you ever defaulted on a contract? If so, where and why?
10. List the more important projects completed by your firm, stating the approximate cost for each, and the month and year completed on attached sheet.
11. List your major equipment available for this work.
12. Experience in work similar in complexity, size and/or dollar value to this project. List and describe at least four on the table "Project References".
13. Background and experience of the principal members of your organization, including the officers in this type of work. (Attach)
14. Credit available: \$_____
15. Give bank reference: \$_____
16. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the Owner? ☐ Yes ☐ No

17. The undersigned hereby authorizes and requests any person, firm or corporation to furnish any information required by the Owner in verification of the statements made comprising this Statement of Bidder's Qualifications:

Dated at _____ this _____ day of _____

NAME OF BIDDER

BY _____

TITLE _____

STATE OF _____

COUNTY OF _____

_____ being duly sworn deposes and says that he or she is

_____ of _____
(NAME OF ORGANIZATION)

And that the answers to the foregoing questions and all statements contained therein are true and correct.

Subscribed and sworn to before me this _____ day of _____, of this year _____.

(NOTARY PUBLIC)

My commission expires _____

BIDDER'S EXPERIENCE RECORD
(Projects need to be of similar size and nature)

Change Order Value				
Contract Value				
Size of Project (Length, Contract Duration)				
Project Type, Year of Completion				
Engineer Contact Name, Telephone #				
Project Name, Owner, Address, Telephone #				

PROPOSED SUBCONTRACTORS

The BIDDER's proposed subcontractors shall be listed below for the various branches of work included in the proposed contract. All subcontractors are subject to the approval of the OWNER.

Unless rejected or otherwise permitted by the OWNER, no substitutions or changes to the listing of the entities proposed to perform that branch of the work will be allowed following opening of the Bids.

Where the BIDDER proposes to perform the work with its own forces, the phrase "Prime Contractor" shall be entered in the box provided

Failure to submit a completed list shall be cause for rejection of the Bid.

Branch of Work	Name of Subcontractor
1. Water Main Installation	
2. Service Installation	
3. Paving	
4. Restoration / Seeding & Strawing	
5. Sawcutting	
6. Other:	
7. Other:	

BID BOND**BIDDER (Name and Address)**

SURETY (Name and Address of Principal Place of Business)

OWNER (Name and Address)

BID

BID DUE DATE _____

PROJECT (Brief Description Including Location)

BOND

BOND NUMBER _____

DATE (Not later than Bid due date) _____

PENAL SUM _____ (Words) _____ (Figures)

IN WITNESS WHEREOF Surety and Bidder intending to be legally bound hereby subject to the terms printed on the reverse side hereof do each cause this Bid Bond to be duly executed on its behalf by its authorized officer agent or representative

BIDDER**SURETY**

_____(Seal)

Bidder's Name and Corporate Seal

_____(Seal)

Surety's Name and Corporate Seal

 By _____
 Signature and Title

 By _____
 Signature and Title
 (Attach Power of Attorney)

 Attest _____
 Signature and Title

 Attest _____
 Signature and Title

-
- Note (1) Above addresses are to be used for giving required notice
 (2) Any singular reference to Bidder Surety OWNER or other party shall be considered plural where applicable

1 Bidder and Surety jointly and severally bind themselves their heirs executors administrators successors and assigns to pay to OWNER upon default of Bidder the penal sum set forth on the face of this Bond

2 Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents

3 This obligation shall be null and void if

3 1 OWNER accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents or

3 2 All Bids are rejected by OWNER or

3 3 OWNER fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and if applicable consented to by Surety when required by paragraph 5 hereof)

4 Payment under this Bond will be due and payable upon default by Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from OWNER which notice will be given with reasonable promptness identifying this Bond and the Project and including a statement of the amount due

5 Surety waives notice of and any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by OWNER and Bidder provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent

6 No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date

7 Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located

8 Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond Such notices may be sent by personal delivery commercial courier or by United States Registered or Certified Mail return receipt requested postage pre paid and shall be deemed to be effective upon receipt by the party concerned

9 Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer agent or representative who executed this Bond on behalf of Surety to execute seal and deliver such Bond and bind the Surety thereby

10 This Bond is intended to conform to all applicable statutory requirements Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length If any provision of this Bond conflicts with any applicable statute then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect

11 The term Bid as used herein includes a Bid offer or proposal as applicable

Section 00460

NON-COLLUSION AFFIDAVIT

STATE OF: _____)

COUNTY OF: _____) SS

_____, being first duly sworn, deposes

and says that he/she is the _____ of
(sole owner, a partner, president, secretary, etc.)

_____, the party making the foregoing bid; that such bid is genuine and not collusive or sham; that said bidder is not financially interested in, or otherwise affiliated in a business way with any other bidder on the same contract; that said bidder has not colluded, conspired, connived, or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner directly or indirectly sought by agreement or collusion, or communication or conference, with any person, to fix the price or affidavit of any other bidder, or that of any other bidder, or to secure any advantage against Owner, or any person or persons interested in the proposed Contract; and that all statements contained in said bid are true; and further, that such bidder has not, directly or indirectly submitted this bid, or the contents thereof, or divulged information of data relative thereto to any association or to any member or agent thereof.

AFFIANT

Sworn to and subscribed before me, a Notary Public in and for the above named

State and County, this _____ day of _____, 20 _____.

Notary Public

Notary ID Number:_____

My Commission Expires:_____

End of Section

Bid Description: Newport Water Main Replacement – Phase 3 of WX21037311
REQUIRED NOTARIZED AFFIDAVIT FOR BIDDERS, OFFERORS AND
CONTRACTORS CLAIMING KENTUCKY RESIDENT BIDDER STATUS

A. IS THE BIDDER OR OFFER CLAIMING KENTUCKY RESIDENT BIDDER STATUS? CHECK YES OR NO.

YES _____ NO _____

If yes, please proceed to complete Section B, a signed and notarized resident bidder affidavit is required.

If no, do not complete Section B, no resident bidder affidavit is required.

B. FOR BIDS AND CONTRACTS IN GENERAL:

The bidder or offeror hereby swears and affirms under penalty of perjury that, in accordance with KRS 45A.494(2), the entity bidding is an individual, partnership, association, corporation, or other business entity that, on the date the contract was first advertised or announced as available for bidding:

Is authorized to transact business in the Commonwealth of Kentucky; AND

Has for one year prior to and through the date this contract was first advertised or announced as available for bidding:

Filed Kentucky corporate income taxes;

Made payments to the Kentucky unemployment insurance fund established in KRS 341.490; and

Maintained a Kentucky workers' compensation policy in effect.

The undersigned acknowledges that the District reserves the right to request documentation supporting a bidder's claim of resident bidder status. Failure to provide such documentation upon request shall result in disqualification of the bidder or contract termination.

Signature

Printed Name

Title (if signing on behalf of an entity)

Date

State of _____)

)ss.

County of _____)

Sworn to and subscribed before me, a Notary Public in and for the above named State and County, this _____ day of _____, 20 _____.

Notary Public

Notary ID Number: _____

My Commission Expires: _____

(Note: The following standard form will be used for
Preparation of the agreement, after award of contract.)

Section 00500

AGREEMENT
Newport and Water Main Replacement
Phase 3 of WX21037311

THIS AGREEMENT is by and between the Northern Kentucky Water District (herein called Owner) and _____ (herein called Contractor).

Owner and Contractor, in consideration of the mutual covenants herein set forth, agree as follows:

Article 1. WORK.

Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: Construction of approximately 7,994 linear feet of 8" PVC & ductile iron water main together with the appurtenances and related work for water main replacement on portions of E. 3rd Street, E. 5th Street, E. 7th Street, Roberts Street, Oak Street, and Linden Avenue in Newport, Campbell County, Kentucky. Construction of approximately 7,994 linear feet of 8" PVC & ductile iron water main together with the appurtenances and related work for water main replacement on portions of E. 3rd Street, E. 5th Street, E. 7th Street, Roberts Street, Oak Street, and Linden Avenue in Newport, Campbell County, Kentucky.

Article 2. ENGINEER.

The Project has been designed by **Bayer Becker** who is referred to in the Contract Documents as Engineer.

Article 3. CONTRACT TIMES, LIQUIDATED DAMAGES, DELAYS, AND DAMAGES.

All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

3.1. Contract Times. The Work will be substantially completed within **670** days after the date when the Contract Times commence to run as provided in paragraph 2.03.A of the General Conditions, and completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions within **700** days after the date when the Contract Times commence to run.

3.2. Liquidated Damages. Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expenses, and difficulties involved in proving in a legal proceeding the actual loss suffered by Owner if the Work is not

completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner \$ 500.00 for each day that expires after the time specified in paragraph 3.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times or any proper extension thereof granted by Owner, Contractor shall pay Owner as liquidated damages (but not as a penalty) \$ 500.00 for each day that expires after the time specified in paragraph 3.1 for completion and readiness for final payment until the Work is completed and ready for final payment.

Owner shall have the right to deduct the liquidated damages from any money in its hands, otherwise due, or to become due, to Contractor, or to initiate action to recover liquidated damages for nonperformance of this Contract within the time stipulated.

3.3. Delays and Damages. In the event Contractor is delayed in the prosecution and completion of the Work because of any delays caused by Owner or Engineer, Contractor shall have no claim against Owner or Engineer for damages (including but not limited to acceleration costs or damages) or contract adjustment other than an extension of the Contract Times and the waiving of liquidated damages during the period occasioned by the delay.

Contractor shall provide advance written notice to Owner and Engineer of Contractor's intention to accelerate the Work prior to commencing any acceleration. Such written notice shall include a detailed explanation of the nature and scope of the acceleration, the reason for the acceleration, the anticipated duration of the acceleration, and the estimated additional costs to Contractor, if any, related to the acceleration. This requirement shall not in any way affect or alter the agreement of Owner and Contractor with respect to delays and damages as set forth above and in Article 7 of the General Conditions.

Article 4. CONTRACT PRICE.

Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of that item as indicated in the Contractor's Bid, attached hereto as an exhibit, for the total amount of:

<hr/> (words)	<hr/> (figures)
<p>As provided in paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made as provided in paragraph 9.08 of the General Conditions and as modified by the Supplementary Conditions. Unit Prices have been computed as provided in paragraph 11.03 of the General Conditions.</p>	

Contractor acknowledges that the Contract Price shall not include sales tax for building materials, fixtures, or supplies purchased by Contractor which will be permanently incorporated into a structure or improvement to real property, or will be completely consumed, in fulfilling a construction contract for the purpose of furnishing water or sewer services to the general public

under KRS 139.480. Contractor agrees to utilize Kentucky Department of Revenue Form 51A383 when making sales tax exempt purchases under this Agreement.

Article 5. PAYMENT PROCEDURES.

Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Owner as provided in the General Conditions and as modified by the Supplementary Conditions.

5.1. Progress Payments. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 25th day of each month during performance of the Work. All such payments will be measured by the schedule of values established in paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.

5.2. Retainage. In addition to any amounts withheld from payment in accordance with Paragraph 14.02 of the General Conditions, Owner shall retain from progress payments amounts equal to the following percentages:

- a. Ten percent (10%) of the amount of the Work completed. This amount may be reduced by the Owner in its sole and absolute discretion, if the project is substantially completed; and
- b. Ten percent (10%) of the value of materials and equipment that are not incorporated in the Work but are delivered, suitably stored, and accompanied by documentation satisfactory to Owner as provided in paragraph 14.02 of the General Conditions. Retainage for stored materials and equipment will be released when the materials and equipment are incorporated in the Work.

All retainage will be paid to Contractor when the Work is completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions. Consent of the Surety shall be obtained before retainage is paid by Owner. Consent of the Surety, signed by an agent, must be accompanied by a certified copy of such agent's authority to act for the Surety.

5.3. Final Payment. Upon final completion and acceptance of the Work in accordance with paragraphs 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price as provided in said paragraph 14.07.

Article 6. CONTRACTOR'S REPRESENTATION.

In order to induce Owner to enter into this Agreement Contractor makes the following representations:

- a. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents

- b. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- c. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- d. Contractor has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary explorations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including applying the specific means, methods, techniques, sequences, and procedures of construction, if any, expressly required by the Contract Documents to be employed by Contractor, and safety precautions and programs incident thereto.
- e. Contractor does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- f. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- g. Contractor has correlated the information known to Contractor, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- h. Contractor has given Owner written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Owner is acceptable to Contractor.
- i. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

Article 7. CONTRACT DOCUMENTS.

The Contract Documents, which are incorporated as part of the Agreement, consist of the following:

- A. This Agreement;
- B. Uniform Guidance 2 CFR 200 Contract Requirements
- B. Performance Bond;
- C. Payment Bond;
- D. General Conditions;

- E. Supplementary Conditions;
- F. Specifications as listed in the table of contents of the Project Manual;
- G. Drawings consisting of a cover sheet and sheets numbered **C1.0** through **C9.3** inclusive, with each sheet bearing the following general title;
Newport Water Main Replacement – Phase 3 of WX21037311
- H. Addenda (numbers ___ to ___, inclusive);
- I. Exhibits to this Agreement (enumerated as follows):
 - 1. Notice to Proceed;
 - 2. Contractor's Bid;
 - 3. Documentation submitted by Contractor prior to Notice of Award;
- J. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - 1. Written Amendments;
 - 2. Work Change Directives;
 - 3. Change Orders.

There are no Contract Documents other than those listed above in this Article 7. The Contract Documents may only be amended, modified, or supplemented as provided in paragraphs 3.05 of the General Conditions.

Article 8. CONTRACT CORRECTION PERIOD.

Notwithstanding the reference to "one year after the date of Substantial Completion" at the beginning of paragraph 13.07.A of the General Conditions, the Contractor's Correction Period with respect to the obligations set forth in paragraph 13.07.A of the General Conditions shall be twenty-four (24) months after the issuance of "Certificate of Substantial Completion" for all machinery, piping, materials, equipment, fittings, roadway pavement work, general restoration, shoulder & ditch restoration furnished under the Contract Documents. The correction period referenced in paragraph 13.07.C of the General Conditions shall be twenty-four (24) months for all machinery, piping, materials, equipment, fittings and all roadway pavement work.

Article 9. COMPLIANCE WITH KENTUCKY LAW.

Contractor represents and warrants that it has revealed to Owner any and all final determinations of a violation of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 by Contractor or any subcontractor within the past five years. Contractor further represents and warrants that it and each of its subcontractors will remain in continuous compliance with the provisions of KRS Chapters 136, 139, 141, 337, 338, 341 and 342 for the duration of this Agreement. Contractor understands that its failure to reveal a final determination of a violation or to comply with the above statutory requirements constitutes grounds for cancellation of the Agreement and for disqualification of Contractor from eligibility for any contracts for a period of two years.

Article 10. EQUAL OPPORTUNITY.

Unless exempted under KRS 45.590, during the performance of the Agreement, the Contractor agrees as follows:

a. Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age forty (40) and over, disability, veteran status, or national origin;

b. Contractor will take affirmative action in regard to employment, upgrading, demotion, transfer, recruitment, recruitment advertising, layoff, termination, rates of pay or other forms of compensation, and selection for training, so as to ensure that applicants are employed and that employees during employment are treated without regard to their race, color, religion, sex, age forty (40) and over, disability, veteran status, or national origin;

c. Contractor will state in all solicitations or advertisements for employees placed by or on behalf of Contractor that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age forty (40) or over, disability, veteran status, or national origin;

d. Contractor will post notices in conspicuous places, available to employees and applicants for employment, setting forth the provisions of the nondiscrimination clauses required by this section; and

e. Contractor will send a notice to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding advising the labor union or workers' representative of Contractor's commitments under the nondiscrimination clauses.

Article 11. MISCELLANEOUS.

a. Terms used in this Agreement will have the meanings indicated in the General Conditions.

b. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

c. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect of all covenants, agreements, and obligations contained in the Contract Documents.

d. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part

thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

[Signature page follows.]

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. One counterpart each has been delivered to Owner, Contractor, Surety, and Engineer.

This Agreement will be effective on _____ (which is the Effective Date of the Agreement).

OWNER: **Northern Kentucky Water District**

Richard Harrison
Vice President of Engineering & Distribution

Address for giving notices

2835 Crescent Springs Road
PO Box 18640
Erlanger, Kentucky 41018

CONTRACTOR: _____

By: _____
Signature

Printed Name

Title

(Corporate Seal)

Address for giving notices

Joint Venture

CONTRACTOR:_____

By:_____ (Corporate Seal)

Address for giving notices

Uniform Guidance Contract Requirements

2 CFR 200 - ARPA Funded Projects

This Agreement, Contract, or Purchase Order ("contract") involves the use of funds from a Federal government grant. Due to the contract funding source, the following clauses from the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards ("Uniform Guidance"), Appendix II are incorporated into and form a part of the terms and conditions of the contract. The full text of the Uniform Guidance may be found at 2 CFR Part 200. Contractor agrees to comply with all applicable clauses and to flow down all applicable clauses to lower-tier subcontractors. Undefined terms herein shall have the same definitions as used in the contract, or if undefined there, in 2 CFR 200.

- 1. Equal Employment Opportunity. (2 CFR 200, Appendix II (C)).** *This Section applies if the contract is a "federally assisted construction contract."* Except as otherwise provided under 41 CFR Part 60, for all contracts that qualify as "federally assisted construction contracts" as defined in 41 CFR Part 60-1.3, contractor agrees to comply with the equal opportunity clause under 41 CFR 60-1.4(b), incorporated herein by reference, and E.O. 11246, "Equal Employment Opportunity," as amended by E.O. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR Part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States

- 2. Contract Work Hours and Safety Standards Act (2 CFR 200, Appendix II (E); 40 U.S.C. 3701-3708).** *This section applies if the contract is in excess of \$100,000 and involves the employment of mechanics or laborers.* contractor shall comply with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than 1½ times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do

not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

3. **Clean Air Act (42 U.S.C. 7401—7671q) and the Federal Water Pollution Control Act (33 U.S.C. 1251—1387), as amended (2 CFR 200, Appendix II (G)).** *This section applies if the contract is in excess of \$150,000.* The contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401—7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251—1387). Violations shall be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA). The contractor agrees to: i) comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. and the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.; ii) report each violation to the Owner and understands and agrees that the Owner will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office; and iii) include these requirements in each subcontract exceeding \$100,000.
4. **Debarment and Suspension (2 CFR 200, Appendix II (H); E.O.s 12549 and 12689).** *This section applies to all federally funded contracts.* The project related to the procurement notice and/or contract is a federally funded project. In order to respond to this procurement notice, all non-federal entities, contractors, sub-recipients and sub-grantees are required to register in the System for Award Management (SAM) database. SAM is the official free, government operated website. There is NO charge to register or maintain your entity registration record in SAM. All contractors must be registered in SAM prior to receiving an award of contract from the Owner. In SAM, your company/business/organization is referred to as an “Entity”. You must register your entity to do business with the U.S. Federal government by completing the registration process in SAM. Detailed instructions for how to register your company/business/organization can be found at <https://sam.gov/content/entity-registration>. Non-federal entities are subject to the non-procurement debarment and suspension regulations implementing Executive Orders 12549 and 12689, 2 CFR part 180. These regulations restrict awards, sub-awards, and contracts with certain parties that are debarred, suspended, or otherwise Contractor must comply with 2 CFR Part 180, Subpart C and must include a requirement to comply with this regulation in any lower tier covered transaction it enters into. Contractor shall have an ongoing duty during the term of this Contract to disclose to Owner on an ongoing basis any occurrence that would prevent contractor from making the certifications contained in this section. Such disclosure shall be made in writing to Owner within five (5) business days of when contractor discovers or reasonably believes there is a likelihood of such occurrence. This certification is a material representation of fact relied upon by Owner. If it is later determined that contractor did not comply with 2 CFR Part 180, Subpart C, in addition to remedies available to Owner, the Federal government may pursue available remedies, including but not limited to suspension and/or debarment.
5. **Byrd Anti-Lobbying Amendment (2 CFR 200, Appendix II (I); 31 U.S.C. 1352).** *This section applies if the contract is for \$100,000 or more.* Contractor and its subcontractors shall file the certification required by this statute and associated regulations. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to Owner.
6. **Procurement of recovered materials (2 CFR 200.323).** *This section applies where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000.* The contractor shall comply with the requirements of Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition.
7. **Domestic preferences for procurements (2 CFR 200.322).** *This section applies to all contracts covered by 2 CFR 200.* As appropriate and to the extent consistent with law, the contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this Section must be included in all subawards including all contracts and purchase orders for work or products under this contract. For purposes of this section: i) “Produced in the United States” means, for iron and steel products, that all manufacturing processes from the initial melting stage through the application of coatings, occurred in the United States; ii) “Manufactured products” means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.
8. **Contracting with Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms (2 CFR 200.321).** *This section applies to all contracts covered by 2 CFR 200.* The contractor shall take affirmative steps to include minority businesses, women's business enterprises, and labor surplus area firms when possible by: i) placing qualified small and minority businesses and women's business enterprises on solicitation lists; ii) assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources; iii) dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises; iv) establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; v) using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce; vi) and requiring subcontractors, if subcontracts are to be let, to take the affirmative steps listed in in this Section.

CONFLICTS AMONG CLAUSES APPLICABLE TO THE CONTRACT

In the event of any conflict among the requirements of clauses applicable to contract, the most stringent requirements of the clauses will apply.

Performance Bond

Any singular reference to Contractor Surety Owner or other party shall be considered plural where applicable

CONTRACTOR (Name and Address)

SURETY (Name and Address of Principal Place
of Business)

OWNER (Name and Address)

CONTRACT

Date

Amount

Description (Name and Location)

BOND

Date (Not earlier than Contract Date)

Amount

Modifications to this Bond Form

Surety and Contractor intending to be legally bound hereby subject to the terms printed on the reverse side hereof do each cause this Performance Bond to be duly executed on its behalf by its authorized officer agent or representative

CONTRACTOR AS PRINCIPAL

Company _____ (Corp Seal)

Signature _____
Name and Title

SURETY

Company _____ (Corp Seal)

Signature _____
Name and Title
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties if required)

CONTRACTOR AS PRINCIPAL

Company _____ (Corp Seal)

Signature _____
Name and Title

SURETY

Company _____ (Corp Seal)

Signature _____
Name and Title

EJCDC No 1910 28 A (1996 Edition)

Originally prepared through the joint efforts of the Surety Association of America Engineers Joint Contract Documents Committee the Associated General Contractors of America and the American Institute of Architects

1 The CONTRACTOR and the Surety jointly and severally bind themselves their heirs executors administrators successors and assigns to the Owner for the performance of the Contract which is incorporated herein by reference

2 If the CONTRACTOR performs the Contract, the Surety and the CONTRACTOR have no obligation under this Bond except to participate in conferences as provided in paragraph 3 1

3 If there is no OWNER Default, the Surety's obligation under this Bond shall arise after

3 1 The OWNER has notified the CONTRACTOR and the Surety at the addresses described in paragraph 10 below that the OWNER is considering declaring a CONTRACTOR Default and has requested and attempted to arrange a conference with the CONTRACTOR and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Contract If the OWNER the CONTRACTOR and the Surety agree the CONTRACTOR shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the OWNER's right if any subsequently to declare a CONTRACTOR Default and

3 2 The OWNER has declared a CONTRACTOR Default and formally terminated the CONTRACTOR's right to complete the Contract Such CONTRACTOR Default shall not be declared earlier than twenty days after the CONTRACTOR and the Surety have received notice as provided in paragraph 3 1 and

3 3 The OWNER has agreed to pay the Balance of the Contract Price to

3 3 1 The Surety in accordance with the terms of the Contract,

3 3 2 Another contractor selected pursuant to paragraph 4 3 to perform the Contract

4 When the OWNER has satisfied the conditions of paragraph 3 the Surety shall promptly and at the Surety's expense take one of the following actions

4 1 Arrange for the CONTRACTOR, with consent of the OWNER to perform and complete the Contract, or

4 2 Undertake to perform and complete the Contract itself through its agents or through independent contractors or

4 3 Obtain bids or negotiated proposals from qualified contractors acceptable to the OWNER for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the OWNER and the contractor selected with the OWNER's concurrence to be secured with performance and payment bonds executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the OWNER the amount of damages as described in paragraph 6 in excess of the Balance of the Contract Price incurred by the OWNER resulting from the CONTRACTOR Default or

4 4 Waive its right to perform and complete arrange for completion or obtain a new contractor and with reasonable promptness under the circumstances

4 4 1 After investigation, determine the amount for which it may be liable to the OWNER and as soon as practicable after the amount is determined tender payment therefor to the OWNER, or

4 4 2 Deny liability in whole or in part and notify the OWNER citing reasons therefor

5 If the Surety does not proceed as provided in paragraph 4 with reasonable promptness the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the OWNER to the Surety demanding that the Surety perform its obligations under this Bond and the OWNER shall be entitled to enforce any remedy available to the OWNER If the Surety proceeds as provided in paragraph 4 4 and the OWNER refuses the payment tendered or the Surety has denied

liability in whole or in part without further notice the OWNER shall be entitled to enforce any remedy available to the OWNER

6 After the OWNER has terminated the CONTRACTOR's right to complete the Contract, and if the Surety elects to act under paragraph 4 1 4 2 or 4 3 above then the responsibilities of the Surety to the OWNER shall not be greater than those of the CONTRACTOR under the Contract, and the responsibilities of the OWNER to the Surety shall not be greater than those of the OWNER under the Contract To a limit of the amount of this Bond but subject to commitment by the OWNER of the Balance of the Contract Price to mitigation of costs and damages on the Contract the Surety is obligated without duplication for

6 1 The responsibilities of the CONTRACTOR for correction of defective Work and completion of the Contract

6 2 Additional legal design professional and delay costs resulting from the CONTRACTOR's Default and resulting from the actions or failure to act of the Surety under paragraph 4 and

6 3 Liquidated damages or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non performance of the CONTRACTOR

7 The Surety shall not be liable to the OWNER or others for obligations of the CONTRACTOR that are unrelated to the Contract and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations No right of action shall accrue on this Bond to any person or entity other than the OWNER or its heirs executors administrators or successors

8 The Surety hereby waives notice of any change including changes of time to the Contract or to related subcontracts purchase orders and other obligations

9 Any proceeding legal or equitable under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after CONTRACTOR Default or within two years after the CONTRACTOR ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond whichever occurs first If the provisions of this paragraph are void or prohibited by law the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable

10 Notice to the Surety the OWNER or the CONTRACTOR shall be mailed or delivered to the address shown on the signature page

11 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was performed any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted here from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein The intent is that this Bond shall be construed as a statutory bond and not as a common law bond

12 Definitions

12 1 Balance of the Contract Price The total amount payable by the OWNER to the CONTRACTOR under the Contract after all proper adjustments have been made including allowance to the CONTRACTOR of any amounts received or to be received by the OWNER in settlement of insurance or other Claims for damages to which the CONTRACTOR is entitled reduced by all valid and proper payments made to or on behalf of the CONTRACTOR under the Contract

12 2 Contract The agreement between the OWNER and the CONTRACTOR identified on the signature page including all Contract Documents and changes thereto

12 3 CONTRACTOR Default Failure of the CONTRACTOR, which has neither been remedied nor waived to perform or otherwise to comply with the terms of the Contract

12 4 OWNER Default Failure of the OWNER, which has neither been remedied nor waived to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof

(FOR INFORMATION ONLY Name Address and Telephone)
AGENT or BROKER OWNER'S REPRESENTATIVE (Engineer or other party)

Payment Bond

Any singular reference to Contractor Surety Owner or other party shall be considered plural where applicable

CONTRACTOR (Name and Address)

SURETY (Name and Address of Principal Place
of Business)

OWNER (Name and Address)

CONTRACT

Date

Amount

Description (Name and Location)

BOND

Date (Not earlier than Contract Date)

Amount

Modifications to this Bond Form

Surety and Contractor intending to be legally bound hereby subject to the terms printed on the reverse side hereof do each cause this Payment Bond to be duly executed on its behalf by its authorized officer agent or representative

CONTRACTOR AS PRINCIPAL

Company (Corp Seal)

Signature _____
Name and Title

SURETY

Company (Corp Seal)

Signature _____
Name and Title
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties if required)

CONTRACTOR AS PRINCIPAL

Company (Corp Seal)

Signature _____
Name and Title

SURETY

Company (Corp Seal)

Signature _____
Name and Title

EJCDC No 1910 28 B (1996 Edition)

Originally prepared through the joint efforts of the Surety Association of America Engineers Joint Contract Documents Committee the Associated General Contractors of America the American Institute of Architects the American Subcontractors Association, and the Associated Specialty Contractors

1 The CONTRACTOR and the Surety jointly and severally bind themselves their heirs executors administrators successors and assigns to the OWNER to pay for labor materials and equipment furnished for use in the performance of the Contract, which is incorporated herein by reference

2 With respect to the OWNER this obligation shall be null and void if the CONTRACTOR

2 1 Promptly makes payment directly or indirectly for all sums due Claimants and

2 2 Defends indemnifies and holds harmless the OWNER from all claims demands liens or suits by any person or entity who furnished labor materials or equipment for use in the performance of the Contract provided the OWNER has promptly notified the CONTRACTOR and the Surety (at the addresses described in paragraph 12) of any claims demands liens or suits and tendered defense of such claims demands liens or suits to the CONTRACTOR and the Surety and provided there is no OWNER Default

3 With respect to Claimants this obligation shall be null and void if the CONTRACTOR promptly makes payment directly or indirectly for all sums due

4 The Surety shall have no obligation to Claimants under this Bond until

4 1 Claimants who are employed by or have a direct contract with the CONTRACTOR have given notice to the Surety (at the addresses described in paragraph 12) and sent a copy or notice thereof to the OWNER stating that a claim is being made under this Bond and with substantial accuracy the amount of the claim

4 2 Claimants who do not have a direct contract with the CONTRACTOR.

1 Have furnished written notice to the CONTRACTOR and sent a copy or notice thereof to the OWNER, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating with substantial accuracy the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed and

2 Have either received a rejection in whole or in part from the CONTRACTOR or not received within 30 days of furnishing the above notice any communication from the CONTRACTOR by which the CONTRACTOR had indicated the claim will be paid directly or indirectly and

3 Not having been paid within the above 30 days have sent a written notice to the Surety and sent a copy or notice thereof to the OWNER stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the CONTRACTOR

5 If a notice required by paragraph 4 is given by the OWNER to the CONTRACTOR or to the Surety that is sufficient compliance

6 When the Claimant has satisfied the conditions of paragraph 4 the Surety shall promptly and at the Surety's expense take the following actions

6 1 Send an answer to the Claimant with a copy to the OWNER within 45 days after receipt of the claim stating the amounts that are undisputed and the basis for challenging any amounts that are disputed

6 2 Pay or arrange for payment of any undisputed amounts

7 The Surety's total obligation shall not exceed the amount of this Bond and the amount of this Bond shall be credited for any payments made in good faith by the Surety

8 Amounts owed by the OWNER to the CONTRACTOR under the Contract shall be used for the performance of the Contract and to satisfy claims if any under any Performance Bond By the CONTRACTOR furnishing and the OWNER accepting this Bond they agree that all funds earned by the CONTRACTOR in the performance of the Contract are dedicated to satisfy obligations of the CONTRACTOR and the Surety under this Bond subject to the OWNER's priority to use the funds for the completion of the Work

9 The Surety shall not be liable to the OWNER Claimants or others for obligations of the CONTRACTOR that are unrelated to the Contract The OWNER shall not be liable for payment of any costs or expenses of any Claimant under this Bond and shall have under this Bond no obligations to make payments to give notices on behalf of or otherwise have obligations to Claimants under this Bond

10 The Surety hereby waives notice of any change including changes of time to the Contract or to related Subcontracts purchase orders and other obligations

11 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by paragraph 4 1 or paragraph 4 2 3 or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs If the provisions of this paragraph are void or prohibited by law the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable

12 Notice to the Surety the OWNER or the CONTRACTOR shall be mailed or delivered to the addresses shown on the signature page Actual receipt of notice by Surety the OWNER or the CONTRACTOR however accomplished shall be sufficient compliance as of the date received at the address shown on the signature page

13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was to be performed any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond

14 Upon request of any person or entity appearing to be a potential beneficiary of this Bond the CONTRACTOR shall promptly furnish a copy of this Bond or shall permit a copy to be made

15 DEFINITIONS

15 1 Claimant An individual or entity having a direct contract with the CONTRACTOR or with a Subcontractor of the CONTRACTOR to furnish labor materials or equipment for use in the performance of the Contract The intent of this Bond shall be to include without limitation in the terms labor materials or equipment that part of water gas power light, heat, oil gasoline telephone service or rental equipment used in the Contract architectural and engineering services required for performance of the Work of the CONTRACTOR and the CONTRACTOR's Subcontractors and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor materials or equipment were furnished

15 2 Contract The agreement between the OWNER and the CONTRACTOR identified on the signature page including all Contract Documents and changes thereto

15 3 OWNER Default Failure of the OWNER which has neither been remedied nor waived to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof

(FOR INFORMATION ONLY--Name Address and Telephone)

AGENCY or BROKER

OWNER'S REPRESENTATIVE (Engineer or other party)

CERTIFICATE OF INSURANCE						Issue Date:	
PRODUCER:		THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.					
		COMPANIES AFFORDING COVERAGE					
Code	Sub-Code	COMPANY LETTER A					
INSURED:		COMPANY LETTER B					
		COMPANY LETTER C					
		COMPANY LETTER D					
		COMPANY LETTER E					
COVERAGES							
THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES.							
CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE	POLICY EXPIRATION DATE	ALL LIMITS IN THOUSANDS		
	GENERAL LIABILITY	(Completed Operations & Products Liability remains in force for 2 years after final payment)			GENERAL AGGREGATE	\$1,000,	
<input checked="" type="checkbox"/>	COMMERCIAL GENERAL LIABILITY				PRODUCTS-COMP/OPS AGGREGATE	\$1,000,	
<input checked="" type="checkbox"/>	OCCURRENCE				PERSONAL & ADVERTISING INJURY	\$1,000,	
<input checked="" type="checkbox"/>	BLANKET CONTRACTUAL				EACH OCCURRENCE	\$1,000,	
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT EACH OCCURRENCE Bodily Injury & Property Damage	\$1,000,	
<input checked="" type="checkbox"/>	ANY AUTO						
<input checked="" type="checkbox"/>	HIRED AUTOS						
<input checked="" type="checkbox"/>	NON-OWNED AUTOS						
	EXCESS LIABILITY	(Follows Form of the Primary)			EACH OCCURRENCE	\$4,000,	
<input checked="" type="checkbox"/>	UMBRELLA FORM				AGGREGATE	\$4,000,	
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY	(Includes US Longshoremen and Harbor Workers Act and Maritime Coverage Where Applicable and All States Endorsement)			STATUTORY		
					EACH ACCIDENT	\$1,000,	
					DISEASE-POLICY LIMIT	\$1,000,	
					DISEASE-EACH EMPLOYEE	\$1,000,	
	OTHER				EACH OCCURRENCE		
<input type="checkbox"/>					AGGREGATE		
DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS:							
<ol style="list-style-type: none"> Certificate Holder(s) & their Officers, Directors, Partners, Employees, & Agents Named as Additional Insured (all policies except WC). The coverage afforded the Additional Insured under these policies shall be primary insurance. If the Additional Insured has other insurance which is applicable to the loss, such other insurance shall be on an excess or contingent basis. (Copy of Additional Insured Endorsement attached.) Blanket Coverage for XCU Hazards (General Liability & Excess Liability). Waiver of Subrogation Against Certificate Holder(s), Their Officers, Directors, Partners, Employees, & Agents (all policies). Contractual Coverage covers liability assumed in the Indemnification Clause of the Contract between Certificate Holder and Insured (General Liability & Excess Liability). General and Products/Completed Operations aggregates apply for each Certificate Holder contract(s) or amendments (General Liability & Excess Liability). Contractual Liability Limitation Endorsement CG2139 or its equivalent is not included in either General or Excess Liability policies. Severability of Interest or Cross Liability clause or endorsement included (General Liability & Excess Liability). 							
CERTIFICATE HOLDERS				CANCELLATION			
1.	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELED, TERMINATED, OR MATERIALLY CHANGED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL MAIL 30 DAYS' WRITTEN NOTICE TO THE CERTIFICATE HOLDERS NAMED TO THE LEFT. ANY IMPAIRMENT OR EXHAUSTION OF AGGREGATES WILL BE THE SUBJECT OF IMMEDIATE NOTICE TO THE CERTIFICATE HOLDERS.						
2.	AUTHORIZED REPRESENTATIVE						

CERTIFICATE OF PROPERTY INSURANCE		ISSUE DATE _____ (mm/dd/yy)
THIS IS EVIDENCE THAT INSURANCE AS IDENTIFIED BELOW HAS BEEN ISSUED IS IN FORCE AND CONVEYS ALL THE RIGHTS AND PRIVILEGES AFFORDED UNDER THE POLICY		
PRODUCER Code Sub-Code	COMPANY	
INSURED	POLICY NUMBER	
	EFFECTIVE DATE (mm/dd/yy)	EXPIRATION DATE (mm/dd/yy)
PROPERTY INFORMATION		
LOCATION/DESCRIPTION		
COVERAGE INFORMATION		
COVERAGES/PERILS/FORMS	AMOUNT OF INSURANCE	DEDUCTIBLE
BUILDERS RISK/INSTALLATION FLOATER All Risk of Physical Damage or Loss to Equipment and Materials at or incidental to the Jobsite on Completed Value Form	Insurable value of completed work. _____	
REMARKS (including Special Conditions)		
1 Certificate Holder and others identified in the property insurance paragraph of the Contract Documents are Named Insureds 2 Waiver of Subrogation against Named Insureds 3 Any similar insurance carried by Named Insureds is excess of coverage described hereon 4 Losses are payable to Owner as fiduciary for the Named Insureds		
CANCELLATION		
THIS POLICY IS SUBJECT TO THE PREMIUMS FORMS AND RULES IN EFFECT FOR EACH POLICY PERIOD SHOULD THE POLICY BE TERMINATED OR MATERIALLY CHANGED THE COMPANY WILL GIVE THE CERTIFICATE HOLDERS IDENTIFIED BELOW 30 DAYS' WRITTEN NOTICE, AND WILL SEND NOTIFICATION OF ANY CHANGES TO THE POLICY THAT WOULD AFFECT THAT INTEREST IN ACCORDANCE WITH THE POLICY PROVISIONS OR AS REQUIRED BY LAW		
CERTIFICATE HOLDERS		
Name and Address 1 2	Nature of Interest <input checked="" type="checkbox"/> Additional Named Insured SIGNATURE OF AUTHORIZED AGENT OF THE COMPANY	

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by



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ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A Practice Division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of

the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

- A. Standards, Specifications, Codes, Laws, and Regulations
 1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 1. A Field Order;
 2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
 2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the

Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

- 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
- 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

- 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
- 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
- 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

- 1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
- 2. is of such a nature as to require a change in the Contract Documents; or
- 3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

- B. *Engineer's Review*: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments*:

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to

permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 - 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
 - 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
 - 1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners,

employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
6. include completed operations coverage:
 - a. Such insurance shall remain in effect for two years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of

them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;

2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 5. allow for partial utilization of the Work by Owner;
 6. include testing and startup; and
 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
 - 3) it has a proven record of performance and availability of responsive service.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items:*

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
 - 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
 - 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or

entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its

use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner

and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts

any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:*

- a. Submit number of Samples specified in the Specifications.

- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures:*

- 1. Before submitting each Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
- 2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
- 3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

- 1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
- 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the

Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
4. use or occupancy of the Work or any part thereof by Owner;
5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
6. any inspection, test, or approval by others; or
7. any correction of defective Work by Owner.

6.20 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
 - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe

access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
 - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 - 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER’S RESPONSIBILITIES

8.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

- A. Owner’s duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner’s identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

- A. Owner’s responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. Owner’s responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner’s Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor’s means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws

and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 *Compliance with Safety Program*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations

on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of,

and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
 - 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 - 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
 - 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of

executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
 - 1. deny the Claim in whole or in part;
 - 2. approve the Claim; or
 - 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
 - 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
 - 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
 - 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.
- C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.
- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:*
1. Contractor agrees that:
 - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in

the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 2. there is no corresponding adjustment with respect to any other item of Work; and
 3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. *Contractor's Fee*: The Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers,

architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. repair such defective land or areas; or
 - 2. correct such defective Work; or
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 Schedule of Values

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 Progress Payments

A. Applications for Payments:

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications:

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's

review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
- d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due:

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment:

1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 Contractor's Warranty of Title

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and

- d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 Final Completion Delayed

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

- #### A.
- At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
3. Contractor's repeated disregard of the authority of Engineer; or
4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other

dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or

2. agrees with the other party to submit the Claim to another dispute resolution process; or
3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTARY CONDITIONS

SCOPE. These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (C-700, 2007 Edition) and other provisions of the Contract Documents as indicated herein. All provisions which are not so amended or supplemented remain in full force and effect.

SC-1. DEFINITIONS AND TERMINOLOGY.

SC-1.01. DEFINED TERMS. The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract (C-700, 2007 Edition) have the meanings assigned to them in the General Conditions.

Amend the terms as follows:

3. Application for Payment: Strike out the word "Engineer" and insert the word "Owner" in its place.
9. Change Order: Strike out the words "recommended by Engineer".
12. Contract Documents: In the first sentence, strike out the word "Engineer's" and insert the word "Owner's" in its place.
14. Contract Times: Strike out the words "as evidenced by Engineer's written recommendation of final payment".
15. Contractor: Delete the term "Contractor" and substitute therefore the terms "Contractor or Prime Contractor."
17. Drawings: Add the following sentence to the definition: "Drawings may also be described as Plans."
20. Field Order: Strike out the word "Engineer" and insert the word "Owner" in its place.
22. Hazardous Environmental Conditions: Delete the words " or Radioactive Material" and substitute therefore the words "Radioactive Material or other pollutants or contaminants".
44. Substantial Completion: Strike out the word "Engineer" and insert the word "Owner" in its place. Add the following to the first sentence: "and a Certificate of Substantial Completion has been completed."
51. Work Change Directive: In the first sentence strike out the words "and recommended by Engineer".

Additional terms used in these Supplementary Conditions have the meanings indicated herein, which are applicable to both the singular and plural thereof.

Add the following new definitions to paragraph 1.01:

- "52. Final Completion – The time when all work is complete, including all punch list items, and all documents required for occupancy of the facility are completed and submitted to the OWNER. These documents include, but are not limited to, Certificate of Occupancy, Letters of Approval from various regulatory agencies, inspection certificates, and all other items as required in paragraph 14.07."
- "53. General Contractor – The person, firm, or corporation with whom OWNER has entered into an Agreement for a complete project, general trades, or complete project less a part of the project."
- "54. Without exception – The term "without exception", when used in the Contract Documents following the name of a Supplier or a proprietary item of equipment, product, or material, shall mean that the sources of the product are limited to the listed Suppliers or products and that no like, equivalent, or "or-equal" item and no substitution will be considered."
- "55. Written Notice – Notice to any party which is in writing and which shall be considered delivered and the service thereof completed once posted by certified or registered mail to the party to whom the notice is sent at its last given address or delivered in person to said party or its authorized representative on the work."

SC-102. TERMINOLOGY. Add the following paragraphs G, H, and I.

"G. Imperative Mood. These specifications are written to the BIDDER before the award of the Contract and to the CONTRACTOR after award of the Contract. The sentences that direct the CONTRACTOR to perform work are mostly written as commands. For example, a requirement to provide cold-weather protection would be expressed as, 'Provide cold-weather protection for concrete,' rather than 'The Contractor shall provide cold-weather protection for concrete.' In the imperative mood, the subject "the Bidder" or "the Contractor" is understood.

SC-2. PRELIMINARY MATTERS.

SC-2.02. Copies of Documents. Delete the second sentence of paragraph 2.02.A and insert the following new sentence in its place:

"Two (2) sets of contract drawings and specifications will be furnished the Contractor without charge. Additional sets will be furnished upon request at the cost of reproduction. The Contractor shall keep one (1) set of approved plans and specifications on the site of the work. This set shall be kept current by addition of all approved changes, addenda and amendments thereto. One set of as-built plans shall be returned to the Owner after the project is complete."

The plans and specifications are intended to be complementary; but should any discrepancy appear or any misunderstanding arise as to the import of anything

contained in either, the decision of the District shall be final and binding on the Contractor. The District may make any corrections of errors or omissions in the drawings and specifications when such corrections are necessary for the proper fulfillment of their intention as construed by the District.

All work or materials shown on the plans and not mentioned in the specifications or any work specified and not shown on the plans, shall be furnished, performed and done by the Contractor as if the same were both mentioned in the specifications and shown on the plans.

Should the Contractor in preparing its bid find anything necessary for the construction of the project that is not mentioned in the specifications or shown on the plans, or any discrepancy, it shall notify the District so that such items may be included. Should the Contractor fail to notify the District of such items, it will be assumed that its bid included everything necessary for the complete construction in the spirit and intent of the designs shown.

In case of discrepancy, figure dimensions shall govern over scale dimensions, large-scale details shall govern over small-scale drawings, plans shall govern over specifications, detailed technical specifications shall govern over general specifications, and the more restrictive specifications shall prevail."

SC-2.03. Commencement of Contract Times; Notice to Proceed. Delete the paragraph and insert in its place:

"A. The Contract Times will commence to run on the day indicated in the Notice to Proceed. The date for the Contract Times may be extended by mutual agreement between the OWNER and the CONTRACTOR."

SC-2.05. Before Starting Construction. Amend paragraphs 2.05.A and 2.05.B by striking out the word "Engineer" in all locations where it appears in the paragraphs and inserting the word "Owner" in its place.

SC-2.06. Preconstruction Conference. Delete paragraph 2.06.A in its entirety and insert the following new paragraph in its place:

If requested by Owner, within 20 days after the Contract Times start to run, but before any work at the Site is started, a conference attended by Contractor, Owner, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.05.B, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

SC-2.07. Initial Acceptance of Schedules. Amend paragraph 2.07.A, including paragraphs 2.07.A.1, 2.07.A.2, and 2.07.A.3, by striking out the word "Engineer" in all locations where it appears in the paragraph and inserting the word "Owner" in its place.

SC-3. CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE.

SC-3.01. Intent. Amend paragraph 3.01.C by striking out the word "Engineer" and inserting the word "Owner" in its place.

SC-3.03. Reporting and Resolving Discrepancies. Amend paragraph 3.03.A by striking out the word "Engineer" and inserting the word "Owner" in its place.

SC-3.04. Amending and Supplementing Contract Documents. Amend paragraph 3.04.B by striking out the word "Engineer" and inserting the word "Owner" in its place.

SC-4. AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS.

SC-4.02. Subsurface and Physical Conditions. Delete Paragraph 4.02.A in its entirety and insert the following new paragraph in its place:

- A. *Reports and Drawings*: No reports of explorations and tests of subsurface conditions at or contiguous to the Site have been prepared, and no drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site are available.

SC-4.03. Differing Subsurface or Physical Conditions.

Replace paragraph 4.03.A with the following:

"A. Notice: If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

"1. Is of such nature as to require a change in the Contract Documents; or

"2. Differs materially from that shown or indicated in the Contract Documents; or

"3. Is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent on work of the character provided for in the Contract Documents;

"then CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any work in connection therewith (except in an emergency as required by paragraph 6.16.A), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such condition or perform any work in connection therewith (except as aforesaid) until receipt of written order to do so."

Delete paragraph 4.03.B in its entirety and insert the following new paragraph in its place:

- B. *Owner's Review*. After receipt of written notice as required by paragraph 4.03.A, Owner will promptly review the pertinent condition, determine the necessity if obtaining additional explorations or tests with respect thereto, and advise Contractor in writing of Owner's findings and conclusions.

SC-4.04. Underground Facilities.

Add the following immediately after paragraph 4.04.A.2.

"4.04.A.3 Location of Subsurface Utilities.

- "a. The location of subsurface utilities is shown on the plans from information furnished by the utility owners.
- "b. The CONTRACTOR shall, no later than 2 working days, excluding Saturdays, Sundays, and legal holidays, prior to construction in the area of the subsurface utility, notify the subsurface utility Owner in writing, by telephone, or in person. The marking or locating shall be coordinated to stay approximately 2 days ahead of the planned construction.
- "c. The CONTRACTOR shall alert immediately the occupants of nearby premises as to any emergency that it may create or discover at or near such premises.
- "d. The CONTRACTOR shall have full responsibility for coordination of the work with owners of such underground facilities during construction, for the safety and protection thereof as provided in paragraph 6.13 and repairing any damage thereto resulting from the work, the cost of all of which will be considered as having been included in the Contract Price.

"4.04.A.4 Where existing utilities and structures are indicated as being in the line of the proposed improvement, the CONTRACTOR shall expose them sufficiently in advance of the construction operations to permit adjustments in line or grade, if required, to eliminate interferences.

"4.04.A.5 Existing pipes or conduits crossing a trench, or otherwise exposed, shall be adequately braced and supported to prevent movement during construction.

"4.04.A.6 Broken Utility Services.

- "a. Utility services broken or damaged shall be repaired at once to avoid inconvenience to customers and utility owners.
- "b. Temporary arrangements, as approved by the ENGINEER, may be used until any damaged items can be permanently repaired.
- "c. All items damaged or destroyed by construction and subsequently repaired must be properly maintained by the CONTRACTOR.
- "d. CONTRACTOR must work 24 hours a day until service is restored to a damaged utility.

"4.04.A.7 Existing Utility Relocation.

"a. Where it is necessary to relocate an existing utility or structure, the work shall be done in such manner as is necessary to restore it to a condition equal to that of the original utility or structure.

"b. No such relocation shall be done until approval is received from the authority responsible for the utility or structure being changed."

Amend the first sentence of paragraph 4.04.B.1 by striking out the words "and Engineer".

Amend the second sentence of paragraph 4.04.B.2 by striking out the word "Engineer" and inserting the word "Owner" in its place.

Amend the first sentence of paragraph 4.04.B.2 by striking out the word "Engineer" and inserting the word "Owner" in its place.

Add the following new paragraph immediately after paragraph 4.04.B:

Generally, service connections are not indicated on the Drawings. Contractor shall be responsible for discovery of existing underground installations, in advance of excavating or trenching, by contacting all local utilities and by prospecting.

SC-4.06 Hazardous Environmental Conditions at Site.

Delete paragraph 4.06.A. in its entirety and substitute the following paragraph therefore:

A. The following reports and drawings related to Hazardous Environmental Conditions identified at the Site are known to Owner: (None).

Amend paragraph 4.06.B by adding the words "that is created by, or" immediately after the words "a Hazardous Environmental Condition" in the fourth line.

Amend paragraph 4.06.G by deleting all words following the words "Hazardous Environmental Condition" in the seventh line and substituting therefore the following words: "was created by Owner or by anyone for whom Owner is responsible, other than Contractor and all persons, subcontractors and entities for which Contractor is responsible."

SC-5. BONDS AND INSURANCE.

SC-5.02. Licensed Sureties and Insurers. Add the following new sentence at the end of paragraph 5.02.A:

The surety company shall be rated "A" by AM BEST.

SC-5.03. Certificates of Insurance. Add the following new sentence at the end of paragraph 5.03.A:

Contractor shall deliver to Owner properly completed certificates of insurance prior to the start of any Work at the Site, on the forms included in the Contract Documents.

SC-5.04. Contractor's Insurance.

Add the following new paragraphs immediately after paragraph 5.04.A.6:

7. Claims arising out of pollution and excluded from the Contractor's general liability and comprehensive automobile liability policies. This insurance shall be coordinated with the Contractor's general liability policy and shall provide bodily injury and property damage coverage similar to the Contractor's general liability policy. Coverage shall include contractual liability.

Add the following new paragraphs immediately after paragraph 5.04.B.6:

7. contain a cross liability or severability of interest clause or endorsement. Insurance covering the specified additional insureds shall be primary insurance, and all other insurance carried by the additional insureds shall be excess insurance;
8. with respect to workers' compensation and employers' liability, comprehensive automobile liability, commercial general liability, and umbrella liability insurance, and all other liability insurance specified herein to be provided by Contractor, Contractor shall require its insurance carriers to waive all rights of subrogation against Owner, Engineer, and their respective officers, directors, partners, employees, and agents.

Add the following new paragraphs immediately after paragraph 5.04.B:

- C. The insurance required by paragraph 5.04 shall include coverage as necessary for the benefits provided under the United States Longshoremen's and Harbor Workers' Act and the Jones Act. This policy shall include an "all states" endorsement.
- D. The limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts but shall provide coverage in greater amounts where required by Laws and Regulations. This coverage may be primary or a combination of primary and umbrella excess liability.
 1. Workers' Compensation, and related coverage under paragraphs 5.04.A.1 and 5.04.A.2 of the General Conditions:
 - a. State Statutory
 - b. Applicable Federal (e.g., Longshoreman's) Statutory
 - b. Employer's Liability \$1,000,000 each occurrence
 2. Commercial General Liability under paragraphs 5.04.A.3 through 5.04.A.6 of the General Conditions shall be occurrence type, written in comprehensive form, and shall protect Contractor, Owner, and Engineer as additional insureds, against claims arising from injuries, sickness, disease, or death of

any person or damage to property arising out of performance of the Work. The policy shall also include a per project aggregate limit endorsement, personal injury liability coverage, contractual liability coverage for blasting, explosion, collapse of buildings, and damage to underground property.

- a. General Aggregate \$1,000,000
- b. Products – Completed Operations Aggregate \$1,000,000
- c. Personal and Advertising Injury \$1,000,000
- d. Each Occurrence (Bodily Injury and Property Damage) \$1,000,000
- e. Property Damage liability insurance will provide Explosion, Collapse and Underground coverage's where applicable.

- 3. Automobile Liability under paragraph 5.04.A.6 of the General Conditions shall be occurrence type, written in comprehensive form, and shall protect Contractor, Owner, and Engineer as additional insureds, against all claims for injuries to members of the public and damage to property of others arising from the use of motor vehicles, either on or off the project site whether they are owned, nonowned, or hired. The liability limit shall be not less than:

- a. Bodily Injury
 - Each Person \$1,000,000
 - Each Accident \$1,000,000
- b. Property Damage
 - Each Accident \$1,000,000
- c. Combined Single Limit \$1,000,000

- 4. Umbrella Liability Insurance shall protect Contractor, Owner, and Engineer as additional insureds, against claims in excess of the limits provided under workers' compensation and employers' liability, comprehensive automobile liability, and commercial general liability policies. The umbrella policy shall follow the forms of the primary insurance, including the application of the primary limits. The liability limits shall be not less than:

- Bodily injury and Property damage \$4,000,000 combined single limit for each occurrence
- \$4,000,000 general aggregate

SC-5.05. Owner's Liability Insurance. Delete paragraph 5.05 in its entirety and insert the following new paragraph in its place:

5.05. *Owner's Liability Insurance*. This insurance shall be obtained by Contractor and issued in the name of Owner, and shall protect and defend Owner against claims arising as a result of the operations of Contractor or Contractor's Subcontractors. The liability limits shall be not less than:

- | | | |
|----|-------------------|-------------|
| a. | Bodily Injury | |
| | Each Occurrence | \$1,000,000 |
| | General Aggregate | \$1,000,000 |
| b. | Property Damage | |
| | Each Occurrence | \$1,000,000 |
| | General Aggregate | \$1,000,000 |

SC-5.06. Property Insurance. Delete paragraph 5.06 in its entirety and insert the following new paragraphs in their place:

5.06. *Property Insurance*

- A. Contractor shall purchase and maintain property insurance coverage upon the Work at the Site in the amount of the full replacement cost thereof. This insurance shall:
1. include the interests of Owner, Contractor, Subcontractors, Engineer, Engineer's Consultants, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an additional insured;
 2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, flood, damage caused by frost and freezing, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;
 3. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment accepted by Owner;
 4. include expenses incurred in the repair or replacement of any insured property (including, but not limited to, fees and charges of engineers and architects);
 5. allow for partial utilization of the Work by Owner;
 6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer, with 30 days' written notice to each other additional insured to whom a certificate of insurance has been issued.

B. Contractor shall be responsible for any deductible or self-insured retention.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with paragraph 5.06 shall contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.07.

D. If Owner requests in writing that other special insurance be included in the property insurance policies provided under paragraph 5.06, Contractor shall, if possible, include such insurance, and the cost thereof will be charged to Owner by appropriate Change Order or Written Amendment. Prior to commencement of the Work at the Site, Contractor shall in writing advise Owner whether or not Contractor has procured such other special insurance.

SC-6. CONTRACTOR'S RESPONSIBILITIES.

SC-6.02. Labor; Working Hours. Add the following new paragraphs immediately after paragraph 6.02.B:

C. No Work shall be done between 6:00 p.m. and 7:00 a.m. without permission of Owner. However, emergency work may be done without prior permission.

D. Night Work may be undertaken as a regular procedure with the permission of Owner; such permission, however, may be revoked at any time by Owner if Contractor fails to maintain adequate equipment and supervision for the proper prosecution and control of the Work at night.

SC-6.03. Services, Materials, and Equipment. Amend the second sentence of paragraph 6.03.B by striking out the word "Engineer" and inserting the word "Owner" in its place.

SC-6.04. Progress Schedule. Amend the first sentence of paragraph 6.04.A.1 by striking out the word "Engineer" and inserting the word "Owner" in its place.

SC-6.05. Substitutes and "Or-Equals". Amend paragraph 6.05, including paragraphs 6.05.A, 6.05.A.1, 6.05.A.1.a, 6.05.A.1.b, 6.05.A.2, 6.05.A.2.a, 6.05.A.2.b, 6.05.A.2.c, 6.05.A.2.d, 6.05.B, 6.05.C, 6.05.D, and 6.05.E by striking out the words "Engineer" and "Engineer's" in all locations where they appear in the paragraph and inserting the words "Owner" and "Owner's", respectively, in their place.

Add the following new paragraph after paragraph 6.05.A.2.d:

e. "If a proposed substitute item is accepted, all incidental costs associated with the use of the substitute including, but not limited to, redesign, claims of other Contractors, changes to electrical supply equipment, additional equipment or material required for the installation, etc., shall be at the expense of the Contractor proposing the substitute unless otherwise agreed to by the Owner."

SC-6.08. Permits. Add the following new paragraph immediately after paragraph 6.08.A:

B. Owner will obtain and pay for the following permits: Road & Highway Encroachment Permits, Kentucky Division of Water, and Stream Crossing Permits (including a Section 404 permit from the Corps of Engineers if applicable).

SC-6.09. Laws and Regulations. Add the following new paragraph immediately after paragraph 6.09.C:

D. Employment requirements shall be as specified herein and in the attachments at the end of the Supplementary Conditions.

SC-6.10. Taxes. Add the following new paragraph immediately after Paragraph 6.10.A of the General Conditions:

B. Portions of this project may be exempt from taxes. It is the Contractor's responsibility to determine any applicable exemptions.

SC-6.12. Record Documents. Amend the second sentence of paragraph 6.12.A by striking out the word "Engineer" and inserting the word "Owner" in its place.

Amend the third sentence of paragraph 6.12.A by striking out the words "Engineer for".

SC-6.16. Emergencies. Amend paragraph 6.16 by striking out the word "Engineer" in all locations where it appears in the paragraph and inserting the word "Owner" in its place.

Add the following new paragraph immediately after paragraph 6.16.A:

B. The Contractor understands and agrees that during the performance of the Contract, it shall maintain a presence within such proximity of the Work Site which will allow it to respond to an emergency at the Work Site within one hour of receiving notice of an emergency, including emergencies occurring during non-working hours. The Contractor shall provide a list of emergency phone numbers for such purposes. If the Contractor does not have such a presence, it may satisfy this requirement by sub-contracting with a sub-contractor that does have such a presence, provided that any such sub-contractor must be approved by the Owner, in its sole discretion, prior to the project pre-construction meeting.

SC-6.17. Shop Drawings and Samples. Amend paragraph 6.17, including paragraphs 6.17.A, 6.17.B, 6.17.C, 6.17.D, 6.17.D.1, 6.17.D.1.a, 6.17.D.1.b, 6.17.D.1.c, 6.17.D.1.d, 6.17.D.2, 6.17.D.3, 6.17.E.1, 6.17.E.2, 6.17.E.3, and 6.17.F.1 by striking out the words "Engineer" and "Engineer's" in all locations where they appear in the paragraph and inserting the words "Owner" and "Owner's", respectively, in their place.

SC-6.19. Contractor's General Warranty and Guarantee. Amend paragraph 6.19.C.1 by adding the words "or Owner" at the end of the paragraph.

Amend paragraph 6.19.C.2 by striking out the words "recommendation by Engineer or".

Amend paragraph 6.19.C.3 by striking out the words "by Engineer".

Amend paragraph 6.19.C.6 by striking out the word "Engineer" and inserting the word "Owner" in its place.

Delete paragraph 6.19.C.7 and substitute the following new paragraph therefore:

7. any correction of defective Work by Owner; or

Add the following new paragraph immediately after paragraph 6.19.C.7:

8. any expiration of a correction period.

SC-7. OTHER WORK.

SC-7.01. Related Work at Site. Amend paragraphs 7.01.B and 7.01.C by striking out the word "Engineer" in all locations where it appears in the paragraphs and inserting the word "Owner" in its place.

SC-8. OWNER'S RESPONSIBILITIES.

SC-8.01. Communications to Contractor. Amend paragraph A by striking out "through Engineer".

SC-8.02. Replacement of Engineer. Delete paragraph 8.02 in its entirety.

SC-9. ENGINEER'S STATUS DURING CONSTRUCTION.

SC-9.01. Owner's Representative. Delete paragraph 9.01 in its entirety.

SC-9.02. Visits to Site. Amend paragraphs 9.02.A and 9.02.B by striking out the words "Engineer" and "Engineer's" in all locations where they appear in the paragraph and inserting the words "Owner" and "Owners", respectively, in their place. Add following new paragraph:

B. Engineer may make visits to the Site as Owner deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, at the request and benefit of Owner, may determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will advise Owner of the progress of the Work and will endeavor to guard Owner against defective Work.

SC-9.04. Clarifications and Interpretations. Amend paragraph 9.04 by striking out the word “Engineer” in all locations where it appears in the paragraph and inserting the word “Owner” in its place.

SC-9.05. Authorizing Variations in Work. Amend paragraph 9.05 by striking out the word “Engineer” in all locations where it appears in the paragraph and inserting the word “Owner” in its place.

SC-9.06. Rejecting Defective Work. Amend paragraph 9.06 by striking out the word “Engineer” in all locations where it appears in the paragraph and inserting the word “Owner” in its place.

SC-9.07. Shop Drawings, Change Orders and Payments. Delete paragraph 9.07 in its entirety.

SC-9.08. Determinations for Unit Price Work. Delete paragraph 9.08 in its entirety.

SC-9.09. Decisions on Requirements of Contract Documents and Acceptability of Work. Delete paragraph 9.09 in its entirety.

SC-9.10. Limitations on Engineer’s Authority and Responsibilities. Delete paragraph 9.10.D in its entirety.

SC-10. CHANGES IN THE WORK.

SC-10.03. Execution of Change Orders. Amend paragraph 10.03.A by striking out the words “recommended by Engineer”.

Amend paragraph 10.03.A.3 by striking out the word “Engineer” and inserting the word “Owner” in its place.

SC-10.05. Claims and Disputes. Amend paragraph 10.05 by deleting paragraphs 10.05.A, 10.05.B, 10.05.B.1, 10.05.B.2, and 10.05.C in their entirety and inserting the following new paragraphs in their place:

A. *Notice*. Written notice stating the general nature of each Claim, dispute, or other matter shall be delivered by Contractor to Owner no later than 30 days after the start of the event giving rise thereto. Notice of the amount of extent of the Claim, dispute, or other matter with supporting data shall be delivered to Owner within 60 days after the start of such event, unless the Owner allows, in writing, additional time for Contractor to submit additional or more accurate data in support of such Claim, dispute, or other matter. A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of paragraph 12.02.B. Each Claim shall be accompanied by Contractor’s written statement that the adjustment claimed is the entire adjustment to which Contractor believes it is entitled as a result of said event.

B. *Owner’s Decisions*. Owner will render a formal decision in writing within 30 days after receipt of the last submittal of Contractor.

C. If Owner does not render a formal decision in writing within the time stated in paragraph 10.05.B, a decision denying the Claim in its entirety shall be deemed to have been issued 31 days after receipt of the last submittal of Contractor, unless Owner notifies Contractor in writing that a formal decision is pending and will be rendered within a specified number of days or by a specified date.

SC-11. COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK.

SC-11.01. Cost of the Work. Amend the second sentence of paragraph 11.01.A.3 by striking out the words “with the advice of Engineer”.

Amend paragraph 11.01.D by striking out the word “Engineer” and inserting the word “Owner” in its place.

SC-11.02. Cash Allowances. Amend paragraph 11.02.A by striking out the words “and Engineer”.

Amend paragraph 11.02.B by striking out the words “as recommended by Engineer”.

SC-11.9. Unit Price Work. Add the following new paragraph immediately after paragraph 11.9.3.3

11.9.4. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment by Change Order if the variation in the actual quantity of an item of Unit Price Work performed by Contractor differs by more than 25 percent from the estimated quantity of that item indicated in the Bid.

SC-12. CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES.

SC-12.01. Change of Contract Price. Delete paragraph 12.01.A in its entirety and insert the following new paragraph in its place:

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by Contractor to Owner in accordance with the provisions of paragraph 10.05.

SC-12.02. Change of Contract Times. Delete paragraph 12.02.A in its entirety and insert the following new paragraph in its place:

A. The Contract Times (or Milestones) may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times (or Milestones) shall be based on written notice submitted by Contractor to owner in accordance with the provisions of paragraph 10.05.

SC-12.03. Delays. Insert the following new sentence following the first sentence of paragraph 12.03.A:

This extension shall be Contractor’s sole and exclusive remedy for such delay.

Insert the following new paragraph 12.03.F immediately after paragraph 12.03.E:

F. In no event shall Owner be liable to Contractor, any Subcontractor, any Supplier, or any other person or organization, or to any surety for or employee or agent of any of them, for damages (including acceleration costs) arising out of or resulting from any delay.

SC-13. TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK.

SC-13.02. Access to Work. Add the following new paragraph immediately after paragraph 13.02.A:

B. Authorized representatives of the U.S. Environmental Protection Agency and the Kentucky Division of Water shall have access to the Work whenever it is in preparation or progress. Contractor shall provide proper facilities for such access and inspection.

SC-13.03. Tests and Inspections. Amend paragraph 13.03.A by striking out the word "Engineer" and inserting the word "Owner" in its place.

Amend paragraph 13.03.C by striking out the word "Engineer" and inserting the word "Owner" in its place.

Amend paragraph 13.03.E by striking out the word "Engineer" in both locations where it appears in the paragraph and inserting the word "Owner" in its place.

Amend paragraph 13.03.F by striking out the word "Engineer" in both locations where it appears in the paragraph and inserting the word "Owner" in its place.

SC-13.04. Uncovering Work. Amend paragraph 13.04.A by striking out the words "Engineer" and "Engineer's" in all locations where they appear in the paragraph and inserting the words "Owner" and "Owner's", respectively, in their place.

Delete paragraph 13.04.B in its entirety and insert the following new paragraph in its place:

B. If Owner considers it necessary or advisable that covered Work be observed by Engineer or Owner's representatives, or inspected or tested by others, Contractor, at Owner's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Owner may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, Contractor shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If, however, such Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the

parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in paragraph 10.05.

SC-13.06. Correction or Removal of Defective Work. Amend paragraph 13.06.A by inserting the words “or Owner” following the word “Engineer”.

SC-13.07. Correction Period. Add the following new paragraph after paragraph 13.07.E:

F. Nothing in Article 13 concerning the correction period shall establish a period of limitation with respect to any other obligation which Contractor has under the Contract Documents. The establishment of time periods relates only to the specific obligations of Contractor to correct the Work, and has no relationship to the time within which Contractor's obligations under the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish Contractor's liability with respect to Contractor's obligations other than to specifically correct the Work.

All machinery, piping, materials, equipment, fittings, and restoration of every kind furnished under this Contract by the Contractor shall be free from defects of manufacture and/or workmanship. The Contractor agrees to replace materials, workmanship, and restoration, which includes all roadway pavement work, shoulder and ditch restoration and repairs, which are found to be defective within twenty four (24) months after issuance of the “Certificate of Substantial Completion”. In cases where such defects shall be caused by forces beyond the Contractor's control, as judged by the Owner, the replacements will not have to be made by the Contractor.

SC-13.08. Acceptance of Defective Work. Delete paragraph 13.08.A in its entirety and insert the following new paragraph in its place:

A. If, instead of requiring correction or removal and replacement of defective Work, Owner, prior to making final payment, prefers to accept it, Owner may do so. Contractor shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work and the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Owner making final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of the Work so accepted. If the acceptance occurs after making final payment, an appropriate amount will be paid by Contractor to Owner.

SC-13.09. Owner May Correct Defective Work. Amend paragraph 13.09.A by striking out the word “Engineer” in all locations where it appears in the paragraph and inserting the word “Owner” in its place.

SC-14. PAYMENTS TO CONTRACTOR AND COMPLETION.

SC-14.01. Schedule of Values. Amend paragraph 14.01.A by striking out the word “Engineer” and inserting the word “Owner” in its place.

SC-14.02. Progress Payments. Amend paragraph 14.02.A by striking out the word “Engineer” and inserting the word “Owner” in its place.

Add the following new paragraphs immediately after paragraph 14.02.A.3:

4. Contractor's Applications for Payment shall be accompanied by the documentation specified herein.
5. Payments for stored materials and equipment shall be based only upon the actual cost to Contractor of the materials and equipment and shall not include any overhead or profit to Contractor. Partial payments will not be made for undelivered materials or equipment.
6. During the progress of the Work, each Application for Payment shall be accompanied by Contractor's updated schedule of operations, or progress report, with such shop drawings schedules, procurement schedules, value of material on hand included in application, and other data specified in Contract Documents or reasonably required by Owner.

Delete paragraphs 14.02.B and 14.02.C in their entirety and insert the following new paragraphs in their place:

B. Review of Applications

1. Owner will, within 10 days after receipt of each Application for Payment, either begin processing the Application for Payment to Contractor or return the Application to Contractor indicating in writing Owner's reasons for refusing payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Owner's review of Contractor's Application for Payment will consider whether the following have been achieved:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.08, and to any other qualifications as reasonably applied by Owner); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as Owner or Engineer has observed the Work.
3. By processing and making such payment Owner will not thereby be deemed to have represented that:

- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work; or
- b. that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Owner's review of Contractor's Work for the purposes of processing payments nor Owner's making any such payments, including final payment, will impose responsibility on Owner:

- a. to supervise, direct, or control the Work, or
- b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
- c. for Contractor's performance of the Work.
- d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
- e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Owner may refuse to process or make the whole or any part of any payment if, in Owner's opinion, the criteria referred to in paragraph 14.02.B.2 has not been met. Owner may also refuse to process or make any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment previously made, to such extent as may be necessary in Owner's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Written Amendment or Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with paragraph 13.09; or
- d. Owner has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.A.

Delete paragraphs 14.02.C in its entirety and insert the following new paragraphs in its place:

C. Payment Becomes Due

1. Twenty-five days after presentation of the Application for Payment to Owner, the amount recommended will (subject to the provisions of paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

Amend paragraph 14.02.D.1 by striking out the words “recommended by Engineer” and inserting the words “requested by Contractor” in their place.

Delete paragraph 14.02.D.2 in its entirety and insert the following new paragraph in its place:

2. If Owner refuses to make payment of the full amount requested by Contractor, Owner must give Contractor immediate written notice stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner’s satisfaction the reasons for such action.

SC-14.04. Substantial Completion. Delete paragraph 14.04.A in its entirety and insert the following new paragraph in its place:

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Owner issue a certificate of Substantial Completion.
- B. Promptly thereafter, Owner and Contractor shall make an inspection of the Work to determine the status of completion. If Owner does not consider the Work substantially complete, Owner will notify Contractor in writing giving the reasons therefor.
- C. If Owner considers the Work substantially complete, Owner will within 14 days after the inspection of the Work execute and deliver to Contractor a statement of Substantial Completion.
- D. At the time of delivery of the certificate of Substantial Completion, Owner will deliver to Contractor a statement as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor subsequently agree otherwise in writing, Owner’s aforesaid statement will be binding on Owner and Contractor until final payment.

Add the following new paragraphs following paragraph 14.04.A:

To be considered substantially complete, the following portions of the Work must be operational and ready for Owner's continuous use as intended: Water main is tested and placed into service, services are connected to the new main if applicable to the project, and rough restoration is complete.

Portions of the Work not essential to operation, which can be completed without interruption of the Owner’s operation, may be completed after the Work is accepted as

substantially complete, and may include the following items: final restoration such as seeding and sodding.

SC-14.05. Partial Utilization. Amend paragraph 14.05.A by striking out the word “Engineer”.

SC-14.06. Final Inspection. Delete paragraph 14.06.A in its entirety and insert the following new paragraph in its place:

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Owner and Contractor shall promptly make a final inspection of the Work. Owner will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

SC-14.07. Final Application for Payment. Amend paragraph 14.07.A.1 by striking out the word “Engineer” and inserting the word “Owner” in its place.

Add the following new sentence immediately after the last sentence of paragraph 14.07.A.2.b.:

Consent of the surety, signed by an agent, must be accompanied by a certified copy of such agent's authority to act for the surety. The Contractor shall be responsible for providing all of the documents identified in this paragraph.

Delete paragraph 14.07.B in its entirety and insert the following new paragraph in its place:

B. *Review of Application and Acceptance*. If, on the basis of Owner’s observation of the Work during construction and final inspection, and Owner’s review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Owner is satisfied that the Work has been completed and Contractor’s other obligations under the Contract Documents have been fulfilled, Owner will process the final Application for Payment. Otherwise, Owner will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to process final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

Amend paragraph 14.07.C by striking out the words “recommended by Engineer” and inserting the words “requested by Contractor” in their place.

SC-14.08. Final Completion Delayed. Delete paragraph 14.08.A in its entirety and insert the following new paragraph in its place:

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, Owner shall, upon receipt of Contractor’s final Application for Payment, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Owner with the Application

for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

SC-15. SUSPENSION OF WORK AND TERMINATION.

SC-15.01. Owner May Suspend Work. Amend paragraph 15.01.A by striking out the words “and Engineer”.

SC-15.02. Owner May Terminate for Cause. Amend paragraph 15.02.B by deleting the fourth sentence of the paragraph, in its entirety, which begins: “Such Claims, costs, losses, and damages incurred...”.

SC-15.04. Contractor May Stop Work or Terminate. Delete paragraph 15.04.A and 15.04.B in their entirety and insert the following new paragraph in its place:

A. If, through no act or fault of Contractor, the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or Owner fails to act on any Application for Payment within 30 days after it is submitted, or Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner, and provided Owner does not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph 15.04 are not intended to preclude Contractor from making a Claim under paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor’s stopping the Work as permitted by this Paragraph.

SC-16. DISPUTE RESOLUTION.

Delete Article 16 in its entirety and insert the following new article in its place:

ARTICLE 16 - DISPUTES.

Arbitration will not be acceptable as a means for settling claims, disputes, and other matters.

SC-17. MISCELLANEOUS.

SC-17.04. Survival of Obligations. Add the following new paragraph immediately after paragraph 17.04.A:

B. Contractor shall obtain from all Suppliers and manufacturers any and all warranties and guarantees of such Suppliers and manufacturers, whether or not specifically required by the Specifications, and shall assign such warranties and guarantees to Owner. With respect thereto, Contractor shall render reasonable assistance to Owner

when requested, in order to enable Owner to enforce such warranties and guarantees. The assignment of any warranties or guarantees shall not affect the Correction Period or any other provisions of these Contract Documents.

End of Section

SUPPLEMENTAL GENERAL CONDITIONS

FOR

CLEAN WATER STATE REVOLVING FUND

DRINKING WATER STATE REVOLVING FUND

(Drinking Water and Wastewater)

Project Name: Newport Water Main Replacement

Project Number: Phase 3 of WX21037311

The attached instructions and regulations as listed below shall be incorporated into the Specifications and comprise Special Conditions.

	<u>Attachment No.</u>
SRF Special Provisions	1
KRS Chapter 45A Kentucky Model Procurement Code	2
Equal Employment Opportunity (EEO) Documents:	
Notice of Requirement for Affirmative Action	3
Construction Contract Specifications	4
EEO Goals for Region 4 Economic Areas	5
Check List of EEO Documentation for Bidders	6
Employer Information Report EEO-1 (SF 100)	7
Labor Standards Provisions for Federally Assisted Construction	8
Certifications:	
Debarment, Suspension and Other Responsibility Matters	9
Anti-lobbying	10
Disadvantaged Business Enterprise (DBE) Program	11
Bonds and Insurance	12
Storm Water General Permit	13
Davis-Bacon Wage Rate Requirements	14
American Iron and Steel Requirement	15

SRF SPECIAL PROVISIONS

- (a) Line crossings of all roads and streets shall be done in accordance with the Kentucky Transportation Cabinet requirements as may be set forth in the Special Conditions.
- (b) Construction is to be carried out so as to prevent by-passing of flows during construction unless a schedule has been approved by the State or EPA, whichever is applicable. Siltation and soil erosion must be minimized during construction. All construction projects with surface disturbance of more than 1 acre during the period of construction must have a KPDES Storm Water General Permit. The permit can be found at this [webpage](#).

If you have any questions regarding the completion of this form call the Surface Water Permits Branch at (502) 564-3410.
- (c) Restore disturbed areas to original or better condition.
- (d) Use of Chemicals: All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of either DOW or EPA. Use of all such chemicals and disposal of residues shall be in conformance with instructions on the manufacturer's label.
- (e) The construction of the project, including the letting of contracts in connection therewith, shall conform to the applicable requirements of state, territorial, and local laws and ordinances to the extent that such requirements do not conflict with Federal laws and this subchapter.
- (f) The owner shall provide and maintain competent and adequate supervision and inspection.
- (g) The Kentucky Infrastructure Authority and Kentucky Division of Water shall have access to the site and the project work at all times.
- (h) In the event Archaeological materials (arrowheads, stone tools, stone axes, prehistoric and historic pottery, bottles, foundations, Civil War artifacts, and other types of artifacts) are uncovered during the construction of this project, work is to immediately cease at the location and the Kentucky Heritage Council shall be contacted. The telephone number is (502) 564-7005. Construction shall commence at this location until a written release is received from the Kentucky Heritage Council. Failure to report a find could result in legal action.
- (i) This procurement will be subject to DOW Procurement Guidance including the Davis-Bacon Act.
- (j) Reasonable care shall be taken during construction to avoid damage to vegetation. Ornamental shrubbery and tree branches shall be temporarily tied back, where appropriate, to minimize damage. Trees which receive damage to branches shall be trimmed of those branches to improve the appearance of the tree. Tree trunks receiving damage from equipment shall be treated with a tree dressing.
- (k) No wastewater bypassing will occur during construction unless a schedule has been approved by the Kentucky Division of Water.
- (l) Change orders to the construction contract (if required) must be negotiated pursuant to DOW/KIA Procurement Guidance for Construction and Equipment Contracts.

**KRS CHAPTER 45A
KENTUCKY MODEL PROCUREMENT CODE**

45A.075 Methods of awarding state contracts.

Except as otherwise authorized by law, all state contracts shall be awarded by:

- (1) Competitive sealed bidding, pursuant to KRS 45A.080; or
- (2) Competitive negotiation, pursuant to KRS 45A.085 and 45A.090 or 45A.180; or
- (3) Noncompetitive negotiation, pursuant to KRS 45A.095; or
- (4) Small purchase procedures, pursuant to KRS 45A.100.

Effective: June 24, 2003

History: Amended 2003 Ky. Acts ch. 98, sec. 4, effective June 24, 2003. -- Created 1978 Ky. Acts ch. 110, sec. 16, effective January 1, 1979.

45A.080 Competitive sealed bidding.

(1) Contracts exceeding the amount provided by KRS 45A.100 shall be awarded by competitive sealed bidding, which may include the use of a reverse auction, unless it is determined in writing that this method is not practicable. Factors to be considered in determining whether competitive sealed bidding is not practicable shall include:

- (a) Whether specifications can be prepared that permit award on the basis of best value; and
- (b) The available sources, the time and place of performance, and other relevant circumstances as are appropriate for the use of competitive sealed bidding.

(2) The invitation for bids shall state that awards shall be made on the basis of best value. In any contract which is awarded under an invitation to bid which requires delivery by a specified date and imposes a penalty for late delivery, if the delivery is late, the contractor shall be given the opportunity to present evidence that the cause of the delay was beyond his control. If it is the opinion of the purchasing officer that there is sufficient justification for delayed delivery, the purchasing officer may adjust or waive any penalty that is provided for in the contract.

(3) Adequate public notice of the invitation for bids and any reverse auction shall be given a sufficient time prior to the date set forth for the opening of bids or beginning of the reverse auction. The notice may include posting on the Internet or publication in a newspaper or newspapers of general circulation in the state as determined by the secretary of the Finance and Administration Cabinet not less than seven (7) days before the date set for the opening of the bids and any reverse auction. The provisions of this subsection shall also apply to price contracts and purchase contracts of state institutions of higher education.

(4) Bids shall be opened publicly or entered through a reverse auction at the time and place designated in the invitation for bids. At the time the bids are opened, or the reverse auction has ended, the purchasing agency shall announce the agency's engineer's estimate, if applicable, and make it a part of the agency records pertaining to the letting of any contract for which bids were received. Each written or reverse auction bid, together with the name of the bidder and the agency's engineer's estimate, shall be recorded and be open to public inspection. Electronic bid opening and posting of the required information for public viewing shall satisfy the requirements of this subsection.

(5) The contract shall be awarded by written notice to the responsive and responsible bidder whose bid offers the best value.

(6) Correction or withdrawal of written or reverse auction bids shall be allowed only to the extent permitted by regulations issued by the secretary.

Effective: July 15, 2010

History: Amended 2010 Ky. Acts ch. 63, sec. 3, effective July 15, 2010. -- Amended 2000 Ky. Acts ch. 509, sec. 1, effective July 14, 2000. -- Amended 1998 Ky. Acts ch. 120, sec. 10, effective July 15, 1998. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 27, effective May 30, 1997. -- Amended 1996 Ky. Acts ch. 60, sec. 2, effective July 15, 1996. -- Amended 1994 Ky. Acts ch. 278, sec. 1, effective July 15, 1994. -- Amended 1982 Ky. Acts ch. 282, sec. 1, effective July 15, 1982. -- Amended 1979 (1st Extra. Sess.) Ky. Acts ch. 9, sec. 1, effective February 10, 1979. -- Created 1978 Ky. Acts ch. 110, sec. 17, effective January 1, 1979.

45A.085 Competitive negotiation.

- (1) When, under administrative regulations promulgated by the secretary or under KRS 45A.180, the purchasing officer determines in writing that the use of competitive sealed bidding is not practicable, and except as provided in KRS 45A.095 and 45A.100, a contract may be awarded by competitive negotiation, which may include the use of a reverse auction.
- (2) Adequate public notice of the request for proposals and any reverse auction shall be given in the same manner and circumstances as provided in KRS 45A.080(3).
- (3) Contracts other than contracts for projects utilizing an alternative project delivery method under KRS 45A.180 may be competitively negotiated when it is determined in writing by the purchasing officer that the bids received by competitive sealed bidding either are unreasonable as to all or part of the requirements, or were not independently reached in open competition, and for which each competitive bidder has been notified of the intention to negotiate and is given reasonable opportunity to negotiate.
- (4) Contracts for projects utilizing an alternative project delivery method shall be processed in accordance with KRS 45A.180.
- (5) The request for proposals shall indicate the relative importance of price and other evaluation factors, and any reverse auction procedures.
- (6) Award shall be made to the responsible and responsive offeror whose proposal is determined in writing to be the most advantageous to the Commonwealth, taking into consideration price and the evaluation factors set forth in the request for proposals and the reciprocal preference for resident bidders required under KRS 45A.494.
- (7) Written or oral discussions shall be conducted with all responsible offerors who submit proposals determined in writing to be reasonably susceptible of being selected for award. Discussions shall not disclose any information derived from proposals submitted by competing offerors. Discussions need not be conducted:
 - (a) With respect to prices, where the prices are fixed by law, reverse auction, or administrative regulation, except that consideration shall be given to competitive terms and conditions;
 - (b) Where time of delivery or performance will not permit discussions; or
 - (c) Where it can be clearly demonstrated and documented from the existence of adequate competition or prior experience with the particular supply, service, or construction item, that acceptance of an initial offer without discussion would result in fair and reasonable best value procurement, and the request for proposals notifies all offerors of the possibility that award may be made on the basis of the initial offers.

Effective: July 15, 2010

History: Amended 2010 Ky. Acts ch. 63, sec. 4, effective July 15, 2010; and ch. 162, sec. 8, effective July 15, 2010. -- Amended 2003 Ky. Acts ch. 98, sec. 5, effective June 24, 2003. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 28, effective May 30, 1997. -- Amended 1979 (1st Extra. Sess.) Ky. Acts ch. 9, sec. 2, effective February 10, 1979. -- Created 1978 Ky. Acts ch. 110, sec. 18, effective January 1, 1979.

45A.090 Negotiation after competitive sealed bidding when all bids exceed available funds.

- (1) In the event that all bids submitted pursuant to competitive sealed bidding under KRS 45A.080 result in bid prices in excess of the funds available for the purchase, and the chief purchasing officer determines in writing:
 - (a) That there are no additional funds available from any source so as to permit an award to the responsive and responsible bidder whose bid offers the best value; and
 - (b) The best interest of the state will not permit the delay attendant to a resolicitation under revised specifications, or for revised quantities, under competitive sealed bidding as provided in KRS 45A.080, then a negotiated award may be made as set forth in subsections (2) or (3) of this section.
- (2) Where there is more than one (1) bidder, competitive negotiations pursuant to KRS 45A.085(3) shall be conducted with the three (3) (two (2) if there are only two (2)) bidders determined in writing to be the most responsive and responsible bidders, based on criteria contained in the bid invitation and the reciprocal preference for resident bidders under KRS 45A.494. Such competitive negotiations shall be conducted under the following restrictions:
 - (a) If discussions pertaining to the revision of the specifications or quantities are held with any potential offeror, all other potential offerors shall be afforded an opportunity to take part in such discussions; and

(b) A request for proposals, based upon revised specifications or quantities, shall be issued as promptly as possible, shall provide for an expeditious response to the revised requirements, and shall be awarded upon the basis of best value.

(3) Where, after competitive sealed bidding, it is determined in writing that there is only one (1) responsive and responsible bidder, a noncompetitive negotiated award may be made with such bidder in accordance with KRS 45A.095.

Effective: July 15, 2010

History: Amended 2010 Ky. Acts ch. 162, sec. 9, effective July 15, 2010. -- Amended 2003 Ky. Acts ch. 98, sec. 6, effective June 24, 2003. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 29, effective May 30, 1997. -- Created 1978 Ky. Acts ch. 110, sec. 19, effective January 1, 1979.

45A.095 Noncompetitive negotiation.

(1) A contract may be made by noncompetitive negotiation only for sole source purchases, or when competition is not feasible, as determined by the purchasing officer in writing prior to award, under administrative regulations promulgated by the secretary of the Finance and Administration Cabinet or the governing boards of universities operating under KRS Chapter 164A, or when emergency conditions exist. Sole source is a situation in which there is only one (1) known capable supplier of a commodity or service, occasioned by the unique nature of the requirement, the supplier, or market conditions. Insofar as it is practical, no less than three (3) suppliers shall be solicited to submit written or oral quotations whenever it is determined that competitive sealed bidding is not feasible. Award shall be made to the supplier offering the best value. The names of the suppliers submitting quotations and the date and amount of each quotation shall be placed in the procurement file and maintained as a public record. Competitive bids may not be required:

(a) For contractual services where no competition exists, such as telephone service, electrical energy, and other public utility services;

(b) Where rates are fixed by law or ordinance;

(c) For library books;

(d) For commercial items that are purchased for resale;

(e) For interests in real property;

(f) For visiting speakers, professors, expert witnesses, and performing artists;

(g) For personal service contracts executed pursuant to KRS 45A.690 to 45A.725; and

(h) For agricultural products in accordance with KRS 45A.645.

(2) The chief procurement officer, the head of a using agency, or a person authorized in writing as the designee of either officer may make or authorize others to make emergency procurements when an emergency condition exists.

(3) An emergency condition is a situation which creates a threat or impending threat to public health, welfare, or safety such as may arise by reason of fires, floods, tornadoes, other natural or man-caused disasters, epidemics, riots, enemy attack, sabotage, explosion, power failure, energy shortages, transportation emergencies, equipment failures, state or federal legislative mandates, or similar events. The existence of the emergency condition creates an immediate and serious need for services, construction, or items of tangible personal property that cannot be met through normal procurement methods and the lack of which would seriously threaten the functioning of government, the preservation or protection of property, or the health or safety of any person.

(4) The Finance and Administration Cabinet may negotiate directly for the purchase of contractual services, supplies, materials, or equipment in bona fide emergencies regardless of estimated costs. The existence of the emergency shall be fully explained, in writing, by the head of the agency for which the purchase is to be made. The explanation shall be approved by the secretary of the Finance and Administration Cabinet and shall include the name of the vendor receiving the contract along with any other price quotations and a written determination for selection of the vendor receiving the contract. This information shall be filed with the record of all such purchases and made available to the public. Where practical, standard specifications shall be followed in making emergency purchases. In any event, every effort should be made to effect a competitively established price for purchases made by the state.

Effective: July 15, 2002

History: Amended 2002 Ky. Acts ch. 344, sec. 9, effective July 15, 2002. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 30, effective May 30, 1997. -- Amended 1990 Ky. Acts ch. 496, sec. 4, effective July 13, 1990. -- Created 1978 Ky. Acts ch. 110, sec. 20, effective January 1, 1979

45A.100 Small purchases by state governmental bodies.

(1) Procurements may be made in accordance with small purchase administrative regulations promulgated by the secretary of the Finance and Administration Cabinet, pursuant to KRS Chapter 13A, as follows:

(a) Up to ten thousand dollars (\$10,000) per project for construction and one thousand dollars (\$1,000) for purchases by any state governmental body, except for those state administrative bodies specified in paragraph (b) of this subsection; and

(b) Up to forty thousand dollars (\$40,000) per project for construction or purchases by the Finance and Administration Cabinet, state institutions of higher education, and the legislative branch of government.

(2) Procurement requirements shall not be artificially divided so as to constitute a small purchase under this section. Reverse auctions may be used for small purchase procurements. At least every two (2) years, the secretary shall review the prevailing costs of labor and materials and may make recommendations to the next regular session of the General Assembly for the revision of the then current maximum small purchase amount as justified by intervening changes in the cost of labor and materials.

(3) The secretary of the Finance and Administration Cabinet may grant to any state agency with a justifiable need a delegation of small purchasing authority which exceeds the agency's small purchase limit provided in subsection (1) of this section. Delegations of small purchasing authority shall be granted or revoked by the secretary of the Finance and Administration Cabinet, in accordance with administrative regulations promulgated by the cabinet pursuant to KRS Chapter 13A. These administrative regulations shall establish, at a minimum, the criteria for granting and revoking delegations of small purchasing authority, including the requesting agency's past compliance with purchasing regulations, the level of training of the agency's purchasing staff, and the extent to which the agency utilizes the Kentucky Automated Purchasing System. The administrative regulations may permit the secretary of the Finance and Administration Cabinet to delegate small purchase procurements up to the maximum amount specified in subsection (1)(b) of this section.

Effective: July 15, 2010

History: Amended 2010 Ky. Acts ch. 63, sec. 5, effective July 15, 2010. -- Amended 2002 Ky. Acts ch. 320, sec. 2, effective July 15, 2002. -- Amended 2000 Ky. Acts ch. 225, sec. 1, effective July 14, 2000. -- Amended 1996 Ky. Acts ch. 60, sec. 1, effective July 15, 1996. -- Amended 1994 Ky. Acts ch. 323, sec. 1, effective July 15, 1994. -- Amended 1990 Ky. Acts ch. 496, sec. 5, effective July 13, 1990. -- Amended 1986 Ky. Acts ch. 384, sec. 1, effective July 15, 1986. -- Amended 1984 Ky. Acts ch. 384, sec. 1, effective July 13, 1984. -- Amended 1982 Ky. Acts ch. 282, sec. 2, effective July 15, 1982. -- Amended 1980 Ky. Acts ch. 242, sec. 1, effective July 15, 1980; and ch. 250, sec. 19, effective April 9, 1980. -- Created 1978 Ky. Acts ch. 110, sec. 21, effective January 1, 1979.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO
ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

The following excerpts are from 45 FR 65984 (October 3, 1980):

The minority and female goals apply to Federal and federally assisted construction contractors and subcontractors which have covered contracts. The goals are expressed as a percentage of the total hours worked by such a covered or subcontractor's entire onsite construction workforce, which is working on any construction site within a relevant area. The goal applies to each construction craft and trade in the contractor's entire workforce in the relevant area including those employees working on private non-federally involved projects.

Until further notice, the following goals for minority utilization in each construction craft and trade shall be included in all Federal or federally assisted construction contracts and subcontracts in excess of \$10,000 to be performed in the respective geographic area. The goals are applicable to each nonexempt contractor's total onsite construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, federally assisted or non-federally related project, contract or subcontract.

Construction contractors which are participating in an approved Hometown Plan (see 41 CFR 60-4.5) are required to comply with the goals of the Hometown Plan with regard to construction work they perform in the area covered by the Hometown Plan. With regard to all their other covered construction work, such contractors are required to comply as follows:

Goals for female participation in each trade.....6.9%
Goals for minority participation in each trade.....Insert goals for each year
(see Attachment Number 5)

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or Federally assisted) performed in the covered area.

The following excerpts are from 45 FR 65977 (October 3, 1980):

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

As used in this Notice, and in the contract resulting from this solicitation, the covered area is (insert description of the geographical areas where the contract is to be performed giving the state, country, and city, if any).

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)**

EEO Specifications

Following is the standard language, which must be incorporated into all solicitations for offers and bids on all Federal and Federally assisted construction contracts or subcontracts in excess of \$10,000 to be performed in designated geographical areas:

1. As used in these specifications:
 - (a) Covered Area means the geographical area described in the solicitation from which this contract resulted.
 - (b) Director means Director, Office of Federal Contract Compliance Program, United States Department of Labor, or any person to whom the Director delegates authority;
 - (c) Employer identification number means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - (d) Minority includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take a good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7-a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensively as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligation.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7-b above.

- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, lay-off, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative actions obligations (7 a through p). The efforts of a contractor association, joint contractor-union, contractor-community, of other similar group of which the contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7 a through p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example: even though the Contractor has achieved its goal for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables for affirmative action standards to discriminate against any person because of race, color, religion, sex or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation, if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

EEO GOALS FOR ECONOMIC AREAS IN REGION 4
SOURCE: APPENDIX B-80 IN 45 FR 65984 (OCTOBER 3, 1980)

Kentucky:

053 Knoxville, TN

SMSA Counties:

3840 Knoxville, TN..... 6.6
 TN Anderson; TN Blount; TN Knox; TN Union.

Non-SMSA Counties 4.5

KY Bell; KY Harlan; KY Knox; KY Laurel; KY McCreary; KY Wayne; KY
 Whitley; TN Campbell; TN Claiborne; TN Cocke; TN Cumberland; TN Fentress;
 TN Grainger, TN Hamblen; TN Jefferson; TN Loudon; TN Morgan; TN Roane;
 TN Scott; TN Sevier.

054 Nashville, TN:

SMSA Counties:

1660 Clarksville - Hopkinsville, TN - KY 18.2
 KY Christian; TN Montgomery.

5360 Nashville - Davidson, TN 15.8

TN Cheatham, TN Davidson; TN Dickson; TN Robertson; TN Rutherford; TN
 Sumner; TN Williamson; TN Wilson.

Non-SMSA Counties 12.0

KY Allen; KY Barren; KY Butler; KY Clinton; KY Cumberland; KY Edmonson;
 KY Logan; KY Metcalfe; KY Monroe; KY Simpson; KY Todd; KY Trigg; KY
 Warren; TN Bedford; TN Cannon; TN Clay; TN Coffee; TN DeKalb; TN Franklin;
 TN Giles; TN Hickman; TN Houston; TN Humphreys; TN Jackson; TN Lawrence;
 TN Lewis; TN Macon; TN Marshall; TN Maury; TN Moore; TN Overton; TN
 Perry; TN Pickett; TN Putnam; TN Smith; TN Stewart; TN Trousdale; TN Van
 Buren; TN Warren; TN Wayne; TN White.

056 Paducah, KY:

Non-SMSA Counties 5.2

IL Hardin; IL Massac; IL Pope; KY Ballard; KY Caldwell; KY Calloway. KY
 Carlisle; KY Crittenden; KY Fulton; KY Graves; KY Hickman; KY Livingston;
 KY Lyon. KY McCracken; KY Marshall.

057 Louisville, KY:

SMSA Counties:

4520 Louisville, KY-IN 11.2
 IN Clark; IN Floyd; KY Bullitt; KY Jefferson; KY Oldham.

Non-SMSA Counties 9.6

IN Crawford; IN Harrison; IN Jefferson; IN Orange; IN Scott; IN Washington; KY
 Breckinridge; KY Grayson; KY Hardin; KY Hart; KY Henry; KY Larue; KY
 Marion; KY Meade; KY Nelson; KY Shelby; KY Spencer; KY Trimble; KY
 Washington.

058 Lexington, KY	
SMSA Counties	
4280 Lexington-Fayette, KY	10.8
KY Bourbon; KY Clark; KY Fayette; KY Jessamine; KY Scott; KY Woodford.	
Non-SMSA Counties	7.0
KY Adair KY Anderson; KY Bath; KY Boyle; KY Breathitt; KY Casey; KY Clay;	
KY Estill; KY Franklin; KY Garrard; KY Green; KY Harrison; KY Jackson; KY	
Knott; KY Lee; KY Leslie; KY Letcher; KY Lincoln; KY Madison; KY Magoffin;	
KY Menifee; KY Mercer; KY Montgomery; KY Morgan. KY Nicholas; KY	
Owsley; KY Perry; KY Powell; KY Pulaski; KY Rockcastle; KY Russell; KY	
Taylor; KY Wolfe.	
059 Huntington, WV:	
SMSA Counties:	
3400 Huntington - Ashland, WV-KY-OH	2.9
KY Boyd; KY Greenup; OH Lawrence; WV Cabell; WV Wayne.	
Non-SMSA Counties	2.5
KY Carter; KY Elliott; KY Floyd; KY Johnson; KY Lawrence; KY Martin; KY	
Pike; KY Rowan; OH Gallia; WV Lincoln; WV Logan; WV Mason; WV Mingo.	
067 Cincinnati, OH:	
SMSA Counties:	
1640 Cincinnati, OH-KY-IN	11.0
IN Dearborn; KY Boone; KY Campbell; KY Kenton; OH Clermont; OH Hamilton;	
OH Warren.	
3200 Hamilton - Middletown, OH	5.0
OH Butler.	
Non-SMSA Counties	9.2
IN Franklin; IN Ohio; IN Ripley; IN Switzerland; KY Bracken; KY Carroll; KY	
Fleming; KY Gallatin; KY Grant; KY Lewis; KY Mason; KY Owen; KY	
Pendleton; KY Robertson; OH Adams; OH Brown; OH Clinton; OH Highland.	
080 Evansville, IN:	
SMSA Counties	
2440 Evansville, IN-KY	4.8
IN Gibson; IN Posey; IN Vanderburgh; IN Warrick; KY Henderson.	
5990 Owensboro, KY	4.7
KY Daviess.	
Non-SMSA Counties	3.5
IL Edwards; IL Gallatin; IL Hamilton; IL Lawrence; IL Saline; IL Wabash; IL	
White; IN Dubois; IN Knox; IN Perry; IN Pike; IN Spencer; KY Hancock; KY	
Hopkins; KY McLean; KY Muhlenberg; KY Ohio; KY Union; KY Webster.	

**CHECK LIST OF EEO DOCUMENTATION FOR BIDDERS ON
GRANT/LOAN CONSTRUCTION (EXECUTIVE ORDER 11246 AS AMENDED)**

The low, responsive responsible bidder must forward the following items, in duplicate, to the owner no later than ten (10) days after bid opening. The owner shall have one (1) copy available for inspection by the Office of Federal Contracts Compliance (OFCC) within 14 days after the bid opening. More information can be found on the [OFCC](#) webpage.

1. Project Number. Project Location. Type of Construction.
2. Proof of registration with the Joint Reporting Commission. (See Attachment Number 7.)
3. Copy of Affirmative Action Plan of contractor. Indicate company official responsible for EEO.
4. List of current construction contracts, with dollar amount. List contracting Federal Agency, if applicable.
5. Statistics concerning company percent workforce, permanent and temporary, by sex, race, trade, handicapped, and age. 40 CFR Part 7.
6. List of employment sources for project in question. If union sources are utilized, indicate percentage of minority membership within the union crafts.
7. Anticipated employment needs for this project, by sex, race and trade, with estimate of minority participation in specific trades.
8. List of subcontractors (name, address and telephone) with dollar amount and duration of subcontract. Subcontractor contracts over \$10,000 must submit items 1- 7. The following information must be provided for all supplier contracts regardless of contract size: name of company, contact person, address, telephone number, dollar value of the contract, and a list of the materials to be supplied to the prime contractor.
9. List of any subcontract work yet to be committed with estimate of dollar amount and duration of contract.
10. Contract Price. Duration of prime contract.
11. DBE Documents - See special instructions regarding use of Minority, and Women Owned, and Small Businesses.

EMPLOYER INFORMATION REPORT EEO-1

Under the direction of the US Equal Employment Opportunity Commission, the Joint Reporting Committee is responsible for the full-length, multi-phase processing of employment statistics collected on the Employer Information Report EEO-1. This report, also termed Standard Form 100, details the sex and race/ethnic composition of an employer's work force by job category.

The Employer Information EEO-1 survey is conducted annually under the authority of Public Law 88-352, Title VII of the Civil Rights Act of 1964, as amended by the Equal Employment Opportunity Act of 1972. All employers with 15 or more employees are covered by Public Law 88-352 and are required to keep employment records as specified by Commission regulations. Based on the number of employees and federal contract activities, certain large employers are required to file an EEO-1 Report on an annual basis.

The EEO-1 Report must be filed by:

- (A) All private employers who are: (1) subject to Title VII of the Civil Rights Act of 1964 (as amended by the Equal Employment Opportunity Act of 1972) with 100 or more employees EXCLUDING State and local governments, primary and secondary school systems, institutions of higher education, Indian tribes and tax-exempt private memberships clubs other than labor organizations; OR (2) subject to Title VII who have fewer than 100 employees if the company is owned or affiliated with another company, or there is centralized ownership, control or management (such as central control of personnel policies and labor relations) so that the group legally constitutes a single enterprise and the entire enterprise employs a total of 100 or more employees.
- (B) All federal contractors (private employers), who: (1) are not exempt as provided for by 41 CFR 60-1.5, (2) have 50 or more employees, and (a) are prime contractors or first-tier subcontractors, and have a contract, subcontract, or purchase order amounting to \$50,000 or more; or (b) serve as depository of Government funds in any amount, or (c) is a financial institution which is an issuing and paying agent for U.S. Savings Bonds and Notes.

Only those establishments located in the District of Columbia and the 50 states are required to submit the EEO-1 Report. No Reports should be filed for establishments in Puerto Rico, the Virgin Islands or other American Protectorates.

When filing for the EEO-1 Report for the first time, go to the [U.S. Equal Employment Opportunity Commission](#) webpage and select "First Time Filers". Fill out the electronic questionnaire to enter your company into Joint Reporting Committee (JRC) system. Once you have completed the registration process, you will be contacted on how to proceed with the EEO-1 Report. If you have previously registered with the JRC, follow their instructions to update your information.

LABOR STANDARDS PROVISIONS FOR FEDERALLY ASSISTED CONSTRUCTION

Labor standards provisions applicable to contracts covering federally financed and assisted construction (29 CFR 5.5, Contract Provisions and Related Matters) that apply to EPA State Revolving Fund loans are:

(a)(4)(iii) *Equal employment opportunity*. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

(a)(5) *Compliance with Copeland Act requirements*. The contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

(a)(6) *Subcontracts*. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5 (a)(1) through (10) and such other clauses as the U.S. Environmental Protection Agency may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(a)(7) *Contract termination: debarment*. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(b) *Contractor Work Hours and Safety Standards Act*. The Administrator, EPA, shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by §5.5(a) or §4.6 of part 4 of this title. As used in this paragraph, the terms *laborers* and *mechanics* include watchmen and guards.

(b)(1) *Overtime requirements*. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(b)(2) *Violation; liability for unpaid wages; liquidated damages*. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for unliquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) *Withholding for unpaid wages and liquidated damages*. The U.S. Environmental Protection Agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime

contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) *Subcontracts.* The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in section §5.1, the Administrator of EPA shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Administrator of EPA shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the U.S. Environmental Protection Agency and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job. (Approved by the Office of Management and Budget under OMB control numbers 1215-0140 and 1215-0017.)

CERTIFICATIONS

Debarred Firms

All prime Construction Contractors shall certify that Subcontractors have not and will not be awarded to any firm that is currently on the EPA Master List of Debarred, Suspended and Voluntarily Excluded Persons in accordance with the provisions of 40 CFR 32.500(c). Debarment action is taken against a firm for noncompliance with Federal Law.

All bidders shall complete the attached certification (Attachment Number 9) and submit to the owner with the bid proposal.

Anti-lobbying Certification

All prime Construction Contractors must certify (Attachment Number 10) that no appropriated funds were or will be expended for the purpose of lobbying the Executive or Legislative Branches of the Federal Government or Federal Agency concerning this contract (contract in excess of \$100,000). If the Contractor has made or agreed to make payment to influence any member of Congress in regard to award of this contract, a Disclosure Form must be completed and submitted to the owner with the bid proposal.

All prime Contractors must require all Subcontractors to submit the certification, which must also be submitted to the owner.

**CERTIFICATION REGARDING DEBARMENT,
SUSPENSION AND OTHER RESPONSIBILITY MATTERS**

The prospective participant certifies to the best of its knowledge and belief that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or Local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Typed Name & Title of Authorized Representative

Signature of Authorized Representative

Date

_____ I am unable to certify to the above statements. My explanation is attached.

**CERTIFICATION REGARDING LOBBYING
CERTIFICATION FOR CONTRACTS,
GRANTS, LOANS, AND COOPERATIVE AGREEMENTS**

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Typed Name & Title of Authorized Representative

Signature of Authorized Representative

Date

_____ I am unable to certify to the above statements. My explanation is attached.

EPA DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

EPA's Disadvantaged Business Enterprise Program rule applies to contract procurement actions funded in part by EPA assistance agreements awarded after May 27, 2008. The rule is found at Federal regulation Title 40, Part 33. Specific responsibilities are highlighted below.

Loan recipient responsibilities:

- Include in each contract with a primary contractor the following term and condition:

 “The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract.” (*Appendix A to Part 33—Term and Condition*)
- Employ the six Good Faith Efforts during prime contractor procurement (§33.301).
- Require the prime contractor to comply with the following prime contractor requirements of Title 40 Part 33:
 - To pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient (§33.302(a)).
 - To notify recipient in writing prior to any termination of a DBE subcontractor for convenience by the prime contractor (§33.302(b)).
 - To employ the six Good Faith Efforts described in §33.301 if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason (§33.302(c)).
 - To employ the six Good Faith Efforts described in §33.301 even if the prime contractor has achieved its fair share objectives under subpart D of Part 33 (§33.302(d)).
 - To provide EPA Form 6100-2 – *DBE Program Subcontractor Participation Form* to all DBE subcontractors (§33.302(e)). **NOTE: this requirement has been suspended.**
 - To submit EPA Forms 6100-3 – *DBE Program Subcontractor Performance Form* and 6100-4 *DBE Program Subcontractor Utilization Form* as part of the bid package or proposal (§33.302(f) and (g)). **NOTE: this requirement has been suspended.**
 - To employ the six Good Faith Efforts steps in paragraphs (a) through (f) of §33.301 while procuring any subcontracts (§33.302(i)).
- Conduct an Availability Analysis and negotiate fair share objectives with EPA (§33.401), or adopt the fair share objectives of the oversight state agency revolving loan fund for comparable infrastructure (§33.405(b)(3)).
- Maintain all records documenting its compliance with the requirements of Title 40 Part 33, including documentation of its, and its prime contractors', good faith efforts (§33.501(a)).

- Create and maintain a bidders list and require the prime contractor to create and maintain a bidders list (§33.501(b)). This list must include all firms that bid or quote on prime contracts, or bid or quote subcontracts, including both MBE/WBEs and non-MBE/WBEs. This list must be kept until the project period for the identified loan has ended. The following information must be obtained from all prime and subcontractors:
 - (a) Entity's name with point of contact,
 - (b) Entity's mailing address, telephone number, and email address,
 - (c) The procurement on which the entity bid or quoted, and when, and,
 - (d) Entity's status as an MBE/WBE or non-MBE/WBE.

Prime Contractor Responsibilities:

- Include in each contract with a subcontractor the following term and condition:

“The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract.” (*Appendix A to Part 33—Term and Condition*)
- Employ the six Good Faith Efforts during subcontractor procurement (§33.301).
- Pay subcontractors for satisfactory performance no more than 30 days from receipt of payment from the recipient (§33.302(a)).
- Notify recipient in writing prior to termination of a DBE subcontractor for convenience (§33.302(b)).
- Employ the six Good Faith Efforts described in §33.301 if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason. (§33.302(c)).
- Employ the six Good Faith Efforts described in §33.301 even if the fair share objectives have been achieved under subpart D of Part 33 (§33.302(d)).
- Provide EPA Forms 6100-2 – *DBE Program Subcontractor Participation Form* and 6100-3 – *DBE Program Subcontractor Performance Form* to each DBE subcontractor prior to opening of the subcontractor's bid or proposal (§33.302(e) and (f)). **NOTE: this requirement has been suspended.**
- Complete EPA Form 6100-4 – *DBE Program Subcontractor Utilization Form* (§33.302(g)). **NOTE: this requirement has been suspended.**
- Submit to recipient with the bid package or proposal the completed EPA Form 6100-4, plus an EPA Form 6100-3 for each DBE subcontractor used in the bid or proposal (§33.302(f) and (g)). **NOTE: this requirement has been suspended.**
- Maintain all records documenting its compliance with the requirements of Title 40 Part 33, including documentation of its, and its subcontractors', good faith efforts (§33.501(a)).
- Create and maintain a bidders list and require the subcontractor to create and maintain a bidders list (§33.501(b)). This list must include all firms that bid or quote on subcontracts, including both

MBE/WBEs and non-MBE/WBEs. This list must be kept until the project period for the identified loan has ended. The following information must be obtained from all subcontractors:

- (a) Entity's name with point of contact,
- (b) Entity's mailing address, telephone number, and email address,
- (c) The procurement on which the entity bid or quoted, and when, and,
- (d) Entity's status as an MBE/WBE or non-MBE/WBE.

Subcontractor Responsibilities:

- May submit EPA Form 6100-2 – *DBE Program Subcontractor Participation Form* directly to DOW Project Manager (§33.302(e)). **NOTE: this requirement has been suspended.**
- Must complete EPA Form 6100-3 – *DBE Program Subcontractor Performance Form* and submit it to the prime contractor soliciting services prior to the prime contractor opening bids or quotes. **NOTE: this requirement has been suspended.**

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION POLICY

PROJECT NAME: _____ **BID DATE:** _____

1. Name, address and telephone number of contact person on all DBE matters:

Prime Contractor's Name: _____
Contact Person: _____
Address: _____
Phone: _____
Cell Phone: _____
Email: _____
Total Contract Amount: _____

2. Total dollar amount/percent of contract of MBE participation: _____

3. Total dollar amount/percent of contract of WBE participation: _____

4. Are certifications* for each MBE/WBE/DBE subcontractor enclosed; if no, please explain: ☐ Yes ☐ No

5. Are MBE/WBE/DBE subcontracts or letters of intent signed by both parties enclosed; if no, please explain: ☐ Yes ☐ No

6. List of MBE Subcontractors:

Name: _____
Contact Person: _____
Address: _____
Phone: _____
Cell Phone: _____
Email: _____
Type of Contract: _____
Work to be Done: _____
Amount: _____

7. List of WBE Subcontractors:

Name: _____
Contact Person: _____
Address: _____
Phone: _____
Cell Phone: _____
Email: _____
Type of Contract: _____
Work to be Done: _____
Amount: _____

Attach Additional Sheets, If Necessary

*Self-certification: Self certification of MBE/WBE/DBE firms will NOT be accepted as a valid form of certification of MBE/WBE/DBE status.

8. Information and documentation concerning efforts taken to comply with EPA's "six good faith efforts"

- (i). Ensure DBE construction firms or material suppliers are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities; including placing DBEs on solicitation lists and soliciting them whenever they are potential sources. A good source for a list of DBEs is the Kentucky Transportation's [Certified DBE Directory](#) webpage.

☐ The prime contractor certifies that a solicitation list of qualified DBE vendors was developed for current and future solicitations. *Submit a copy of the list as documentation.*

- (ii). Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process; including, whenever possible, posting solicitation for bids or proposals for a sufficient amount of time as to receive a competitive bid or proposal pool.

☐ The prime contractor certifies that every opportunity was provided to a number of DBEs to encourage their participation in the competitive process and that an adequate amount of time was provided for response. Must do at least one of the below.

- a. List each DBE construction firm or material supplier to which a solicitation was attempted. *Submit copies of letters, emails, faxes, telecommunication logs, certified mail receipts, returned envelopes, certified mail return receipts, etc. as documentation.*

Company name and phone number: _____

Area of work expertise: _____

Date of any follow-ups and person spoke to: _____

- b. Advertisements, if applicable: List each publication in which an announcement or notification was placed. *Submit original advertisement or a copy of the advertisement with an affidavit of publication for each announcement as documentation.*

Name of publication: _____

Date(s) of advertisement: _____

Specific subcontract areas announced: _____

- c. Other, if applicable: List each notification method in which an announcement or outreach was used; list serve, public meeting, etc. *Submit applicable information to document effort.*

Method of notification: _____

Date(s) of notification: _____

- (iii). Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs; including dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

☐ The prime contractor certifies that the project was broken into its basic elements (i.e., dirt hauling, landscaping, painting, pipe installation, material supplies, etc.) and that a determination was made whether it's economically feasible to bid the elements separately and that the analysis of this effort was documented with a short memo to the project file.

- (iv). Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises.
- ☐ The prime contractor certifies that they established delivery schedules which would allow DBEs to participate in the project and the effort was documented with a short memo to the project file.
- (v). Use the services and assistance of the Small Business Administration (SBA). The easiest way to utilize their services is to visit the [SBA](#) webpage and use the electronic tools available there or you may send the nearest SBA office a certified letter that generally describes the solicitation, the dates it will be open, the types of vendors you are seeking and applicable Standard Industrial Classification (SIC) or North American Industry Classification System (NAIC) codes if known. Or, you may use the services and assistance of the Kentucky Procurement Technical Assistance Center (PTAC) **and** the Kentucky Department of Transportation (KDOT). The easiest way to utilize the services of Kentucky PTAC and KDOT is to send an email to kryptacinfo@kstc.com and Melvin.Bynes2@ky.gov and generally describe the solicitation, the dates it will be open, the types of vendors you are seeking and applicable SIC or NAIC codes if known.
- ☐ The prime contractor certifies that the assistance of the SBA or PTAC **and** KDOT was utilized. *Submit pages printed off the SBA websites which evidence efforts to register a solicitation on the site or submit copies of the letter sent and certified mail receipt as documentation; or submit copies of emails sent to PTAC and DOT as documentation.*
- (vi). If a Prime contractor awards any subcontracts, require the subcontractor to take the steps in numbers (i) through (v) above.
- ☐ The prime contractor certifies that subcontractors used for this project will be required to follow the steps of the "six good faith efforts" as listed above.

9. Signature and date:

To the best of my knowledge and belief, all "six good faith efforts" have been met and the information contained in this document is true and correct; the document has been duly authorized by the legal representative.

Signature

Print name and title

Date

BIDDER'S LIST FORM

OWNER: _____

LOAN NO: _____

PROJECT TITLE: _____

BID DATE: _____

Instructions:

1. Per 40 CFR §33.501(b), this list must include all firms that were solicited for participation, bid on, or quoted for a prime contract or subcontract under EPA assisted projects, includes both DBE's and non DBE's.
2. SRF loan participants must keep the Bidder's List until the project period for the identified loan has ended and no funds are remaining.
3. This list must be submitted to DOW in the ATA Package. Contract Award Approval cannot be given until this form has been received by DOW.
4. The following information must be obtained from all prime and subcontractors. Please complete the form below:

ENTITY'S NAME	MAILING ADDRESS	CONTACT PERSON	PHONE#	E-MAIL ADDRESS	M/WBE?

BONDS AND INSURANCE

The minimum requirements shall be as follows:

Bonding requirements for contracts of \$100,000 or less are contained in 40 CFR 31.36(h).

Bond requirements for contracts in excess of \$100,000 are:

- Bid guarantee equivalent to five percent of the bid price. The bid guarantee shall consist of a firm commitment such as a certified check or bid bond submitted with the bid;
- Performance bond equal to 100 percent of the contract price, and
- Payment bond equal to 100 percent of the contract price. Bonds must be obtained from companies holding Certificates of Authority as acceptable sureties, issued by the U.S. Treasury.

Insurance requirements are contained in the General Conditions of the contract. In addition to the other required insurance, the owner or the contractor, as appropriate, must acquire any flood insurance made available by the Federal Emergency Management Agency as required by 44 CFR Parts 59-79, if construction will take place in a flood hazard area identified by the Federal Emergency Management Agency. The owner's requirements on Flood Insurance are contained in the Special Conditions Section of the Contracts Documents.

STORM WATER GENERAL PERMIT

All construction projects with surface disturbance of more than 1 acre during the period of construction must have a KPDES Storm Water General Permit. The permit can be found at this [webpage](#).

If you have any questions regarding the completion of this form call the Surface Water Permits Branch, at (502) 564-3410.

DAVIS-BACON WAGE RATE REQUIREMENTS

CWSRF: The recipient agrees to include in all agreements to provide assistance for the construction of treatment works carried out in whole or in part with such assistance made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.), or with such assistance made available under section 205(m) of that Act (33 U.S.C. 1285(m)), or both, a term and condition requiring compliance with the requirements of section 513 of that Act (33 U.S.C. 1372) in all procurement contracts and sub-grants, and require that loan recipients, procurement contractors and sub-grantees include such a term and condition in subcontracts and other lower tiered transactions. All contracts and subcontracts for the construction of treatment works carried out in whole or in part with assistance made available as stated herein shall insert in full in any contract in excess of \$2,000 the contract clauses as set forth below titled “Wage Rate Requirements Under The Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6)”. This term and condition applies to all agreements to provide assistance under the authorities referenced herein, whether in the form of a loan, bond purchase, grant, or any other vehicle to provide financing for a project, where such agreements are executed on or after October 30, 2009.

DWSRF: The recipient agrees to include in all agreements to provide assistance for any construction project carried out in whole or in part with such assistance made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12), a term and condition requiring compliance with the requirements of section 1450(e) of the Safe Drinking Water Act (42 U.S.C. 300j-9(e)) in all procurement contracts and sub-grants, and require that loan recipients, procurement contractors and sub-grantees include such a term and condition in subcontracts and other lower tiered transactions. All contracts and subcontracts for any construction project carried out in whole or in part with assistance made available as stated herein shall insert in full in any contract in excess of \$2,000 the contract clauses as set forth below entitled “Wage Rate Requirements Under The Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6)”. This term and condition applies to all agreements to provide assistance under the authorities referenced herein, whether in the form of a loan, bond purchase, grant, or any other vehicle to provide financing for a project, where such agreements are executed on or after October 30, 2009.

Wage Rate Requirements under the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6)

Preamble

With respect to the Clean Water and Safe Drinking Water State Revolving Funds, EPA provides capitalization grants to each State which in turn provides subgrants or loans to eligible entities within the State. Typically, the subrecipients are municipal or other local governmental entities that manage the funds. For these types of recipients, the provisions set forth under Roman Numeral I, below, shall apply. Although EPA and the State remain responsible for ensuring subrecipients’ compliance with the wage rate requirements set forth herein, those subrecipients shall have the primary responsibility to maintain payroll records as described in Section 3(ii)(A), below and for compliance as described in Section I-5.

Occasionally, the subrecipient may be a private for profit or not for profit entity. For these types of recipients, the provisions set forth in Roman Numeral II, below, shall apply. Although EPA and the State remain responsible for ensuring subrecipients’ compliance with the wage rate requirements set forth herein, those subrecipients shall have the primary responsibility to maintain payroll records as described in Section II-3(ii)(A), below and for compliance as described in Section II-5.

I. Requirements under the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6) for Subrecipients that are Governmental Entities:

The following terms and conditions specify how recipients will assist EPA in meeting its Davis-Bacon (DB) responsibilities when DB applies to EPA awards of financial assistance under the FY 2013 Continuing Resolution with respect to State recipients and subrecipients that are governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient. The recipient or subrecipient may also obtain additional guidance from [Department of Labor's](#) webpage.

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Continuing Resolution, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor the [General Services Administration](#) website weekly to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor the [General Services Administration](#) website on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(b) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from the [General Services Administration](#) website into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage

determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2013 Continuing Resolution, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's [General Services Administration](#) website.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the [Wage and Hour Division's](#) webpage or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under §5.5(a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5(a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance” required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman’s hourly rate) specified in the contractor’s or subcontractor’s registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice’s level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for

the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification.

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour [District Office](#).

II. Requirements under the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6) for Subrecipients that are not Governmental Agencies

The following terms and conditions specify how recipients will assist EPA in meeting its DB responsibilities when DB applies to EPA awards of financial assistance under the FY2013 Continuing Resolution with respect to subrecipients that are not governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient for guidance. The recipient or subrecipient may also obtain additional guidance from [DOL's](#) webpage.

Under these terms and conditions, the subrecipient must submit its proposed DB wage determinations to the State recipient for approval prior to including the wage determination in any solicitation, contract task orders, work assignments, or similar instruments to existing contractors.

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Continuing Resolution, Davis-Bacon prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients must obtain proposed wage determinations for specific localities from the U.S. Department of Labor's [General Services Administration](#) website. After the Subrecipient obtains its proposed wage determination, it must submit the wage determination to (insert contact information for State recipient DB point of contact for wage determination) for approval prior to inserting the wage determination into a solicitation, contract or issuing task orders, work assignments or similar instruments to existing contractors (ordering instruments unless subsequently directed otherwise by the State recipient Award Official).

(b) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor the U.S. Department of Labor's [General Services Administration](#) website on a weekly basis to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor the U.S. Department of Labor's [General Services Administration](#) website on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(c) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from the U.S. Department of Labor's [General Services Administration](#) website into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract

or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2013 Continuing Resolution, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's [General Services Administration](#) website.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient(s) to the State award official. The State award official will transmit the report, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request, and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s) shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the

site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the [Wage and Hour Division's](#) webpage or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5(a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5(a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and

Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act.

These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient shall upon the request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (a)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification.

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour [District Office](#) or its successor site.

AMERICAN IRON AND STEEL REQUIREMENT

The Contractor acknowledges to and for the benefit of the _____ (“Purchaser”) and the State of Kentucky (the “State”) that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or Drinking Water State Revolving Fund that have statutory requirements commonly known as “American Iron and Steel;” that requires all of the iron and steel products used in the project to be produced in the United States (“American Iron and Steel Requirement”) including iron and steel products provided by the Contractor pursuant to this Agreement.

The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State.

Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser).

While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

Sample Certification

The following information is provided as a sample letter of step certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name
Company Address
City, State Zip

Subject: American Iron and Steel Step Certification for Project (XXXXXXXXXX)

I, (company representative), certify that the (melting, bending, coating, galvanizing, cutting, etc.) process for (manufacturing or fabricating) the following products and/or materials shipped or provided for the subject project is in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

1. XXXX
2. XXXX
3. XXXX

Such process took place at the following location:

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

EMPLOYMENT REQUIREMENTS AND WAGE RATES

R-1. GENERAL. The successful bidder will be required to conform to all provisions of the federal Davis-Bacon and Related Acts (The Act) which requires that all laborers and mechanics employed by contractors and subcontractors performing on federal contracts (and contractors and subcontractors performing on federally assisted contracts under the related ACTS) in excess of \$2,000 pay their laborers and mechanics not less than the prevailing wage rates and fringe benefits, as determined by the Department of Labor, for corresponding classes of laborers and mechanics employed on similar projects in the area.

This Contract shall be based upon payment by the Contractor and his Subcontractors of wage rates not less than the prevailing hourly wage rate for each craft or type of workman engaged on the Work as determined by the Department of Labor.

The Contractor and each Subcontractor shall keep accurate records indicating the hours worked each day by each employee in each classification of work and the amount paid each employee for his work in each classification. Such records shall be open to the inspection and transcript of the Commissioner of Labor or his duly authorized representatives at any reasonable time. These payroll records shall not be destroyed or removed from the state for one year following completion of the improvement.

The Contractor and each Subcontractor shall post and keep posted in a conspicuous place or places at the construction site a copy or copies of prevailing rates of wages and working hours as prescribed in these Contract Documents.

If, during the life of this Contract, the prevailing hourly rate of wages is changed by the Department of Labor, such change shall not be the basis of any claim by the Contractor against the Owner, nor will deductions be made by the Owner against sums due the Contractor by reason of any such change.

The prevailing wage law does not prohibit payment of more than the prevailing rate of wages.

R-2. PREVAILING WAGES.

The Contractor shall note that where a contract is not awarded within 90 days from the date of establishment of the prevailing wages, there shall be a redetermination of the prevailing rate of wage before the contract is awarded.

Davis Bacon wages can be obtained from the Wage Determinations Online website. Use this link to find the Davis Bacon wages:

https://sam.gov/search/?index=dbra&sort=-modifiedDate&page=1&pageSize=25&sfm%5Bstatus%5D%5Bis_active%5D=true&sfm%5BsimpleSearch%5D%5BkeywordRadio%5D=ALL

Use the pull-down menus to enter:

- State = “Kentucky”
 - County = “Campbell” & “Kenton”
 - DBA: Construction Type = “Heavy”
- to find the Davis Bacon Wages.

"General Decision Number: KY20250065 01/03/2025

Superseded General Decision Number: KY20240065

State: Kentucky

Construction Type: Heavy

County: Campbell County in Kentucky.

HEAVY CONSTRUCTION PROJECTS (including sewer/water construction).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022: 	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022: 	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be

adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/03/2025

ASBE0008-007 03/01/2024

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR.....	\$ 34.23	21.94

ELEC0369-008 05/29/2024

	Rates	Fringes
ELECTRICIAN.....	\$ 37.88	21.38

ENGI0018-016 05/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Backhoe/Excavator/Trackhoe).....	\$ 44.14	16.41

ENGI0181-016 07/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR GROUP 1.....	\$ 40.05	19.10

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Crane; Forklift

Operators on cranes with boom 150 feet and over, including jib, shall receive \$0.75 above Group 1. All cranes with piling leads will receive \$0.50 above Group 1 rate regardless of boom length. Combination rate shall mean \$0.50 per hour above the basic hourly rate of pay.

Employees assigned to work below ground level are to be paid 10% above basic wage rate. This does not apply to open cut work.

ENGI0181-019 06/10/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 40.05	19.10
GROUP 2.....	\$ 37.19	19.10
GROUP 3.....	\$ 37.64	19.10
GROUP 4.....	\$ 36.87	19.10

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Drill; Pumpcrete; Roller (Bituminous)

GROUP 2 - Bobcat/Skid Steer/Skid Loader; Concrete Pump;
Roller (Rock)

GROUP 3 - Articulating Truck Operator

GROUP 4 - Pump; Roller (Earth)

Operators on cranes with booms 150 feet and over (including jib) shall receive \$1.00 above Group 1 rate; 250 feet and over including jib shall receive \$1.50 above Class 1 rate. Combination Rate: All crane operators operating cranes, where the length of the boom in combination with the length of the piling leads equal or exceeds 150 feet, shall receive \$1.00 above the Group 1 rate.

Employees assigned to work below ground level are to be paid 10% above basic wage rate. This does not apply to open cut work.

IRON0044-005 06/01/2024

	Rates	Fringes
IRONWORKER (STRUCTURAL AND REINFORCING)	\$ 35.37	23.00

IRON0070-011 06/01/2024

	Rates	Fringes
IRONWORKER, ORNAMENTAL.....	\$ 34.59	25.00

LABO0189-016 07/01/2024

	Rates	Fringes
LABORER		
Concrete Worker & Grade Checker.....	\$ 23.96	18.58
Tamper (Hand Held/Walk Behind)	\$ 24.21	18.58

LABO0265-005 05/01/2024

	Rates	Fringes
LABORER		
Concrete Saw (Hand Held/Walk Behind) & Pipelayer.....	\$ 35.69	14.45
Flagger & Landscape.....	\$ 35.52	14.45

SUKY2011-021 06/25/2014		

	Rates	Fringes
CARPENTER (Form Work Only).....	\$ 24.80	8.76
LABORER: Common or General.....	\$ 22.24	9.63
LABORER: Concrete Finishing.....	\$ 25.75	8.60
OPERATOR: Bulldozer.....	\$ 28.04	13.00
OPERATOR: Loader.....	\$ 26.68	13.00
OPERATOR: Mechanic.....	\$ 28.60	11.83
OPERATOR: Oiler.....	\$ 24.34	13.00
OPERATOR: Trencher.....	\$ 26.27	12.37
TRUCK DRIVER: Dump Truck.....	\$ 17.82	3.26

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within

the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by

computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

PROJECT REQUIREMENTS

1. GENERAL DESCRIPTION OF WORK. The Work to be performed under these Contract Documents is generally described as follows: Furnishing all plant, materials, equipment, supplies, labor and transportation, including fuel, power, water, (except any materials, equipment, utility, or service, if any, specified herein to be furnished by the District), and performing all work required in the scope of work in the Contract, in strict accordance with the specifications, schedules, and drawings, all of which are made a part hereof and including such detail drawings as may be furnished by the District from time to time during the prosecution of the work in explanation of said drawings.

2. COORDINATION. Contractor shall plan, schedule, and coordinate its operations in a manner which will facilitate the simultaneous progress of the work included under other contracts outside the scope of these Contract Documents if applicable.

3. MATERIALS TO BE FURNISHED BY OWNER. If the Owner is supplying some of the materials for this project (eg. air release valves, meter materials) it shall be indicated on the bid item unit price sheet and Measurement and Payment Section 1025. Items will be available at the Owner's storage yard unless other provisions have been made.

4. RESPONSIBILITY FOR MATERIALS AND EQUIPMENT.

4.01. Items Furnished by Owner. Contractor's responsibility for materials and equipment furnished by Owner shall begin at the point of delivery on acceptance by Contractor. Contractor shall carefully examine each shipment prior to acceptance and shall reject all defective items. Owner reserves the right, however, to accept items rejected by Contractor and to authorize their installation in the Work.

Defective materials and equipment discovered after installation and prior to final acceptance of the Work, where the defect is of a nature not detectable by visual examination and other appropriate field inspection methods, shall be replaced by Owner, together with such additional materials and supplies as may be necessary for their replacement. Contractor shall furnish all necessary tools, equipment, and appliances, and perform all necessary labor, for the removal and replacement of such defective items in a manner acceptable to Owner; adjustment to the Contract Price for the costs of the removal and replacement shall be made in accordance with Article 11 of the General Conditions.

All materials and equipment furnished by Owner which disappear or are damaged after their acceptance by Contractor shall be replaced by and at the expense of Contractor. Replacements shall conform to the original procurement specifications.

Contractor shall be responsible for all unloading, reloading, transporting to the site, storage if necessary, re-handling, and installation.

All items shall be unloaded promptly after arrival. All charges for demurrage due to negligence or delay by Contractor shall be paid by Contractor. Equipment and materials shall be handled by methods which will prevent damage.

Equipment and materials shall be protected from exposure to the elements. All equipment shall be stored in accordance with the General Equipment Stipulations.

Contractor shall accept the risk of any delay in delivery of equipment or materials furnished by Owner, and if the Work is delayed, Contractor shall have no claim for damages or contract adjustment other than an extension of time and the waiving of liquidated damages occasioned by the delay.

All equipment shall be arranged and installed as indicated on the Drawings, and in conformity with installation drawings and instructions furnished to Owner by the manufacturer of the equipment.

4.02. Items Furnished by Contractor. Contractor shall be fully responsible for all materials and equipment which it has furnished.

5. OFFSITE STORAGE. Offsite storage arrangement shall be approved by Owner for all materials and equipment not incorporated into the Work but included in Applications for Payment. Such offsite storage arrangement shall be presented in writing and shall afford adequate and satisfactory security and protection. Offsite storage facilities shall be accessible to Owner.

6. SUBSTITUTES AND "OR-EQUAL" ITEMS. Provisions for evaluation of substitutes and "or-equal" items of materials and equipment are covered in Paragraph 6.05 of the General Conditions. Requests for review of equivalency will not be accepted by Owner from anyone except Contractor, and such requests will not be considered until after the Contract has been awarded.

7. PREPARATION FOR SHIPMENT. All materials shall be suitably packaged to facilitate handling and protect against damage during transit and storage. Painted surfaces shall be protected against impact, abrasion, discoloration, and other damage. All painted surfaces which are damaged prior to acceptance of equipment shall be repainted to the satisfaction of Owner.

Each item, package, or bundle of material shall be tagged or marked as identified in the delivery schedule or on the Shop Drawings. Complete packing lists and bills of material shall be included with each shipment.

8. SALVAGE OF MATERIALS AND EQUIPMENT. Existing materials and equipment removed, and not reused as a part of the Work, shall become Contractor's property, except the following items which shall remain Owner's property: Fire Hydrants, temporary plugs, and any unused materials supplied by the Owner.

Contractor shall carefully remove, in a manner to prevent damage, all materials and equipment specified or indicated to be salvaged and reused or to remain the property of Owner. Contractor shall store and protect salvaged items specified or indicated to be reused in the Work.

Salvaged items not to be reused in the Work, but to remain Owner's property, shall be delivered by Contractor in good condition to Owner's storage yard.

Any items damaged in removal, storage, or handling through carelessness or improper procedures shall be replaced by Contractor in kind or with new items.

Contractor may furnish and install new items instead of those specified or indicated to be salvaged and reused, in which case such removed items will become Contractor's property.

Existing materials and equipment removed by Contractor shall not be reused in the Work except where so specified or indicated.

9. EASEMENTS AND RIGHTS-OF-WAY. The easements and rights-of-way for the pipelines will be provided by Owner. Contractor shall confine its construction operations within the limits indicated on the Drawings. Contractor shall use due care in placing construction tools, equipment, excavated materials, and pipeline materials and supplies in order to avoid damage to property and interference with traffic.

9.01. On Private Property. Easements across private property are indicated on the Drawings. Contractor shall set stakes to mark the boundaries of construction easements across private property. The stakes shall be protected and maintained until completion of construction and cleanup.

Contractor shall not enter any private property outside the designated construction easement boundaries without written permission from the owner of the property.

Whenever the easement is occupied by crops which will be damaged by construction operations, Contractor shall notify the owner sufficiently in advance so that the crops may be removed before excavation or trenching is started. Contractor shall be responsible for all damage to crops outside the easement and shall make satisfactory settlement for the damage directly with the owner.

Where the line crosses fields which are leveled for irrigation or terraced, Contractor shall relevel irrigated fields and replace all terraces to their original or better condition, and to the satisfaction of the owner.

9.02. Work Within Highway and Railroad Rights-of-Way. Permits shall be obtained by Owner. All Work performed and all operations of Contractor, its employees, or Subcontractors within the limits of railroad and highway rights-of-way shall be in conformity with the requirements and be under the control (through Owner) of the railroad or highway authority owning, or having jurisdiction over and control of, the right-of-way in each case.

10. OPERATION OF EXISTING FACILITIES. The existing water transmission and distribution system must be kept in continuous operation throughout the construction period. No interruption will be permitted which adversely affects the degree of service provided. Provided permission is obtained from Owner in advance, portions of the existing facilities may be taken out of service for short periods corresponding with

periods of minimum service demands. This may facilitate work at night or weekends which is considered incidental to the project.

Contractor shall provide temporary facilities and make temporary modifications as necessary to keep the existing facilities in operation during the construction period.

11. NOTICES TO OWNERS AND AUTHORITIES. Contractor shall, as provided in the General Conditions, notify owners of adjacent property and utilities when prosecution of the Work may affect them.

When it is necessary to temporarily deny access to property, or when any utility service connection must be interrupted, Contractor shall give notices sufficiently in advance to enable the affected persons to provide for their needs. Notices shall conform to any applicable local ordinance and, whether delivered orally or in writing, shall include appropriate information concerning the interruption and instructions on how to limit inconvenience caused thereby.

Utilities and other concerned agencies shall be notified at least 24 hours prior to cutting or closing streets or other traffic areas or excavating near underground utilities or pole lines.

12. LINES AND GRADES. All Work shall be done to the lines, grades, and elevations indicated on the Drawings.

Basic horizontal and vertical control points will be established or designated by Owner to be used as datums for the Work. All additional survey, layout, and measurement work shall be performed by Contractor as a part of the Work.

Contractor shall provide an experienced instrument person, competent assistants, and such instruments, tools, stakes, and other materials required to complete the survey, layout, and measurement work. In addition, Contractor shall furnish, without charge, competent persons and such tools, stakes, and other materials as Owner may require in establishing or designating control points, or in checking survey, layout, and measurement work performed by Contractor.

Contractor shall keep Owner informed, a reasonable time in advance, of the times and places at which it wishes to do Work, so that horizontal and vertical control points may be established and any checking deemed necessary by Owner may be done with minimum inconvenience to Owner and minimum delay to Contractor.

Contractor shall remove and reconstruct work which is improperly located.

13. CONNECTIONS TO EXISTING FACILITIES. Unless otherwise specified or indicated, Contractor shall make all necessary connections to existing facilities, including structures, drain lines, and utilities such as water, sewer, gas, telephone, and electric. In each case, Contractor shall receive permission from Owner or the owning utility prior to undertaking connections. Contractor shall protect facilities against deleterious substances and damage.

Connections to existing facilities which are in service shall be thoroughly planned in advance, and all required equipment, materials, and labor shall be on hand at the time of undertaking the connections. Work shall proceed continuously (around the clock) if necessary to complete connections in the minimum time. Operation of valves or other appurtenances on existing utilities, when required, shall be by or under the direct supervision of the owning utility.

14. UNFAVORABLE CONSTRUCTION CONDITIONS. During unfavorable weather, wet ground, or other unsuitable construction conditions, Contractor shall confine its operations to work which will not be affected adversely by such conditions. No portion of the Work shall be constructed under conditions which would affect adversely the quality or efficiency thereof, unless special means or precautions are taken by Contractor to perform the Work in a proper and satisfactory manner.

15. CUTTING AND PATCHING. As provided in General Conditions, Contractor shall perform all cutting and patching required for the Work and as may be necessary in connection with uncovering Work for inspection or for the correction of defective Work.

Contractor shall perform all cutting and patching required for and in connection with the Work, including but not limited to the following:

- Removal of improperly timed Work.
- Removal of samples of installed materials for testing.
- Alteration of existing facilities.
- Installation of new Work in existing facilities.

Contractor shall provide all shoring, bracing, supports, and protective devices necessary to safeguard all Work and existing facilities during cutting and patching operations. Contractor shall not undertake any cutting or demolition which may affect the structural stability of the Work or existing facilities without Owner's concurrence.

Materials shall be cut and removed to the extent indicated on the Drawings or as required to complete the Work. Materials shall be removed in a careful manner, with no damage to adjacent facilities or materials. Materials which are not salvable shall be removed from the site by Contractor.

All Work and existing facilities affected by cutting operations shall be restored with new materials, or with salvaged materials acceptable to Owner, to obtain a finished installation with the strength, appearance, and functional capacity required. If necessary, entire surfaces shall be patched and refinished.

16. ASBESTOS REMOVAL. If, during the progress of the Work, suspected asbestos-containing products are identified, Contractor shall stop work in the affected area and engage an asbestos removal Subcontractor to verify the materials and, if necessary, encapsulate, enclose, or remove and dispose of all asbestos in accordance with current regulations of the Environmental Protection Agency and the U. S. Department of Labor - Occupational Safety and Health Administration, the state asbestos regulating agency, and any local government agency. Payment for such work will be made by Change Order.

16.01. Subcontractor's Qualifications. The Subcontractor for asbestos removal shall be regularly engaged in this type of activity and shall be familiar with the regulations which govern this work. The Subcontractor shall demonstrate to the satisfaction of Owner that it has successfully completed at least three asbestos removal projects, that it has the necessary staff and equipment to perform the work, and that it has an approved site for disposal of the asbestos. The Subcontractor shall carry insurance as specified in the Supplementary Conditions.

16.02. Removal Methods. The asbestos removal Subcontractor shall submit a work plan of its proposed removal procedure to Owner before beginning work and shall certify that the methods are in full compliance with the governing regulations. The work plan shall cover all aspects of the removal, including health and safety of employees and building occupants, hygiene facilities, employee certification, clearance criteria, transportation and disposal, enclosure techniques, and other techniques appropriate for the proposed work.

17. CLEANING UP. Contractor shall keep the premises free at all times from accumulations of waste materials and rubbish. Contractor shall provide adequate trash receptacles about the site and shall promptly empty the containers when filled.

Construction materials, such as concrete forms and scaffolding, shall be neatly stacked by Contractor when not in use. Contractor shall promptly remove splattered concrete, asphalt, oil, paint, corrosive liquids, and cleaning solutions from surfaces to prevent marring or other damage.

Volatile wastes shall be properly stored in covered metal containers and removed daily.

Wastes shall not be buried or burned on the site or disposed of into storm drains, sanitary sewers, streams, or waterways. All wastes shall be removed from the site and disposed of in a manner complying with local ordinances and anti-pollution laws.

Adequate cleanup will be a condition for processing of progress payment applications.

18. APPLICABLE CODES. References in the Contract Documents to local codes mean the following:

- Kentucky Building Code
- Kentucky Plumbing Code
- National Electric Code
- BOCA Mechanical Code

Other standard codes which apply to the Work are designated in the Specifications.

19. PRECONSTRUCTION CONFERENCE. Prior to the commencement of Work at the site, a pre-construction conference will be held at a mutually agreed time and place. The conference shall be attended by:

- Contractor and its superintendent.
- Principal Subcontractors.
- Representatives of principal Suppliers and manufacturers as appropriate.
- Representatives of Owner.

Government representatives as appropriate.
Others as requested by Contractor or Owner.

Unless previously submitted to Owner, Contractor shall bring to the conference a preliminary schedule for each of the following:

- Progress.
- Procurement.
- Values for progress payment purposes.
- Shop Drawings and other submittals.

The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established. The agenda will include:

- Contractor's preliminary schedules.
- Transmittal, review, and distribution of Contractor's submittals.
- Processing Applications for Payment.
- Maintaining record documents.
- Critical Work sequencing.
- Field decisions and Change Orders.
- Use of premises, office and storage areas, security, housekeeping, and Owner's needs.
- Contractor's assignments for safety and first aid.

Owner will preside at the conference and will arrange for keeping the minutes and distributing the minutes to all persons in attendance.

20. PROGRESS MEETINGS. Contractor shall schedule and hold regular progress meetings at least monthly and at other times as requested by Owner or required by progress of the Work. Contractor, Owner, and all Subcontractors active on the site shall be represented at each meeting. Contractor may at its discretion request attendance by representatives of its Suppliers, manufacturers, and other Subcontractors.

Contractor shall preside at the meetings. Meeting minutes will be prepared and distributed by Contractor. The purpose of the meetings will be to review the progress of the Work, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop.

End of Section

Section 01025

MEASUREMENT AND PAYMENT

1. SCOPE. This section covers methods of measurement and payment for items of Work under this Contract.
2. GENERAL. The total Contract Price shall cover all Work required by the Contract Documents. All costs in connection with the proper and successful completion of the Work, including furnishing all materials, equipment, supplies, and appurtenances; providing all construction plant, equipment, and tools; and performing all necessary labor and supervision to fully complete the Work, shall be included in the unit and lump sum prices bid. All Work not specifically set forth as a pay item in the Bid Form shall be considered a subsidiary obligation of Contractor and all costs in connection therewith shall be included in the prices bid. The Contractor shall be responsible for supplying all project materials, except for items supplied by the Owner as indicated in the Bid Item Descriptions below and on the bid form.
3. ESTIMATED QUANTITIES. All estimated quantities stipulated in the Bid Form or other Contract Documents are approximate and are to be used only (a) as a basis for estimating the probable cost of the Work and (b) for the purpose of comparing the bids submitted for the Work. The actual amounts of work done and materials furnished under unit price items may differ from the estimated quantities. The basis of payment for work and materials will be the actual amount of work done and materials furnished. Contractor agrees that it will make no claim for damages, anticipated profits, or otherwise on account of any difference between the amounts of work actually performed and materials actually furnished and the estimated amounts therefor.
4. EXCAVATION AND TRENCHING. Except where otherwise specified, the unit or lump sum price bid for each item of Work, which involves excavation, or trenching shall include all costs for such Work. No direct payment shall be made for excavation or trenching. All excavation and trenching shall be unclassified as to materials, which may be encountered; in addition, trenches shall be unclassified as to depth.
5. BID PRICES TO INCLUDE INCIDENTAL WORK. The bid prices will cover and include the cost and expense of all contingents, accessories and incidental work and material required to complete the improvement. This includes replacement of services, pavement, fences and any other objects which are affected in the process of construction on this work. It shall also include where necessary, watchmen, flagmen, barricades, red lights, all backfill material such as gravel, flowable fill and any temporary restoration, construction joints, finishing and curing concrete, dust control, maintenance of traffic, maintenance of existing sewage flow, provision for access to property, and many other incidents which occur on a normal construction job.

DESCRIPTION OF BID ITEMS

NOTE: Descriptions of each material can be found in Section 01600 Technical Provisions

6. PIPELINES. Pipelines which are to be paid for on a unit price basis shall be measured for payment on a horizontal plane after installation of the pipe. Where lines are laid to conform

to stationed profiles, payment shall be made on linear quantities based on the pipeline stationing as determined by surveys made after installation.

The measurement of the length of each line or run of pipe of each size will begin and end at:

- a. The end of the pipe where connected to an existing pipe, fitting, or valve; or at the end of a dead-end run.
- b. The center lines intersection of the run and branch on tees, crosses, or laterals where a branch line connecting therewith is constructed under this Contract. Where a branch fitting is installed under this Contract, and the branch or connecting line is to be constructed by others at some future date or under another contract, the pay measurement will include the entire laying length of the branch or branches of such fitting.
- c. The measurement of each line of pipe of each size which is to be paid for on a unit price basis will be continuous through, and shall include the full laying lengths of, all fittings and valves installed between the ends of each line; except that the laying lengths of reducers and increasers will be divided equally between the connected pipe sizes. Connecting piping for fire hydrants will be paid under the unit price for fire hydrants.

6.01 CLASS 50 or 52 DUCTILE IRON PIPE (ALL SIZES). (Detail 103, 103a, 104, 104a, 110). Includes the specified pipe, polyethylene wrap, fittings, bends, tracing wire, excavation, labor, equipment, bedding, backfill disinfection, dechlorination, pressure testing, restoration of non-paved areas, etc. required to install the specified pipe at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid LINEAR FEET (LF).

6.02.A CLASS 50 or 52 DUCTILE IRON PIPE (ALL SIZES) – INTERNAL RESTRAINED JOINT. (Detail 103, 103a, 104, 104a, 110). Includes the specified pipe, polyethylene wrap, fittings, bends, tracing wire, excavation, labor, equipment, bedding, backfill, disinfection, dechlorination, pressure testing, restoration of non-paved areas, etc. required to install the specified pipe at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid LINEAR FEET (LF).

6.02.B CLASS 50 or 52 DUCTILE IRON PIPE (ALL SIZES) –RESTRAINED JOINT. (Detail 103, 103a, 104, 104a, 110). Includes the specified pipe, polyethylene wrap, fittings, bends, tracing wire, excavation, labor, equipment, bedding, backfill, disinfection, dechlorination, pressure testing, restoration of non-paved areas, etc. required to install the specified pipe at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Pipe gaskets shall develop a wedging action between pairs of high-strength stainless steel elements spaced around the gasket (Field Lok®, Fast-Grip® or approved equal gaskets). The bend shall be restrained using mechanical joint restraint devices consisting of multiple gripping wedges incorporated into a follower gland compatible with all mechanical joints (Megalug Series 1100®, MJ Field Lok® or approved equal) Paid LINEAR FEET (LF).

6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (ALL SIZES). (Detail 103, 103a, 104, 104a, 111). Includes the specified pipe, polyethylene wrap, fittings, bends, excavation, labor, equipment, bedding, backfill, disinfection, pressure testing, restoration of non-paved areas, tracing wire etc. required to install the specified pipe at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid LINEAR FEET (LF).

6.03B C-900, C-909 Poly Vinyl Chloride (PVC) (ALL SIZES) – RESTRAINED JOINT. (Detail 103, 103a, 104, 104a, 111). Includes the specified pipe, polyethylene wrap, fittings, bends, tracing wire, excavation, labor, equipment, bedding, backfill, disinfection, pressure testing, restoration of non-paved areas, etc. required to install the specified pipe at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Pipe push on joints shall be restrained using devices designed and approved by the AWWA for C900 or C909 PVC pipe (Megalug Series 1600®, Eagle Loc 900® or approved equal restraint systems). Transitional joints shall be restrained using mechanical joint restraint devices designed for PVC pipe and consisting of multiple gripping wedges incorporated into a follower gland compatible with all mechanical joints (Megalug Series 2000®, MJ Field Lok® PV Series or approved equal) Paid LINEAR FEET (LF).

6.04 CASING PIPE. Includes the casing pipe (K.D.O.T. or Railroad Spec.), labor, equipment, excavation, backfill, restoration, etc. required to install the casing pipe at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid LINEAR FEET (LF).

- a. Crossings. Where tunneling is required in connection with railroad, highway, or primary road crossings, each crossing shall be measured for payment horizontally along the longitudinal center line of the enclosing conduit or pipe installed therein, from end to end of the enclosing conduit, or from end to end of the tunnel excavation where an enclosing conduit is not required. Each designated type of crossing shall include the following:
- b. Crossings in Earth Backfill Tunnel. The unit price bid for each crossing in earth backfill tunnel shall include all costs in connection with excavation and backfilling, the excess cost of installing pipe in tunnel above the amount bid for the pipe laid in open trench, all skids, jointing materials, stabilized sand backfill, and all other work for and in connection with the crossing, not paid for separately. Separate payment shall not be made for tunnel liner or supports which may be needed for Contractor's convenience; all such items shall be considered a subsidiary obligation of Contractor.
- c. Crossings in Conduit. The unit price bid for each crossing in pipe conduit or tunnel liner shall include all costs in connection with excavation and backfilling, pipe conduit or tunnel liner, the excess cost of installing pipe in pipe conduit or tunnel liner above the amount bid for the pipe laid in open trench, all skids, jointing materials, jacking pipe, jacking pits, sand backfill, end closures, and all other work for and in connection with the crossing, not paid for separately.

6.05 CLASS 200 S.D.R. 9 HDPE (HIGH DENSITY POLY-ETHYLENE) PIPE (2"). (Detail 115). Includes the specified pipe, preparation of the host pipe, insertion of HDPE pipe into host pipe, fittings, bends, excavation, labor, equipment, bedding, backfill, disinfection, pressure testing, restoration of non-paved areas, tracing wire etc. District shall supply

service line tees, saddle, curb stop and straight coupling. Contractor is required to install the specified pipe at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid LINEAR FEET (LF).

6.06 PREFORMED PIPE INSULATION.

Includes all labor and material necessary to install preformed pipe insulation, wrapped with a double layer of polyvinyl tape on specified pipe. The preformed pipe insulation shall be Foam Glas (manufactured by Pittsburg Corning) or approved equal. Paid LINEAR FEET (LF).

Water Main Size	Insulation Thickness
4 inches to 8 inches	2 – ½ inches
10 inches to 16 inches	3 – ½ inches

7. Connections to Existing Water Mains. Connections to existing water mains will be paid for at the lump sum prices bid. Each lump sum price named for a connection shall include all costs incurred for making the connection over and above the price of the connecting piping in place. Each lump sum price shall include furnishing and installing the tapping sleeve and valve, fittings; all excavation, blocking and backfilling work; tapping of existing main; and all other costs not included under other bid items.

7.01 CONNECT TO EXISTING MAIN/TIE-IN (ALL SIZES). Includes all labor, equipment, excavation, specified pipe, fittings, sleeves, couplings, blocking, anchoring, polyethylene wrap, disinfection, pressure testing, backfill and restoration, and any pipe required to make the connection as shown on the plans, and in accordance with the specifications. Paid EACH (EA).

7.02 TAPPING SLEEVE & VALVE (ALL SIZES) Includes the District approved tapping sleeve and valve, polyethylene wrap, labor, equipment, excavation, blocking, anchoring, disinfection, backfill, restoration, etc. to install the specified fitting at the locations shown on the plans in accordance with the specifications and standard drawing complete and ready for use. Paid EACH (EA) when complete.

8. Fire Hydrants. Fire hydrants will be paid for at the unit price bid. The unit price named for each fire hydrant installation shall include all costs incurred in furnishing and installing the fire hydrant; auxiliary gate valve, all connecting piping to the adjacent water main, accessories, and appurtenances, concrete blocking behind and under the fire hydrant, drainage facilities, yard restoration and all other costs not included under other bid items.

8.01 INSTALL FIRE HYDRANT ASSEMBLY. (Detail 109). Includes all labor, equipment, excavation, concrete blocking, 6" Ductile Iron Resilient Seated Gate Valve, Valve box, 6" Ductile Iron Anchor Coupling, 6" ductile iron leads (restrained) Fire Hydrant, extensions, granular drainage material, backfill and yard restoration to install fire hydrant complete and in accordance with the specifications and standard drawings. Paid EACH (EA).

8.02 INSTALL FUTURE FIRE HYDRANT VALVE. (Detail 109). Includes all labor, equipment, excavation, 6" Ductile Iron Resilient Seated Gate Valve, Valve box, Plug,

backfill and yard restoration to install future fire hydrant assembly complete and in accordance with the specifications and standard drawings. Paid EACH (EA).

8.03 REMOVE FIRE HYDRANT. Includes all labor, equipment, excavation, backfill and yard restoration to remove an existing fire hydrant, cap hydrant lead if necessary and return to the Northern Kentucky Water District warehouse. Paid EACH (EA).

8.04 RELOCATE FIRE HYDRANT. Includes allowing for Northern Kentucky Water District's Inspector to inspect the existing fire hydrant prior to reuse, returning unusable fire hydrants to the Northern Kentucky Water District Warehouse and picking up a replacement hydrant for use. Includes the labor, equipment, excavation, bedding, backfill, testing, disinfection, and yard restoration to relocate existing fire hydrant to valve, pipe, and anchoring tee as indicated on plans and on standard drawings contained in the plans. The pipe, valve and anchoring tee shall be paid under separate bid items when required. The Contractor to supply and install all anchoring devices, fire hydrant extensions, 6" ductile iron leads (restrained), concrete blocking, yard restoration, granular drainage material, etc, needed to install the fire hydrant complete and ready for use as shown on the plans, and in accordance with the specifications and standard drawings. Paid EACH (EA).

8.05 ADJUST FIRE HYDRANT TO GRADE. Includes the labor, equipment, excavation, bedding, backfill, testing, disinfection, and yard restoration to adjust the existing fire hydrant using the fire hydrant manufacturer's extension kit for adjustments of 18" or less. Adjustments greater than 18" require anchoring couplings and vertical bends to adjust to grade. The Contractor will supply and install all anchor couplings, bends, fire hydrant extension, concrete blocking, yard restoration, granular drainage material, etc, needed to adjust the fire hydrant complete and ready for use as shown on the plans, and in accordance with the specifications and standard drawings. Paid EACH (EA).

9. Valves. Sectionalizing valves in water mains will be paid for at the unit price bid for each size. The unit price shall include all costs incurred in completing the sectionalizing valve installation over and above the amount paid for piping in place. The unit price shall include furnishing and installing the sectionalizing valve, valve box, and appurtenances; excavation and backfill not included under piping; and all other costs not included under other bid items.

No separate payment will be made for fire hydrant auxiliary gate valves or tapping valves.

9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (4", 6", 8", 12"). (Detail 105). Includes the specified valve, labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. (contractor must supply mechanical joint restraints on restrained joint applications), required to install the specified valve at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. All External Dome and Packing Bolts Shall be Stainless Steel. Paid EACH (EA).

9.02 BUTTERFLY VALVE (16" AND LARGER). Includes the labor, equipment, valve and appurtenances, material, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. (contractor must supply mechanical joint restraints on restrained joint applications), required to install the specified valve at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid EACH (EA).

9.03 DUCTILE IRON RESILIENT WEDGE GATE VALVE WITH BEVELED GEARING.

Ductile iron body, non-rising stem, open left, 2" square operating nut, epoxy coated, mechanical joint, inlet and outlet connections, O-ring type packing, resilient wedge, 250 PSI working pressure, and conforming in all other ways to AWWA Standard C515 American Flow Control 2500 Resilient Wedge Gate Valve or approved equal. Valve body to be assembled with stainless steel bolts grade 304 or better. Accessory package (glands, gaskets and bolts) shall not be included. Includes the specified valve, labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. (contractor must supply mechanical joint restraints on restrained joint applications), required to install the specified valve at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. All External Dome and Packing Bolts Shall be Stainless Steel. Paid EACH (EA).

10. SERVICES

10.01 REPLACE and RECONNECT SERVICE LINE (3/4" THRU 2"). Includes the labor, equipment, excavation, bedding, backfill, and asphalt, concrete and yard restoration to install the service line at the locations shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready for use. Lead service lines encountered by the excavation shall be replaced from the main to and including the meter vault and meter setting. All service line material will be supplied by NKWD. Paid EACH (EA).

10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4" THRU 2"). Includes the labor, equipment, excavation, bedding, backfill, and asphalt, concrete and yard restoration to install the service line, new meter vault and yoke setting at the locations shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready for use. All service line material will be supplied by NKWD. Paid EACH (EA).

10.03 RECONNECT COPPER SERVICE (3/4" THRU 2"). Includes the labor, equipment, excavation, bedding, backfill and asphalt, concrete and yard restoration to reconnect the service line at the locations shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready for use. Lead service lines encountered by the excavation shall be replaced from the main to and including the meter vault and meter setting. All service line material will be supplied by NKWD. Paid EACH (EA).

10.04 RELOCATE WATER METER SETTING. Includes the labor, equipment, excavation, bedding, backfill and asphalt, concrete and yard restoration to install a new meter vault and yoke setting to the location shown on the plans or as directed, in accordance with the specifications and standard drawings complete and ready for use. All service line material will be supplied by NKWD. Paid EACH (EA).

10.05 INSTALL WATER METER SETTING. Includes the labor, equipment, excavation, bedding, backfill, testing, disinfection and asphalt, concrete and yard restoration to install a new meter vault and yoke setting to the location shown on the plans or as directed, in accordance with the specifications and standard drawings complete and ready for use. All service line material will be supplied by NKWD. Paid EACH (EA).

10.06 ADJUST EXISTING WATER VALVE BOX TO GRADE. Includes all labor, equipment, excavation, bedding, 2'x2'x4" concrete pad, backfill, testing, disinfection, and asphalt, concrete and yard restoration to install the valve box and valve toggle extensions (if required) and adjust the top of the box to finished grade complete and ready for use. Valve toggle extensions will be supplied by NKWD. Paid EACH (EA).

10.07 ADJUST WATER METER TO GRADE. Includes all labor, equipment, excavation, bedding, backfill, testing, disinfection, and asphalt, concrete and yard restoration to adjust the top of the box to finished grade complete and ready for use. Paid EACH (EA).

10.08 REMOVE EXISTING CURB STOP/METER CROCK. Includes the labor, equipment, excavation, backfill and asphalt, concrete or yard restoration to remove the existing curb stop or meter crock at the location shown on the plans or as directed, in accordance with the specifications and standard drawings. Paid EACH (EA).

10.09 INSTALL TEMPORARY WATER SERVICE. Includes the labor, equipment and materials for the installation and disinfection of temporary piping, flushing of temporary piping, removal of the existing meter and returning meter to the Owner, hooking up temporary water to meter setting, maintaining an uninterrupted water supply, repairs to any damaged or broken piping, installation of meter and removal of all piping and fittings upon completion of the work, Paid LUMP SUM (LS).

10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT.

This item covers the replacement of the privately-owned portion of the service line from the existing curb stop / meter to the building. Performance of private side lead service line replacement (PSLSLR) is contingent upon NKWD reaching agreements with individual property owners prior to performing the work. If no agreement is made, the contractor shall perform the public side work according to the plans and will be compensated for this work via the public side bid items. No compensation will be provided for elimination of the PSLSLR bid items. If a PSLSLR agreement is made, the contractor shall coordinate with NKWD inspection to determine final meter locations and any resulting changes in materials.

A bid item at the listed address is indication that NKWD records show that the private portion of the service line contains lead, which may be different than the public side. The intent of the design is to install one continuous service line from the building to the new meter located within public right-of-way, to the extent possible.

This work shall be performed by a State of Kentucky licensed plumber, or under the direction thereof. The contractor must furnish all labor, equipment, materials, excavation, bedding, backfill, best management practices, safety devices, plumbing permits, coring and sealing of the foundation for the new service line penetration into the building, connections to the existing plumbing, removal of any piping within the building made obsolete by the new service connection, capping and properly abandoning the existing service line penetration into the building, pavement/yard restoration, and all other related items required to complete PSLSLR. All work shall be installed according to the Kentucky State Plumbing Code, and notes provided below. Payment is full compensation for all work involved in the PSLSLR, and restoration of private property as described below. Contractor shall be responsible for the following:

- Prior to commencing the work, the plumber shall inspect the existing private service line at the curb stop and the meter. If the plumber determines that the existing service line is copper at both locations, the plumber shall contact the NKWD inspector, and if confirmed by NKWD, the work shall terminate. If NKWD and plumber determines that the existing service line is lead, brass, galvanized steel or other non-lead-free material, the plumber shall continue with the replacement work.
- Utilize trenchless construction methods (i.e. cable pulling method or piercing/missile method) whenever possible to install the new copper service line. If trenchless construction methods are not possible, then an open cut trench method may be performed.
- Limit the area of disturbance on private property to the minimal amount as practical for any construction method used.
- Install new type-k copper service line, various sizes, from the curb stop/meter to approximately 6-inches beyond the first interior valve inside the building (or, if interior meter exists, to the outlet valve of the meter setting in the building).
- If interior meter exists, install a new exterior meter setting with a temporary straight piece of pipe according to NKWD rules and regulations. NKWD will provide all materials for new meter settings to the contractor. NKWD will set the meter and reading device and remove the existing inside meter.
- If an interior electrical grounding system is attached to the lead service line being replaced, temporarily remove the system and reinstall as required upon completion of work.
- Patch any hole in the foundation, floor or wall that was required to install the new copper service line.
- Backfill all excavations on private property with excavated spoils and include no less than 6-inches of topsoil.
- Seed and straw all impacted lawn areas during the growing season.
- Restore any hard-paved surface in kind to the nearest construction joint.
- Call Kentucky 811 and any other applicable utility locate call centers at least 48-hours before any excavation is performed. The contractor shall be responsible to locate all utilities within the proposed work area on the private property side of the PSLSLR. This includes the responsibility to hire a 3rd party utility locator as required. Any hit lines shall be the responsibility of the contractor to repair or replace (at its cost) in compliance with utility requirements.
- Post any "no parking" signage that will be necessary to perform the work.
- Perform all work in a manner which will prevent water service outages longer than 8-hours. If water service outage exceeds 8 hours, the contractor must temporarily return water service to the property until the next day. Any arrangement to provide temporary service to a property must be approved by NKWD.
- The contractor will not be responsible for removing or replacing any exterior obstacles, such as walls, fences, sculptures, ornaments, or furniture. These obstacles will be the responsibility of the property owners unless otherwise agreed upon by the property owner and NKWD to have the contractor perform this work. Additional costs for removal and replacement of these obstacles by the contractor will be negotiated by NKWD as a change order to this work.
- The contractor will not be responsible for removing or replacing any interior obstacles, such as furniture, drywall, paneling, storage items, etc. These obstacles will be the responsibility of the property owner unless otherwise agreed upon by the property owner and NKWD to have the contractor perform this work. Additional costs for

removal and replacement of these obstacles by the contractor will be negotiated by NKWD as a change order to this work.

- Coordination of this work with the property owners will be performed by the contractor. The contractor shall not discuss cost issues with the property owner directly, unless specifically permitted by the NKWD inspector. NKWD shall retain the right to be present for all site discussions between the contractor and the property owner.

10.10B PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT – Pressure Regulator & Expansion Tank Additive. If the Plumbing Code / the Plumbing Inspector requires a new pressure regulator and expansion tank as a result of the work performed under item 10.10 Private Side Lead Service Line Replacement, this item covers all labor, equipment, and materials to include a new pressure regulator and expansion tank as part of the service line replacement. This item can be applied to any Private Side Lead Service Line Replacement as it is not known which services will involve this requirement. Paid EACH (EA).

11. MISCELLANEOUS

11.01 CONCRETE ENCASEMENT. Includes the labor, equipment, excavation, backfill, concrete, restoration, etc. to construct the concrete encasement of the water main stream crossing as shown on the plans, and in accordance with the specifications and standard drawings. Paid LINEAR FEET (LF).

11.02 4" UNDERDRAIN. Includes the labor, equipment, excavation, bedding, materials, backfill, and restoration, etc.-required to install the underdrain at the location shown on the plans in accordance with the specifications and standard drawings complete and ready for use. Paid EACH (EA).

11.03 PRESSURE REDUCING VALVE PIT. Includes the labor, equipment, excavation, concrete pit construction, materials, pipe work, electrical work, backfill, restoration, etc. required to install the specified pressure reducing valve pit at the location shown on the plans in accordance with the plans, specifications and standard drawings complete and ready for use. Paid EACH (EA).

11.04 PLUG AND BLOCK (ALL SIZES). This item shall include the specified plug, polyethylene wrap, labor, equipment, excavation, concrete, backfill and restoration required to install the plug and blocking at the location shown on the plans or as directed in accordance with the specifications. Paid EACH (EA).

11.05 AIR RELEASE VALVE. (Detail 106). This item shall include labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. required to install the air release valve at the location shown on the plans or as directed in accordance with the specifications. All materials will be supplied by NKWD. Paid EACH (EA).

11.06 ANCHORING TEE AND BLOCK (ALL SIZES). Includes the specified anchoring tee, labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. required to install the specified anchoring tee at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid EACH (EA).

11.07 DUCTILE IRON TEE AND BLOCK (ALL SIZES). Includes the specified ductile iron tee, labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. required to install the specified tee at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid EACH (EA).

11.08 DUCTILE IRON CROSS (ALL SIZES). Includes the specified ductile iron cross, labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. required to install the specified ductile iron cross at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid EACH (EA).

11.09 REDUCER (ALL SIZES). Includes the reducer, labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. required to install the specified reducer at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid EACH (EA).

11.10 FLUSHING DEVICE. (Detail 113) Includes the labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. required to install the specified flushing device at the location shown on the plans in accordance with the specifications and standard drawings complete and ready for use. Flushing device materials will be supplied by NKWD. Paid EACH (EA).

11.11 TEST TAP. Includes the labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc.-required to install the specified test tap at the location shown on the plans in accordance with the specifications and standard drawings complete and ready for use. Test Tap materials will be supplied by NKWD. Paid EACH (EA).

11.12 STORM SEWER CONNECTION. Includes all labor, equipment, excavation, bedding, backfill and materials required to make the connection to the existing combination manhole as shown on the plans and in accordance with the specifications of KYTC and Sanitation District No. 1. Paid EACH (EA).

11.13 REMOVE EXISTING CATCH BASIN & RECONSTRUCT NEW DOUBLE CURB BOX INLET. Includes all labor, equipment, excavation, backfill and materials to remove an existing catch basin, dispose of existing catch basin in a proper manner in accordance with all applicable local, state, or federal regulations and installation of a Standard Double Curb Box Inlet as per the detail in the construction drawings. All work shall also be in accordance with the specifications of KYTC and Sanitation District No. 1. Paid EACH (EA)

11.14 REMOVE EXISTING STORM PIPE & CONSTRUCT HDPE STORM PIPE. Includes all labor, equipment, excavation, bedding, backfill and materials to remove the existing storm sewer pipe and install new HDPE storm pipe as per plan. All debris materials shall be disposed of in a proper manner and shall be as directed by all applicable local, state, or federal regulations. Installation of new HDPE storm pipe shall be in accordance with the Storm Sewer Pipe Bedding – Flexible Pipe (Plastic) detail on

the construction drawings. All work shall also be in accordance with the specifications of KYTC and Sanitation District No. 1. Paid LINEAR FOOT (LF)

11.15 SLEEVE OUT EXISTING TEE/CROSS/VALVE. Includes all labor, equipment, excavation, specified pipe, fittings, couplings, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. required to remove the existing tee/cross/valve and install a straight pipe at the location shown on the plans or as directed in accordance with the specifications. Paid EACH (EA).

11.16 CORROSION TEST STATION. Includes the labor, equipment and materials required to place test stations, and electrodes, in accordance with specifications and details. Paid EACH (EA).

11.17 MAGNESIUM ANODES. Includes the labor, equipment and materials required to place magnesium anodes and associated wiring, in accordance with specifications and details. Paid EACH (EA).

11.18 PROVIDE AND MAINTAIN TEMPORARY WATER SERVICE. Includes all labor, equipment, and material for providing temporary water service to District customers during water main replacement on the 880 block of Roberts Street. This shall include the installation, disinfection and flushing of temporary piping, removal of the existing meter and returning meter to the District, connecting temporary water piping to meter setting, maintaining an uninterrupted water supply, repairing any damaged or broken piping, installing new meter after water main is placed back into service, and removal of all temporary piping and fittings upon completion of the work. Paid LUMP SUM (LS).

12. RESTORATION

12.01. Pavement Removal and Replacement. The unit prices per square yard for pavement removal and replacement shall be measured for (length x width) payment horizontally along the center line of the pipe, through manholes, and to the edge of the existing pavement; or, where the edge of the existing pavement is not clearly defined, to the edge of the pavement replacement. The unit prices bid for pavement removal and replacement shall include all costs in connection therewith, including cutting, removal, and disposal of old pavement; construction of new pavement; and all extra compaction effort required for backfill beneath pavement.

12.02 Miscellaneous Asphaltic Concrete Paving. Existing valve boxes shall be abandoned by removal or filling with concrete at the discretion of the District. This cost shall be incidental to any bid item associated with asphaltic concrete paving.

12.03. Sidewalk or Driveway Removal and Replacement. The unit prices per square yard bid for sidewalk or driveway removal and replacement shall include all costs involved in cutting and removing sidewalk or driveway, and all labor and materials required to replace the sidewalks.

Measurement for payment for sidewalk or driveway removal and replacement shall be on a square yard basis and shall include only the area actually removed and replaced, between joints, over the pipeline trench.

All costs involved in repairing or removal and replacement of existing sidewalk or driveway outside the specified pay limits, where damaged during the construction operations, shall be considered a subsidiary obligation of Contractor and shall be borne by Contractor.

12.04. MISCELLANEOUS CONCRETE. Concrete for encasement or blocking of pipe and fittings not included as parts of pipelines will be measured for payment as the actual volume of concrete placed within the limits as indicated or specified.

Concrete for total encasement shall be computed using the maximum allowable trench width (or pipe OD plus 24 inches where no maximum is specified), the minimum clear depth below the pipe, and the minimum cover over the pipe, less the volume occupied by the pipe itself.

Unless otherwise authorized by Owner, all additional concrete for encasement or blocking required outside the specified pay limits will be considered a subsidiary obligation of Contractor and no direct payment shall be made therefore.

All concrete which is required in connection with manholes or structures, pavement or sidewalk replacement, and other pay items shall be included in the lump sum or unit price bid for the pay item.

The unit price bid for miscellaneous concrete shall include concrete, reinforcing steel, forms, finishing, curing, and all other work or materials required to complete the concrete work.

Existing valve boxes shall be abandoned by removal or filling with concrete at the discretion of the District. This cost shall be incidental to any bid item associated with concrete paving or other concrete work.

12.05 ASPHALTIC CONCRETE MILLING AND PAVING. Includes the labor, equipment and materials required to perform any necessary milling, placing of asphalt to a depth of 1.5 inches in accordance with specifications and standard drawing #103A. Paid SQUARE YARD (SY).

12.06 ASPHALTIC CONCRETE. Includes the labor, equipment and materials required to perform any necessary removal and replacement of asphalt to a minimum depth of 8 inches or match existing depth (whichever is greater) and abandoning of valve boxes in accordance with specifications and standard drawing #103A. Paid SQUARE YARD (SY).

12.07 ASPHALTIC CONCRETE - DRIVEWAY. Includes the labor, equipment and materials required to perform any necessary removal and replacement of asphalt to a minimum depth of 6 inches or match existing depth (whichever is greater) in accordance with specifications and standard drawing #103A. Culvert repair or replacement shall be considered incidental to driveway restoration. Paid SQUARE YARD (SY).

12.08 ASPHALTIC CONCRETE. – WINTER CHARGE In effect when a sole asphalt plant is operating within a 50 mile radius of the project. Includes the labor, equipment and materials required to perform any necessary removal and replacement of asphalt to a minimum depth of 6 inches or match existing (whichever is greater) and abandoning of valve boxes in accordance with specifications and standard drawing #103A. Paid SQUARE YARD (SY).

12.09 CONCRETE PAVEMENT. Includes the labor, equipment and materials required to remove and replace a minimum of 8" KDOT class A Concrete or to match existing depth (whichever is greater), and abandoning of valve boxes in accordance with specifications and standard drawing #103A. Paid SQUARE YARD (SY).

12.10 CONCRETE DRIVEWAY. Includes the labor, equipment and materials required to remove and replace the driveway concrete to a minimum depth of 6 inches or match existing depth (whichever is greater). Culvert repair or replacement shall be considered incidental to driveway restoration. Paid SQUARE YARD (SY).

12.11 CONCRETE CURBING. Includes the labor, equipment and materials required to place KDOT class A Concrete to match existing in accordance with specifications and standard drawings. Paid LINEAR FEET (LF).

12.12 CONCRETE SIDEWALK. Includes the labor, equipment and materials required to remove and replace the sidewalk concrete to match existing depth. This item also includes any requirements to install sidewalk ramps per ADA standards. Paid SQUARE YARD (SY).

12.13 GRAVEL DRIVEWAY/PARKING AREA. Includes the labor, equipment and materials required to replace and grade gravel driveway to match existing depth. Paid SQUARE YARD (SY).

12.14 BEST MANAGEMENT PRACTICE. Includes the labor, equipment and materials required to conform and comply with the best management practices to control soil erosion as shown on the plans and specifications. Paid LUMP SUM (LS).

12.15 BRICK PAVER RESTORATION. Includes the labor, equipment and materials required to remove the existing roadway material, salvage the existing brick pavers for reuse, install crusher run base (DGA) 7"-10" thick and compacted every 2", place a 1" compacted sand bedding, reset brick pavers, apply sand to joints and compact to match existing brick pavers. Brick pavers damaged or missing at no fault to the contractor will be supplied by the City to replace pavers which were. All other brick pavers shall be provided by the contractor to the satisfaction of the City of Newport. Paid SQUARE FOOT (SF).

End of Section

SECTION 01070

ABBREVIATIONS OF TERMS AND ORGANIZATIONS

1. LIST OF ABBREVIATIONS. Reference to standards and organizations in the Specifications shall be by the following abbreviated letter designations:

AA	Aluminum Association
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ACPA	American Concrete Pipe Association
AFBMA	Antifriction Bearing Manufacturers Association
AGA	American Gas Association
AGMA	American Gear Manufacturers Association
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
APA	American Plywood Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASSE	American Society of Sanitary Engineers
ASTM	American Society for Testing and Materials
AWG	American Wire Gage
AWPA	American Wood-Preservers' Association
AWPB	American Wood Preservers Bureau
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders Hardware Manufacturers Association
CDA	Copper Development Association
CISPI	Cast Iron Soil Pipe Institute
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard (U.S. Department of Commerce)
DIPRA	Ductile Iron Pipe Research Association
EEI	Edison Electric Institute
EJCDC	Engineers' Joint Contract Documents Committee
EPA	Environmental Protection Agency
Fed Spec	Federal Specification
FHWA	Federal Highway Administration

FIA	Factory Insurance Association
FM	Factory Mutual
IEEE	Institute of Electrical and Electronics Engineers
IFI	Industrial Fasteners Institute
IRI	Industrial Risk Insurers
MIL	Military Specification
MSS	Manufacturers Standardization Society of Valve and Fitting Industry
NBS	National Bureau of Standards
NCSPA	National Corrugated Steel Pipe Association
NEC	National Electrical Code
NECA	National Electrical Contractors Association
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NIST	National Institute of Standards and Technology
NPC	National Plumbing Code
NPT	National Pipe Thread
NRMCA	National Ready Mixed Concrete Association
NSC	National Safety Council
NSF	National Sanitation Foundation
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PCI	Prestressed Concrete Institute
PS	Product Standard
SAE	Society of Automotive Engineers
SI	Système International des Unités (International System of Units)
SPFA	Steel Plate Fabricators Association
SSI	Scaffolding and Shoring Institute
SSPC	Steel Structures Painting Council
UL	Underwriters' Laboratories

End of Section

Section 01300

SUBMITTALS

1. PROGRESS SCHEDULE. After the preconstruction conference and before Work is started, Contractor shall submit to Owner for review a schedule of the proposed construction operations. Owner shall cooperate with Contractor in arrangements for continuity of service and operation of valves and other control facilities. The progress schedule shall indicate the sequence of the Work, the time of starting and completion of each part, and the time for making connections to existing piping, structures, or facilities.

2. PROGRESS REPORTS. A progress report shall be furnished to Owner with each Application for Payment. If the Work falls behind schedule, Contractor shall submit additional progress reports at such intervals as Owner may request.

Each progress report shall include sufficient narrative to describe current and anticipated delaying factors, their effect on the progress schedule, and proposed corrective actions.

Any Work reported complete, but which is not readily apparent to Owner, must be substantiated with satisfactory evidence.

3. SURVEY DATA. All field books, notes, and other data developed by Contractor in performing surveys required as part of the Work shall be available to Owner for examination throughout the construction period. All such data shall be submitted to Owner with the other documentation required for final acceptance of the Work.

4. SHOP DRAWINGS AND ENGINEERING DATA.

4.01. General. Shop Drawings and engineering data (submittals) covering all equipment and fabricated and building materials which will become a permanent part of the Work under this Contract shall be submitted to Owner, at the Owner's address given in the Agreement. Submittals shall verify compliance with the Contract Documents, and shall include drawings and descriptive information in sufficient detail to show the kind, size, arrangement, and operation of component materials and devices; the external connections, anchorages, and supports required; performance characteristics; and dimensions needed for installation and correlation with other materials and equipment. When an item consists of components from several sources, Contractor shall submit a complete initial submittal including all components.

All submittals, regardless of origin, shall be stamped with the approval of Contractor and identified with the name and number of this Contract, Contractor's name, and references to applicable specification paragraphs and Contract Drawings. Each submittal shall indicate the intended use of the item in the Work. When catalog pages are submitted, applicable items shall be clearly identified and inapplicable data crossed out. The current revision, issue number, and date shall be indicated on all drawings and other descriptive data.

Contractor shall be solely responsible for the completeness of each submission. Contractor's stamp of approval is a representation to Owner that Contractor accepts sole responsibility for determining and verifying all quantities, dimensions, field construction

criteria, materials, catalog numbers, and similar data, and that Contractor has reviewed and coordinated each submittal with the requirements of the Work and the Contract Documents.

All deviations from the Contract Documents shall be identified as deviations on each submittal and shall be tabulated in Contractor's letter of transmittal. Such submittals shall, as pertinent to the deviation, indicate essential details of all changes proposed by Contractor.

One copy of each drawing and necessary data shall be submitted to Owner for its record. The Owner intends to use this for information only. If requested by Contractor, up to three additional copies may be submitted for review and approval by Owner. Owner will return marked copies (or one marked reproducible copy) to Contractor. Owner will not accept submittals from anyone but Contractor. Submittals shall be consecutively numbered in direct sequence of submittal and without division by subcontracts or trades.

4.02. Owner's Review of Submittals. Owner's review of submittals will cover only general conformity to the Drawings and Specifications, external connections, and dimensions which affect the layout. Owner's review does not indicate a thorough review of all dimensions, quantities, and details of the material, equipment, device, or item shown. Owner's review shall not relieve Contractor of Contractor's sole responsibility for errors, omissions, or deviations in the drawings and data, nor of Contractor's sole responsibility for compliance with the Contract Documents.

If Contractor requests a review and response, Owner's submittal review period shall be 14 consecutive calendar days in length and shall commence on the first calendar day immediately following the date of arrival of the submittal or resubmittal in Owner's office. The time required to mail the submittal or resubmittal back to Contractor shall not be considered a part of the submittal review period.

When the drawings and data are returned marked "NOT ACCEPTABLE" or "RETURNED FOR CORRECTION", the corrections shall be made as noted thereon and as instructed by Owner and corrected copies (or one corrected reproducible copy) resubmitted.

When the drawings and data are returned marked "EXCEPTIONS NOTED", "NO EXCEPTIONS NOTED", or "RECORD COPY", no additional copies need be furnished unless requested by Owner at time of review.

4.03. Resubmittal of Drawings and Data. Contractor shall accept full responsibility for the completeness of each resubmittal. Contractor shall verify that all corrected data and additional information previously requested by Owner are provided on the resubmittal.

When corrected copies are resubmitted, Contractor shall in writing direct specific attention to all revisions and shall list separately any revisions made other than those called for by Owner on previous submissions.

Requirements specified for initial submittals shall also apply to resubmittals. Resubmittals shall bear the number of the first submittal followed by a letter (A, B, etc.) to indicate the sequence of the resubmittal.

Re-submittals shall be made within 30 days of the date of the letter returning the material to be modified or corrected, unless within 14 days Contractor submits an acceptable request for an extension of the stipulated time period, listing the reasons the resubmittal cannot be completed within that time.

Any need for more than one resubmission, or any other delay in obtaining Owner's review of submittals, will not entitle Contractor to extension of the Contract Times unless delay of the Work is directly caused by a change in the Work authorized by a Change Order.

End of Section

Section 01400

QUALITY CONTROL

1. TESTING SERVICES. All tests to determine compliance with the Contract Documents shall be performed by an independent commercial testing firm acceptable to Owner. The testing firm's laboratory shall be staffed with experienced technicians, properly equipped and fully qualified to perform the tests in accordance with the specified standards.

Testing services provided by Owner are for the sole benefit of Owner; however, test results shall be available to Contractor. Testing necessary to satisfy Contractor's internal quality control procedures shall be the sole responsibility of Contractor.

1.01. Testing Services Furnished by Contractor. Unless otherwise specified, Contractor shall provide all testing services in connection with the following:

Concrete materials and mix designs.

Asphaltic concrete materials and mix designs.

Embedment, fill and backfill materials.

All other tests and engineering data required for Owner's review of materials and equipment proposed to be used in the Work.

Contractor shall obtain Owner's acceptance of the testing firm before having services performed, and shall pay all costs for these testing services.

1.02. Testing Services Furnished by Owner. Unless otherwise specified, Owner shall provide for tests made on the following materials and equipment:

Concrete.

Asphaltic concrete.

Moisture-density and relative density tests on embedment, fill, and backfill materials.

In-place field density tests on embedments, fills, and backfill.

Other materials and equipment at the discretion of Owner.

Testing, including sampling, will be performed by Owner or the testing firm's laboratory personnel, in the general manner indicated in the Specifications. Owner shall determine the exact time, location, and number of tests, including samples.

Arrangements for delivery of samples and test specimens to the testing firm's laboratory will be made by Owner. The testing firm's laboratory shall perform all laboratory tests within a reasonable time consistent with the specified standards and shall furnish a written report of each test.

Contractor shall furnish all sample materials and cooperate in the testing activities, including sampling. Contractor shall interrupt the Work when necessary to allow testing, including sampling, to be performed. Contractor shall have no claim for an increase in Contract Price or Contract Times due to such interruption. When testing activities,

including sampling, are performed in the field by Owner or the testing firm's laboratory personnel, Contractor shall furnish personnel and facilities to assist in the activities.

If testing shows workmanship and/or materials does not meet established requirements, the Contractor shall be responsible for all additional testing cost to ensure compliance.

1.03. Transmittal of Test Reports. Written reports of tests and engineering data furnished by Contractor for Owner's review of materials and equipment proposed to be used in the Work shall be submitted as specified for Shop Drawings.

End of Section

TEMPORARY FACILITIES

1. PRESENCE IN THE AREA. The Contractor understands and agrees that during the performance of the Contract, it shall maintain a presence within such proximity of the Work Site which will allow it to respond to an emergency at the Work Site within one hour of receiving notice of an emergency, including emergencies occurring during non-working hours. The Contractor shall provide a list of emergency phone numbers for such purposes.

If the Contractor does not have such a presence, it may satisfy this requirement by sub-contracting with a sub-contractor that does have such a presence, provided that any such sub-contractor must be approved by the Owner, in its sole discretion, prior to the project pre-construction meeting.

2. WATER. Water in reasonable amounts required for and in connection with the Work to be performed will be furnished at existing fire hydrants by Owner without charge to Contractor. All water used in testing and disinfection of mains will be furnished by the Owner for the first test only. Contractor shall furnish necessary pipe, hose, nozzles, and tools and shall perform all necessary labor. Contractor shall make arrangements with Owner (who will fix the time, rate, and duration of each withdrawal from the distribution system) as to the amount of water required and the time when the water will be needed. Unnecessary waste of water will not be tolerated. Special hydrant wrenches shall be used for opening and closing fire hydrants. In no case shall pipe wrenches be used for this purpose.

3. POWER. Contractor shall provide all power for heating, lighting, operation of Contractor's plant or equipment, or for any other use by Contractor.

4. TELEPHONE SERVICE. Contractor shall make all necessary arrangements and pay all installation charges for telephone lines in its offices at the Site and shall provide all telephone instruments.

5. SANITARY FACILITIES. Contractor shall furnish temporary sanitary facilities at the Site, as provided herein, for the needs of all construction workers and others performing work or furnishing services on the Project.

Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet will be furnished for each 20 persons. Contractor shall enforce the use of such sanitary facilities by all personnel at the Site.

6. MAINTENANCE OF TRAFFIC. Contractor shall conduct his work to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross, obstruct, or close roads, driveways, and walks, whether public or private, Contractor shall provide and maintain suitable and safe bridges, detours, or other temporary expedients for the accommodation of public and private travel, and shall give reasonable notice to owners of private drives before interfering with them. Such maintenance of traffic will not be required when Contractor has obtained permission from the owner and tenant of

private property, or from the authority having jurisdiction over public property involved, to obstruct traffic at the designated point.

In making open cut street crossings, Contractor shall not block more than one-half of the street at a time. Whenever possible, Contractor shall widen the shoulder on the opposite side to facilitate traffic flow. Temporary surfacing shall be provided as necessary on shoulders.

The Contractor shall wherever necessary or as required by the Owner or the authority having jurisdiction provide, erect and maintain proper lights, signs, barricades, temporary guardrail, other traffic control devices, and furnish watchmen and flagmen as may be necessary to maintain safe traffic conditions in accordance with the Manual of Uniform Traffic Control Devices. Contractor shall use standard signage found in the latest edition of the Federal Highway Administration's "Standard Highway Signs and Markings" manual.

The Contractor shall be liable for and hold the Owner free and harmless from all damages occasioned in any way by its actions or neglect or those of its agents, employees, or workmen.

Work that requires the Contractor to shut down the road on weekends or at nights is considered an incidental to the project.

The Contractor at all times shall conduct the work in such manner as to cause as little interference as possible with private business or with private and public travel on the public highway. All damage (other than that resulting from normal wear and tear) to existing roads or pavements shall be repaired to withstand traffic in a safe condition.

Where the Contractor finds it necessary to remove excavated material to some other location, care should be taken not to overload trucks, which would in turn spill material out upon highways. Any such material spilled upon highways shall be immediately cleaned up from the location and properly disposed of per applicable regulation.

Where it is necessary and is agreeable with public and private property owners, excavated materials may be temporarily piled in the streets or roadways, however, one lane of traffic must be maintained at all times.

After excavated materials have been removed, all hard surface streets or roadways shall be thoroughly cleaned and left free of dirt, gravel and dust. Streets or roadways, which do not have hard surfaces, must be restored to their original condition at the expense of the Contractor. Streets and roadways shall be kept in a safe and passable condition at all times.

6.01. Temporary Bridges. Contractor shall construct substantial bridges at all points where it is necessary to maintain traffic across pipeline construction. Bridges in public streets, roads, and highways shall be acceptable to the authority having jurisdiction thereover. Bridges erected in private roads and driveways shall be adequate for the service to which they will be subjected. Bridges shall be provided with substantial guardrails and with suitably protected approaches. Footbridges shall be at least 4 feet wide, provided with handrails and uprights of dressed lumber. Bridges shall be maintained in place as long as

the conditions of the Work require their use for safety of the public. When necessary for the proper prosecution of the Work in the immediate vicinity of a bridge, the bridge may be relocated or temporarily removed for such period as Owner may permit.

6.02. Detours. Where required by the authority having jurisdiction thereover that traffic be maintained over any construction work in a public street, road, or highway, and the traffic cannot be maintained on the alignment of the original roadbed or pavement, Contractor shall, at its own expense, construct and maintain a detour around the construction work. Each detour shall include a bridge across the pipe trench and all necessary barricades, guardrails, approaches, lights, signals, signs, and other devices and precautions necessary for protection of the Work and safety of the public.

7. BARRICADES AND LIGHTS. All streets, roads, highways, and other public thoroughfares, which are closed to traffic, shall be protected by effective barricades on which shall be placed acceptable warning signs. Barricades shall be located at the nearest intersecting public highway or street on each side of the blocked section.

All open trenches and other excavations shall have suitable barricades, signs, and lights to provide adequate protection to the public. Obstructions, such as material piles and equipment, shall be provided with similar warning signs and lights.

All barricades and obstructions shall be illuminated with warning lights from sunset to sunrise. Material storage and conduct of the Work on or alongside public streets and highways shall cause the minimum obstruction and inconvenience to the traveling public.

All barricades, signs, lights, and other protective devices shall be installed and maintained in conformity with applicable statutory requirements and, where within railroad and highway rights-of-way, as required by the authority having jurisdiction thereover.

8. TRAFFIC CONTROL. In addition to the requirements of the maintenance of traffic and barricades and lights paragraphs in this section, traffic control shall be as set forth herein.

During periods of inclement weather, rush-hour traffic, or during periods of unusually heavy traffic, the Owner may require the Contractor to cease operations in order to adequately handle the traffic. The Owner reserves the right to require the suspension or delay of certain operations, or the expediting of other operations, at no additional cost to the Owner, to provide a proper sequence of operations which will promote the satisfactory movement of traffic. The Owner may require additional barricades, lights, or flagmen at any time or at any place necessary for proper protection of traffic, but approval by the Owner of the Contractor's method of operation shall not relieve the Contractor of his responsibility to protect traffic.

The use and duration of using heavy steel plates to convey traffic across open excavations shall be kept to a minimum. Steel plates shall be secured in an appropriate manner to prevent them from moving. The purpose of this requirement is to minimize the sound to the residents, institutions, commercial establishments, etc. The Owner reserves the right, at no additional cost to the Owner, to require the Contractor to complete certain operations and street re-paving so steel plates are not required.

The use of heavy steel plates during should be keep to a minimum. The Contractor shall place traffic cones behind the curb or other visible location to help identify the beginning and

termination of the steel plates. Special precautions shall be taken by the Contractor if steel plates are used during inclement weather. The Contractor shall be responsible for notifying the authority having jurisdiction over the roadway maintenance (snow removal) with the locations of the steel plates prior to each inclement weather event. The Contractor shall maintain the traffic cones and steel plates.

Contractor shall take extra precautions to provide and maintain emergency access on all streets and roads and to all residential, commercial, and other properties for police and fire departments and emergency medical service throughout the construction operations.

Contractor shall maintain the use of existing walks for pedestrians at all times. Additional requirements are specified in the temporary bridge subparagraph in this section.

9. TRAFFIC CONTROL PLAN. To obtain a permit to work within public rights-of-way, Contractor may be required to prepare and submit to the appropriate agencies, a traffic control plan in conformance with the requirements of the authority having jurisdiction thereover.

10. FENCES. All existing fences affected by the Work shall be maintained by Contractor until completion of the Work. Fences which interfere with construction operations shall not be relocated or dismantled until written permission is obtained from the owner of the fence, and the period the fence may be left relocated or dismantled has been agreed upon. A copy of all written permissions shall be submitted to Owner. Where fences must be maintained across the construction easement, adequate gates shall be installed. Gates shall be kept closed and locked at all times when not in use.

On completion of the Work across any tract of land, Contractor shall restore all fences to their original or to a better condition and to their original location.

11. PROTECTION OF PUBLIC AND PRIVATE PROPERTY, DAMAGE TO EXISTING PROPERTY. Contractor shall protect, shore, brace, support, and maintain all underground pipes, conduits, drains, and other underground construction uncovered or otherwise affected by his construction operations. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences, and other surface structures affected by construction operations, together with all sod, shrubs, trees in yards, parkways, and medians shall be restored to their original or better condition, whether within or outside the easement. Unless otherwise specified, all replacements shall be made with new materials.

Sodded and landscaped areas on improved property (yards) shall be disturbed only to the extent required to permit construction. Such areas shall not be used as storage sites for construction supplies and, insofar as practicable, shall be kept free from stockpiles or excavated materials.

No trees shall be removed outside the permanent easement, except where authorized by Owner. Hand excavation shall be employed as necessary to prevent injury to trees. Trees left standing shall be adequately protected against damage from construction operations.

Contractor shall be responsible for all damage to streets, curbs/gutters, roads, sidewalks, shoulders, ditches, embankments, culverts, bridges, traffic loops and other public or private property, regardless of location or character, which may be caused by transporting equipment, materials, or workers to or from the Work or any part or site thereof, whether by him or his

Subcontractors. Contractor shall make satisfactory and acceptable arrangements with the owner of, or the agency or authority having jurisdiction over, the damaged property concerning its repair or replacement or payment of costs incurred in connection with the damage and shall furnish a written verification of all agreements.

Should the Contractor's operations damage any existing underground or aboveground utility, installation, structure, or other construction, Contractor shall immediately notify the authority owning or having jurisdiction over and control of the utility, installation, structure, or other construction, and make a report of such damage. A copy of the report shall be submitted to the Owner. The damaged item shall be repaired immediately by and at the expense of the Contractor unless otherwise specified or acceptable to the authority or owner having jurisdiction over, or to the Owner.

The utility, installation, structure, or other structures damaged by Contractor's operations shall be repaired, replaced, or otherwise restored in accordance with the local ordinances, standards, and requirements of the applicable authority or owner having jurisdiction thereover and shall be subject to acceptance by the Owner.

Special precaution shall be taken by the Contractor to avoid damage to existing overhead and underground utilities owned and operated by the Owner or other public or private utility companies.

With particular respect to existing underground utilities, all available information concerning their location has been shown on the drawings. While it is believed that the locations shown are reasonably correct, the Owner cannot guarantee the accuracy or adequacy of this information.

Before proceeding with the work, the Contractor shall confer with all public or private companies, agencies, property owners, or departments that own and operate utilities in the vicinity of the construction work. The purpose of this conference or conferences shall be to notify said companies, agencies or departments of the proposed construction schedule, verify the location of and possible interference with the existing utilities, fire protection systems, lawn irrigation systems, etc., that are shown on the plans, arrange for necessary suspensions of service, and make arrangements to locate and avoid interference with all other utilities (including house connections) that are not shown on the plans. The Owner has no objection to the Contractor arranging for said utility companies, agencies, or departments to locate and uncover their own utilities, however, insofar as the Owner is concerned, the Contractor shall bear entire responsibility for locating and avoiding or repairing damage to said existing utilities.

Where existing utilities or other underground structures are encountered, they shall not be displaced or molested unless necessary, and in such case they shall be replaced in as good or better condition than found as quickly as possible. All such utilities that are so damaged or molested shall be replaced at the Contractor's expense unless in the opinion of the Owner such damage was caused through no fault or action of the Contractor.

It is expected that the Contractor will be diligent in its efforts and use every possible means to locate existing utilities. Any claims for unavoidable damage based on improper or unknown locations will be thoroughly examined in the light of the Contractor's efforts to locate the said utilities or obstructions prior to beginning.

When construction is completed, the private property owner's facilities and grounds shall be restored to as good or better condition than found and as quickly as possible at the Contractor's expense.

All water mains and water service connections damaged by Contract's operations will be repaired by the Owner at the expense of the Contractor unless other arrangements are made. Customer irrigation piping damaged by Contractor's operations shall be repaired by and at the cost of the Contractor.

All fire hydrants and water control valves shall be kept free from obstruction and available for use at all times.

12. TREE AND PLANT PROTECTION. Tree and plant protection is of prime importance. Except where otherwise authorized, indicated, or specified, no trees or plants shall be removed. Activities near trees that are to be protected shall be kept to a minimum. Tree protection shall also include trimming, when necessary, to prevent damage by construction equipment.

Trees and plants to be removed shall be removed in such a manner as to avoid injury to surrounding trees and plants. Contractor shall be responsible for disposal of all trees and plants removed or damaged.

13. HAUL ROUTES. Contractor shall obtain and pay for all necessary permits from the applicable authority having jurisdiction thereover to allow use of public streets to transport equipment and material to and from the Site. At such time the Contractor shall request the agency having jurisdiction to establish the haul routes. A copy of the permit and designated haul routes shall be provided to the Owner prior to commencement of Work in that area.

14. PARKING. Contractor shall provide and maintain suitable parking areas for the use of all construction workers and others performing work or furnishing services in connection with the Project, as required to avoid any need for parking personal vehicles where they may interfere with public traffic, Owner's operations, or construction activities.

Contractor shall clean up all parking areas used and return them to their original state.

The location of the Contractor's parking areas shall be acceptable to Owner, and the owner and tenant of private property or to the authority having jurisdiction over public property upon which the parking area will be located.

15. RESIDENTIAL PARKING. Contractor shall provide appropriate areas for residents to park their vehicles during the construction operations adjacent to their properties, if required. This shall include making the appropriate areas available to the residents by not storing construction materials or equipment in these areas and providing signs and other notification methods acceptable to the Owner for instructing the residents on the location of the temporary parking and its intended use.

Additional requirements for notifying property owners and tenants of available temporary parking are covered in the project requirements section.

16. ACCESS ROADS. Contractor shall establish and maintain temporary access roads to various parts of the Site as required to complete the Project. Such roads shall be available for the use of all others performing work or furnishing services in connection with the Project.

17. NOISE CONTROL. Contractor shall take reasonable measures to avoid unnecessary noise. Such measures shall be appropriate for the normal ambient sound levels in the area during working hours. All construction machinery and vehicles shall be equipped with practical sound-muffling devices, and operated in a manner to cause the least noise consistent with efficient performance of the Work.

During construction activities on or adjacent to occupied buildings, and when appropriate, Contractor shall erect screens or barriers effective in reducing noise in the building and shall conduct his operations to avoid unnecessary noise which might interfere with the activities of building occupants.

18. DUST CONTROL. Contractor shall take reasonable measures to prevent unnecessary dust. Earth surfaces subject to dusting shall be kept moist with water or by application of a chemical dust suppressant. When practicable, dusty materials in piles or in transit shall be covered to prevent blowing dust.

Buildings or operating facilities, which may be affected adversely by dust, shall be adequately protected from dust. Existing or new machinery, motors, instrument panels, or similar equipment shall be protected by suitable dust screens. Proper ventilation shall be included with dust screens.

19. STORM WATER EROSION AND PREVENTION. The following is to be used as a guideline in conjunction with the plans for temporary drainage provisions, erosion control and pollution control as required by a Sanitation District #1 Permit and Kentucky Pollution Discharge Elimination System (KPDES). Reference "Kentucky Best Management Practices for Controlling Erosion, Sediment, and Pollutant Runoff from Construction Sites" and the "Northern Kentucky Sanitation District No. 1 Storm Water Permitting Guide".

19.01. GRADING PERMIT, NOTICE of INTENT and NOTICE of TERMINATION. The owner will be responsible for acquiring a Grading Permit from Sanitation District #1 and filing a Notice of Intent/Notice of Termination with the KPDES. A Grading Permit is necessary when the square footage of the pervious and impervious areas are equal to or greater than one acre.

A. Projects less than one acre:

- Best Management Practices that are shown on the plans and specifications are a minimum. Contractors are responsible for providing the minimum, and, if necessary will provide additional BMP's to satisfy the situation and the regulating authority.

B. Projects greater than one acre:

- Best Management Practices that are shown on the plans and specifications are a minimum. Contractors are responsible for providing the minimum, and, if necessary will provide additional BMP's to satisfy the situation and the regulating authority.

- Sanitation District #1 must be contacted at least 72 hours prior to any construction activity. (Andy Amen @ 859-578-6880)
- Site stabilization shall begin within 14 days where construction activity has permanently ceased.
- Site stabilization shall begin within 21 days where construction activity has temporarily ceased.
- BMP'S shall be checked a minimum of every 7 days and within 24 hours after a 0.5" rainfall. Contractor shall keep a maintenance log book that records the date, weather event, reason for inspection and signature. The maintenance log book shall be turned over to the Owner at the end of the project.

19.02. TEMPORARY DRAINAGE PROVISIONS. Contractor shall provide for the drainage of storm water and such water as may be applied or discharged on the Site in performance of the Work. Drainage facilities shall be adequate to prevent damage to the Work, the Site, and adjacent property.

Existing drainage channels and conduits shall be cleaned, enlarged, or supplemented as necessary to carry all increased runoff attributable to Contractor's operations. Dikes shall be constructed as necessary to divert increased runoff from entering adjacent property (except in natural channels), to protect Owner's facilities and the Work, and to direct water to drainage channels or conduits. Ponding shall be provided as necessary to prevent downstream flooding.

19.03. EROSION CONTROL. Contractor shall prevent erosion of soil on the Site and adjacent property resulting from it's construction activities. Effective measures shall be initiated prior to the commencement of clearing, grading, excavation, or other operation that will disturb the natural protection.

Work shall be scheduled to expose areas subject to erosion for the shortest possible time, and natural vegetation shall be preserved to the greatest extent practicable. Temporary storage and construction buildings shall be located, and construction traffic routed, to minimize erosion. Temporary fast-growing vegetation or other suitable ground cover shall be provided as necessary to control runoff.

20. POLLUTION CONTROL. Contractor shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris, and other substances resulting from construction activities. No sanitary wastes will be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris, or other substance will be permitted to enter sanitary sewers, and reasonable measures shall be taken to prevent such materials from entering any drain or watercourse.

21. CUSTOMER NOTIFICATION. The Contractor after approval by the Owner's representative shall notify all affected Owner customers a minimum of 48 hours prior to interrupting water service. Notification shall be made by the Contractor using the Northern Kentucky Water District "Interruption of Service Notice". All Owner customers shall be notified prior to having their water turned-off to have ample time to draw water for use until service is restored. Under no circumstance shall a customer of the Owner be without water service overnight. If water service or existing water system cannot be interrupted during normal daytime hours due to

water needs or high demands, the contractor may be required to conduct the work at night or on the weekend. This work is considered an incidental to the project.

It is the Contractor's responsibility to post "No Parking" signs twenty-four (24) hours in advance of starting work in designated parking zones. Said signs shall be removed upon completion of work. Signs shall not be left posted over weekends or holidays.

22. UNSAFE CONDITIONS. The Owner reserves the right to take whatever action necessary to correct an unsafe condition created by the Contractor at the Contractor's expense.

23. SECURITY. CONTRACTOR shall be responsible for protection of the Site, and all the Work, materials, equipment, and existing facilities thereon, against vandals and other unauthorized persons.

No Claim shall be made against OWNER by reason of any act of an employee or trespasser, and CONTRACTOR shall make good all damage to OWNER's property resulting from CONTRACTOR's failure to provide security measures as specified. Security measures shall be at least equal to those usually provided by OWNER to protect OWNER's existing facilities during normal operation, but shall also include such additional security fencing, barricades, lighting, and other measures as required to protect the Site.

24. STREAM CROSSINGS. The following is reprint of the requirements and conditions for blue line stream crossings which shall be followed:

**SECTION 401 WATER QUALITY CERTIFICATION
CONDITIONS FOR NATIONWIDE PERMIT NO. 12
WITHIN THE COMMONWEALTH OF KENTUCKY**

**General Certification -Nationwide Permit #12 - Utility Line Backfill and
Bedding**

This General Certification is issued January 6, 2017, in conformity with the requirements of Section 401 of the Clean Water Act of 1977, as amended (33USC 1314), as well as Kentucky Statute KRS 224.16-070.

The Commonwealth of Kentucky hereby certifies under Section 401 of the Clean Water Act (CWA) that it has reasonable assurances that applicable water quality standards under Kentucky Administrative Regulations Title 401, Chapter 5, established pursuant to Sections 301, 302, 304, 306 and 307 of the CWA, will not be violated for the activity covered under 33 CFR Part 330 Appendix A(B) (12), namely utility line backfill and bedding provided that the following conditions are met:

1. This general Water Quality Certification is limited to the crossing of streams by utility lines. The length of a single utility crossing shall not exceed twice the width of the stream. This document does not authorize the installation of utility lines in a linear manner within the stream channel or below the top of the stream bank.

2. The provisions of 401 KAR 5:005 Section 8 are hereby incorporated into this General Water Quality Certification. Namely, "Sewer lines shall be located at least 50 feet away from a stream which appears as a blue line on a USGS 7 ½ minute topographic map except where the sewer alignment crosses the stream. The distance shall be measured from the top of the stream bank. The cabinet may allow construction within the 50' buffer if adequate methods are used to prevent soil from entering the stream.

Gravity sewer lines and force mains that cross streams shall be constructed by methods that maintain normal stream flow and allow for a dry excavation. Water pumped from the excavation shall be contained and allowed to settle prior to re-entering the stream. Excavation equipment and vehicles shall operate outside of the flowing portion of the stream. Spoil material from the sewer line excavation shall not be allowed to enter the flowing portion of the stream." The provisions of this condition shall apply to all types of utility line stream crossings.

3. Removal of riparian vegetation in the utility line right-of-way shall be limited to that necessary for equipment access. Effective erosion and sedimentation control measures must be employed at all times during the project to prevent degradation of waters of the Commonwealth. Site regarding and reseeding will be accomplished within 14 days after disturbance.
4. Utility line construction projects through jurisdictional wetlands shall not result in conversion of the area to non-wetland status.
5. This General Certification shall not apply to those waters of the Commonwealth identified as Outstanding Resource Waters, Exceptional Waters or Cold Water Aquatic Habitat Waters, as designated by the Division of Water. An individual Water Quality Certification will be required for projects in these waters.

Non-compliance with the conditions of this general certification or violation of Kentucky state water quality standards may result in civil penalties.

This General Certification is issued January 6, 2017, (expires 5 years from this date) in conformity with the requirements of Section 401 of the Clean Water Act of 1977, as amended (33USC 1314), as well as Kentucky Statute KRS 224.16-070.

For additional information contact: Kentucky Division of Water, Water Quality Branch, 14 Reilly Road, Frankfort, Ky 40601 Phone (502)564-3410 Fax (502)564-4245

NATIONWIDE PERMIT CONDITIONS

GENERAL CONDITIONS: The Following general conditions must be followed in order for any authorization by a NWP to be valid:

1. Navigation. No activity may cause more than a minimal adverse effect on navigation.

2. Proper maintenance. Any structure of fill authorized shall be properly maintained, including maintenance to ensure public safety.

3. Erosion and siltation controls. Appropriate erosion and siltation controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date.

4. Aquatic life movements. No activity may substantially disrupt the movement of those species of aquatic life indigenous to the water body, including those species which normally migrate through the area, unless the activity's primary purpose is to impound water.

5. Equipment. Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.

6. Regional and case-by-case conditions. The activity must comply with any regional conditions which may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state or tribe in its section 401 water quality certification.

7. Wild and Scenic rivers. No activity may occur in a component of the National Wild and Scenic River System; or in a river officially designed by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely effect the Wild and Scenic River designation, or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service.)

8. Tribal rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

9. Water quality certification. In certain states, an individual Section 401 water quality certification must be obtained or waived (see CFR 330.4(c)).

10. Endangered Species.

a. No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which is likely to destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District Engineer if any listed species or critical habitat might be affected or is in the vicinity of the project, and shall not begin work on the activity until notified by the District Engineer that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized.

b. Authorization of an activity by a nationwide permit does not authorize the take of a threatened or endangered species as defined under the Federal Endangered Species Act. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with incidental take provisions, etc.) from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, both lethal and non-lethal takes of protected species are in violation of the Endangered Species Act. Information on the location of threatened and

endangered species and their critical habitat can be obtained directly from the offices of the U.S. Fish and Wildlife Service and National Marine Fisheries Service or their world web pages at <http://www.fws.gov>

11. Historic properties. No activity which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the DE has complied with the provisions of 33 CFR Part 325, Appendix C. The prospective permittee must notify the District Engineer if the authorized activity may affect historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)).

12. Compliance certification. Every permittee who has received a Nationwide permit verification from the Corps will submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the Corps with the authorization letter and will include: a.) A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions; b.) A statement that any required mitigation was completed in accordance with the permit conditions; c.) The signature of the permittee certifying the completion of the work and mitigation.

13. Multiple use of Nationwide permits. In any case where any NWP number 12 through 40 is combined with any other NWP number 12 through 40, as part of a single and complete project, the permittee must notify the District Engineer in accordance with paragraphs a, b, and c on the Notification General Condition number 13. Any NWP number 1 through 11 may be combined with any other NWP without notification to the Corps, unless notification is otherwise required by the terms of the NWPs. As provided at 33 CFR 330.6 © two or more different NWPs can be combined to authorize a single and complete project. However, the same NWP cannot be used more than once for a single and complete project.

SECTION 404 ONLY CONDITIONS:

In addition to the General Conditions, the following conditions apply only to activities that involve the discharge of dredged or fill material into waters of the U.S., and must be followed in order for authorization by the NWPs to be valid:

1. Water supply intakes. No discharge of dredged or fill material may occur in the proximity of a public water supply intake except where the discharge is for repair of the public water supply intake structures or adjacent bank stabilization.

2. Shellfish production. No discharge or dredged or fill material may occur in areas of concentrated shellfish production shellfish production, unless the discharge is directly related to a shellfish harvesting activity authorized by NWP 4.

3. Suitable material. No discharge of dredged or fill material may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.,) and material discharged

must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

4. Mitigation. Discharges of dredged or fill material into waters of the United States must be minimized or avoided to the maximum extent practicable at the project site (i.e., on-site), unless the District Engineer approves a compensation plan that the District Engineer determines is more beneficial to the environment than on-site minimization or avoidance measures.

5. Spawning areas. Discharge in spawning areas during spawning seasons must be avoided to the maximum extent practicable.

6. Obstruction of high flows. To the maximum extent practicable, discharges must not permanently restrict or impede the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to Impound waters).

7. Adverse effects from impoundments. If the discharge creates an impoundment of water, adverse effects on the aquatic system caused by the accelerated passage of water and /or the restriction of its flow shall be minimized to the maximum extent practicable.

8. Waterfowl breeding areas. Discharges into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

9. Removal of temporary fills. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

TERMS FOR NATIONWIDE PERMIT NO. 12

Utility Line Discharges. Discharges of dredged or fill material associated with excavation, backfill or bedding for utility lines, including outfall and intake structures, provided there is no change in pre-construction contours. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquefiable, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone and telegraph messages, and rapid and television communication. The term "utility line" does not include activities which drain water of the United States, such as drainage tile, however, it does apply to pipes conveying drainage from another area. This NWP authorizes mechanized landclearing necessary for the installation of utility lines, including overhead utility lines, provided the cleared area is kept to the minimum necessary and pre-construction contours are maintained. However, access roads, temporary or permanent, or foundations associated with overhead utility lines are not authorized by this NWP. Material resulting from trench excavation may be temporarily sidecast (up to three months) into waters of the United States, provided that the material is not placed in such a manner that it is dispersed by currents or other forces. The DE may extend the period of temporary side-casting not to exceed a total of 180 days, where appropriate. The area of waters of the United States that is disturbed must be limited to the minimum necessary to construct the utility line. In wetlands, the top 6" to 12" of the trench should generally be backfilled with topsoil from the trench. Excess material must be removed to upland areas

immediately upon completion of construction. Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line. (See 33 CFR Part 322).

Notification: The permittee must notify the district engineer in accordance with the "Notification" general condition, if any of the following criteria are met:

- a. Mechanized land clearing in a forested wetland;
- b. A Section 10 permit is required for the utility line;
- c. The utility line in waters of the United States exceeds 500 feet; or,
- d. The utility line is placed within a jurisdictional area (i.e., a water of the United States), and it runs parallel to a streambed that is within that jurisdictional area. (Sections 10 and 404)

End of Section

TEMPORARY SERVICES

1. TEMPORARY SERVICE PLAN. The Contractor shall furnish the District a detailed plan for installation and connection of temporary pipes necessary to maintain continuous water service to the District's customers while water mains are out-of-service. This plan shall be submitted to the District a minimum of two weeks prior to beginning any construction of this project. This plan must show, in detail, all 2-inch and larger service connections, size and material specifications of temporary pipes to be used, location of feed for temporary pipes, and the approximate location of the temporary pipes with respect to the roadways and sidewalks. This plan will be reviewed by the District as well as the local fire departments to insure adequate supply for domestic services and fire protection. Any alterations required by the District to the submitted plan to conform to the requirements of these specifications will be accomplished as a part of the lump sum proposal.

Customers shall be supplied by a temporary water system for a maximum of 30 calendar days, unless agreed otherwise by the District.

2. TEMPORARY WATER MAIN BREAK. In the event that the temporary water main fails, the Contractor shall respond to the water main break within 1 hour from the time the Owner notifies the Contractor verbally or in writing. Failure to comply may result in Owner correcting damaged work.

3. WATER MAIN FLUSHING CONNECTIONS. On any water main that becomes temporarily dead-ended as a result of this work, the contractor shall furnish a flushing connection at the dead-end. It is suggested that a jumper hose be installed in the inlet side of the last existing service before the dead end. Fire hydrants may be used for this purpose if available. This cost is incidental to the project cost.

4. SIZE OF TEMPORARY PIPES. Contractor's temporary pipes shall be sufficient to maintain continuous water supply to all domestic and fire services during the cleaning and lining operation. Water mains, domestic services, and fire services that are to be temporarily served must be connected with temporary pipe at least equal in size to the existing water main or service line, up to six-inch. Water mains, domestic services, and fire services greater than six-inch shall be supplied by six-inch temporary pipe.

5. INSTALLATION OF TEMPORARY PIPES. The Contractor shall furnish, install, and maintain all temporary pipe and other appurtenances for customers during the water main cleaning and lining operations. The Contractor shall perform all connecting and disconnecting of the temporary pipe to customers' services.

All temporary service pipes crossing streets, driveways, and/or wheelchair ramps must be buried or use ramps to prevent a traffic/pedestrian hazard. Temporary pipe that is buried shall be covered with a rubber ramp or bituminous asphalt cold patch, compacted by a roller or a mechanical compaction device, provided by the Contractor. When rubber ramps are used the Contractor shall be responsible for the maintenance of the temporary ramping method and repairing any damages.

Plastic temporary piping will be allowed if properly placed so as to prevent its damage by traffic. All temporary sidewalk crossings must be painted with orange fluorescent paint with a flashing light barricade maintained by the Contractor.

Temporary piping longer than 750 linear feet must have a supply at each end, unless additional length is approved by the District. Temporary piping must have a main shut-off valve at least every 500 ft. All piping will be looped together when possible.

6. CONNECTION IN METER BOX. On all service lines 2-inch or less in diameter requiring temporary service connections, the meter will be removed and temporary water may be connected into a tee built with water meter end fittings that can be placed within the meter setter and tightened to prevent leaking. An alternate connection method may be used if approved by the District. Refer to the District's standard drawings for a typical meter setting detail.

All existing services are to be connected to the temporary piping in the meter box whether or not an occupied structure exists at the service location. The District will make available to the Contractor a list of services within the scope of this project showing size and approximate location.

All temporary connections at meter boxes must utilize a vault lid with a cutout and securely placed on the meter box. These lids will be furnished to the Contractor at the Districts' Warehouse. All service connection hoses must be cut to fit the service with no more than 5-feet excess length over the direct distance from the service to the temporary main.

All meters that are removed shall be tagged with the customers address and returned to the Districts' Warehouse.

7. CONNECTION AT FIRE HYDRANTS. All temporary bypass piping attached to fire hydrants shall be connected in such a manner that in an emergency the fire hydrant can be used for fire fighting purposes. Such connections to fire hydrants will require a temporary hydrant outlet compatible with District threads (**2 ½" outlet = Old Cincinnati thread (3.095 x 6), 4 ½" outlet = NST**) for each fire hydrant outlet used.

8. BURIED CONNECTIONS. When necessary the Contractor shall make below ground taps for temporary pipe connections where fire hydrants cannot be used or are not available.

9. PROTECTION OF SERVICE LINES. During the time the service line between the water main and the meter box is out-of-service, the Contractor shall protect the service line from contamination and remove any debris or blockages resulting from the Work.

10. TEMPORARY PIPE MATERIAL. All temporary pipe material shall have been approved for potable water use by the Kentucky Natural Resources and Environmental Protection Cabinet (NREP). The pipe, hoses and other materials, which are to be furnished by the Contractor for use as temporary service pipe shall be clean, water-tight and fully adequate to withstand existing pressures and all other conditions of use and shall be approved by the District.

Plastic temporary piping that is approved by NSF Standard 61 and NREP and is rated for a minimum 150 psi working pressure will be allowed if properly placed so as to prevent its damage by traffic.

11. DISINFECTION OF TEMPORARY PIPE. Contractor must disinfect all temporary pipe after the pipe is in place and before connections are made to customer meters. Care shall be exercised throughout the installation of all temporary pipe and service fittings to avoid contamination of any mains or house services or contamination of the temporary pipe. Each section of temporary pipe must be disinfected as specified in the District's Disinfection of Water Mains and Temporary Services section prior to being placed into service. All temporary service pipe must be flushed before being hooked to meters.

12. OPERATION OF TEMPORARY PIPES. The Contractor shall maintain the temporary water pipe in safe and operative condition at all times. The Owner shall be responsible for measuring and recording the chlorine level of the water in the temporary pipes during the time the pipe is in service. Residual chlorine concentration shall be measured at least twice per week at intervals of not greater than 750 feet along the temporary pipe. If measured concentration at a sample location is less than 0.5 mg/l, the Contractor shall flush the temporary pipe with water from the District's water system until the residual chlorine concentration level is within +/-10% of the chlorine concentration in the District's water supply or to a level that is acceptable to the Owner.

13. FINAL RECONNECTION OF SERVICE. When Contractor is preparing to make the final reconnection to the customer's service line, Contractor shall acquire new meters from the District. Contractor shall completely fill out all information on a data card attached to each meter. These cards shall be returned to the District's inspector.

14. REMOVAL OF TEMPORARY PIPE. Upon restoring to service water mains the Contractor shall remove any corresponding section of temporary pipes and shall leave the streets, sidewalks and adjacent property in a neat and orderly condition and in every respect equal to if not better than their original condition.

15. PAYMENT. Payment for all work covered under this section and all costs in connection therewith shall be included and paid as a lump sum in the cost proposal.

End of Section

TECHNICAL PROVISIONS

1. **WATER LINES**

A. **General**

The Contractor shall furnish all labor, materials, and equipment to install the water lines and appurtenances as shown on the plans and specifications. Construction shall be in accordance with the District's Standard Specifications & Drawings for the Installation of Water Mains. The Contractor is responsible for obtaining a current copy of the Standards from the District which may be obtained from the website at www.nkywater.org or by contacting Denise Manning at (859) 426-2718.

The Contractor shall be responsible for videotaping the entire project prior to the start of construction. The video shall show driveway crossings, drainage ditches, problem areas, lay of the land, etc. One copy shall be forwarded to the District. Pictures of specific areas are recommended.

All private residents shall be notified no less than 48 hours and all businesses, industrial and commercial customers shall be notified no less than 1 week prior to the interruption of service. All shutdowns shall be coordinated with the affected residents, with priority given to any special needs customers such as hospitals, schools, and customers with special medical needs.

The water lines shall be Class 50 or 52 Ductile Iron Pipe, C900 or C909 P.V.C. Pipe as specified on the Work Order.

The District will secure right-of-way permits as needed.

Unless otherwise specified all pipe fittings, valves, fire hydrants and accessories shall be rated for a minimum of 250 psi working pressure and material as specified herein or shown on the proposal. The pipe and accessories shall be new and unused. The interior of the pipe shall be thoroughly cleaned of foreign matter before being lowered into the trench and shall be kept clean during laying operations by plugging. The full length of each section of pipe shall rest upon the pipe bed with recessed excavation to accommodate bells and joints. Any pipe that has the grade or joint disturbed after laying, shall be taken up and re-laid.

Trench backfill shall be rough graded with ditch lines established and maintained within 500 feet for rural areas and 250 feet for urban areas for actual installation of main unless otherwise directed by the District. Individual roadways shall be completed (final grade established, preparation of the seed bed, and all concrete and asphalt restoration completed) prior to the start of additional roadways unless otherwise approved by the District. Temporary roadway and driveway access shall be maintained during construction.

Pipe shall not be laid in water or when trench or weather conditions are unsuitable for the work, except by permission from the District. When work is not in progress, open ends of pipe and fittings shall be plugged with a watertight plug. Any section of pipe found to be defective before and after laying shall be replaced with sound pipe without additional expense to the District. Fittings at bends in the pipe shall be firmly wedged with concrete block as indicated on the plans against the vertical face of the trench to prevent the fittings from being blown off the lines when under pressure.

SEWER MAIN SEPARATION. A 10' minimum lateral separation between water mains and sewers (defined as any sanitary/combined sewer, septic tank or subsoil treatment system) and sewer manholes, measured from the outside diameter to outside diameter, must be maintained. When a 10' separation is not practical then a variance may be obtained from DOW to maintain an 18" vertical and 18" lateral separation. No variances will be permitted for force mains.

SEWER MAIN CROSSING. Waterlines crossing under or over sewers lines (defined as any sanitary/combined sewer, septic tank or subsoil treatment system) must maintain a minimum vertical clearance of 18" and one full length of pipe shall be located so both joints are as far from the sewer as possible. Special Structural support for the water and sewer pipes may be required.

SEWER LATERALS. Sewer laterals (sewer lines that run between the sewer main and the house or other structure) are owned and maintained by the property owner. Since the sewer lateral is privately owned, locating these lines is very difficult. The Contractor is responsible for locating sewer laterals and shall use care when working near them. The Contractor shall be responsible for any and all damage to a sewer lateral in the area of their work. In the event of a sewer lateral is damaged, the contractor shall immediately notify Sanitation District #1 and follow all of their procedures for repair and inspection of the repair.

ORGANIC CONTAMINATION. Mains installed within 200 feet of petroleum tanks and other areas of organic contamination must be ductile iron pipe.

REDUCTION OF LEAD IN DRINKING WATER ACT. All material supplied and installed by the contractor after January 4, 2014 shall meet the applicable requirements of the Reduction of Lead in Drinking Water Act.

B. Hauling and Storage

The Contractor shall notify the District when pipe will be received on the job so that proper arrangements may be made for inspecting the unloading and stringing, as well as inspecting and examining the pipe materials.

The Contractor shall be required to deliver all equipment and other materials and place same as and where required for installation. Care must be exercised in the handling of all materials and equipment. The Contractor will be held responsible for all breakage or damage to same caused by his workman, agents, or appliances for handling and moving. Pipes and other castings shall in no case be thrown or dropped from cars, trucks, or

wagons to the ground, but same shall be lowered gently and not allowed to roll against or strike other castings and unyielding objects violently. Pipe and other castings may be unloaded, yarded, and distributed at places that will not interfere with other building operations as the Contractor may elect.

Valves, castings, and other materials shall be yarded or housed in same convenient location by the Contractor. The cost of all hauling, handling, and storage shall be included in the bid prices for this project. The District takes no risk or responsibility for fire, flood, theft, or damage until after final acceptance of work.

2. **WATER MAIN PIPE**

A. **Ductile Iron Pipe.** Ductile iron pipe shall meet the requirements of ANSI A21.51 (AWWA C151)

1. **Material.** The chemical constituents shall meet the physical property recommendations of ASTM A536 to ensure that the iron is suitable for satisfactory drilling and cutting.
2. **Minimum Thickness.** Unless otherwise shown on the plans, the minimum thickness of the barrel of the pipe shall be Class 50. All pipe shall be clearly marked as to class by the manufacturer.
3. **Coating and Lining.** The pipe shall be coated outside with a bituminous coating in accordance with ANSI A 21.51 (AWWA C151) and lined inside with cement mortar and seal coated in accordance with ANSI A21.4 (AWWA- C104).
4. **Fittings & Glands.** Fittings and glands shall be ductile iron as specified in Section 3A, "Ductile Iron Fittings".
5. **Polyethylene Encasement.** Ductile Iron Pipe shall be encased with Polyethylene film conforming to ANSI A21.5 (AWWA C105)
6. **Tracing Wire.** All pipe shall be installed with a 12 gauge solid copper (P.V.C coated) tracing wire taped to the top of the pipe every 5'. **Maximum** tracing wire length shall be 500' without terminating in a curb stop box. Water main installations that stop short of the permanent fire hydrant tee, the tracing wire shall be terminated in a curb stop box. Splices in the tracing wire shall be kept to minimum and approved by the District. If splices are required, they shall be made with copper split bolt (IlSCO #IK-8 or approved equal) and taped with electrical tape. Should the new pipe be fitted to an existing pipe without a tracing wire, the tracing wire shall be terminated in a curb stop box at the point where the transition is made. Curb stop boxes shall not be located in pavement.

B. **Polyvinyl Chloride Pipe** (P.V.C.). P.V.C. Pipe shall meet the requirements of AWWA C900 and as specified in the Work Order.

1. **Material.** P.V.C. pipe shall be made from class 12454-A or class 1245-B virgin compounds as defined in ASTM D1784. All compounds shall qualify for a rating of 4000 psi for water at 73.4 degree F. per the requirements of PPI TR3.

2. Minimum Pressure Class. Unless otherwise shown, the minimum pressure class of 150 psi, D.R. 18 shall be used. All pipe shall be clearly marked as to class by the manufacturer.
3. Beveled Spigot. Beveled spigot ends must have a minimum bevel of 8 degrees to a maximum bevel of 15 degrees. The vertical face of the spigot end may not exceed 75% of pipe wall thickness and the horizontal length of the bevel shall not exceed 1.25 inches. Field beveled spigot end shall be made per manufacturers recommendation and as approved by the District. The degree of bevel shall be approved for the type of pipe being installed.
4. P.V.C. Tracing Wire. All P.V.C. pipe shall be installed with a 12 gauge solid copper (P.V.C coated) tracing wire taped to the top of the pipe every 5'. Maximum tracing wire length shall be 500' without terminating in a curb stop box. Water main installations that stop short of the permanent fire hydrant tee, the tracing wire shall be terminated in a curb stop box. Splices in the tracing wire shall be kept to minimum and approved by the District. If splices are required, they shall be made with copper split bolt (Ilsco #IK-8 or approved equal) and taped with electrical tape. Curb stop boxes shall not be located in pavement.
5. Transition between D.I.P. and P.V.C. pipe shall be made with some type of ductile iron fitting.
6. P.V.C. Pipe Shipping, Handling & Storage. The front end of all pipe delivered by truck shall be covered for protection against exhaust fumes. P.V.C. pipe shall be protected from exposure to sunlight according to manufacturer's recommendations. Pipe will not be accepted for installation if discoloration is evident due to sunlight or other exposure. Pipe shall be stored in such a manner to prevent beaming the pipe.
7. Fittings & Glands. Fittings and glands shall be ductile iron as specified in Section 3A, "Ductile Iron Fittings". Ductile Iron Fittings shall be encased with Polyethylene film conforming to ANSI A21.5 (AWWA C105)

C. **Pipe Joints**

1. Push on and Mechanical. Push-on and mechanical joints including accessories shall conform to ANSI A21.11 (AWWA-C111). Bolts shall be high strength COR-10 tee head with hex nuts. The maximum deflection at push-on joints and/or mechanical joints shall be 5 degrees or as recommended by the Manufacturer. Spigot bell and joints shall conform to current AWWA Standards.
2. Flanged. Flanged joints shall meet the requirements of ANSI A21.15 (AWWA C115) or ANSI B16.1
 - a. Gaskets - All flanged joints shall be furnished with 1/16 inch thick full face red rubber.

- b. *Bolts* - Bolts shall have American Standard heavy unfinished hexagonal head and nut dimensions all as specified in ANSI B18.2. For bolts of 1-3/4 inches in diameter and larger, bolt studs with a nut on each end are recommended. Material for bolts and nuts shall conform to ASTM A307, Grade B.
3. Internal Restrained. If an internal restrained joint system is required on the plans, all pipes, bends, tees, etc. shall be restrained push-on joint pipe and fittings utilizing ductile iron components. Restrained joint pipe shall be ductile iron manufactured in accordance with the requirements of ANSI/AWWA C151/A21.51. Push-on joints for pipe shall be in accordance with ANSI/AWWA C111/A21.11 "Rubber-Gasket Joints for Ductile-Iron Pipe and Fittings." Pipe thickness shall be designed in accordance with ANSI/AWWA C150/A21.50 "Thickness Design of Ductile-Iron Pressure Pipe," and shall be based on laying conditions and internal pressures as stated in the project plans and specifications. All restrained joint pipe and fittings shall be boltless, flexible and capable of deflection after installation. Restrained joint pipe and fittings shall be U.S. Pipe's TR FLEX restrained joint system, American's Flex-Ring or pre-approved equal. Restraint of field cut pipe shall be provided with U.S. Pipe's TR FLEX GRIPPER® Ring, TR FLEX Pipe field weldments or pre-approved equal. Method of restraining and laying schedule shall be approved by the District prior to the start of the project. Manufacturer installation instructions shall be followed. Restrained joints shall be capable of withstanding a maximum joint pressure of 250 psi. unless otherwise noted.

Mechanical joints with retainer gland and Field Lok® gaskets are not acceptable unless otherwise specified (note: exception for valves).

4. Restrained. If a restrained joint system is required on the plans, all pipes, bends, tees, etc. shall be restrained with an approved system.
- a. The Field Lok®, Field Lok 350®, Fast-Grip®, or approved equal pipe gaskets shall develop a wedging action between pairs of high-strength stainless steel elements spaced around the gasket and shall meet the material requirements of ANSI/AWWA C111/A21.11. Restrained joints shall be capable of withstanding a maximum joint pressure of 250 psi. unless otherwise noted.
- b. The Megalug Series 1100®, MJ Field Lok® or approved equal restraint devices shall consist of multiple gripping wedges incorporated into a follower gland meeting the applicable requirements of ANSI/AWWA C110/A21.10. Gland body, wedges and wedge actuating components shall be cast from 65-45-12 ductile iron. The restraining system shall be rated in accordance with the performance requirements of ANSI/AWWA C111/A21.11 Rubber Gasket Joints for Ductile Iron Pressure Pipe and Fittings. Restrained joints shall be capable of withstanding a maximum joint pressure of 250 psi. unless otherwise noted.
5. Bonded Joints. Ductile Iron Joints and pipe fittings joints shall have approved type bonded joints. All joints shall be electrically bonded to provide electrical continuity across all joints of pipe: all fittings and specials, except where "insulated" flange joints are required or ordered.

- a. On pipe sizes up to and including 16-inch in diameter, one (1) "set" of bonding connectors shall be installed at the top of each pipe/fitting. On pipe sizes 24-inch and larger, two (2) "sets" of bonding connectors shall be installed, one (1) set each at twelve (12) inches clockwise and counterclockwise from the top of each pipe/fitting joint.

3. **FITTINGS**

- A. **Ductile Iron Fittings.** Ductile Iron Compact Fittings and accessories shall conform to AWWA C153 and Full Body Fittings - and accessories to AWWA C110. Bolts and nuts shall be high strength, corrosion resistant alloy, such as "Cor-Ten" or approved equal.

1. **Working Pressures.** All fittings and accessories shall be Ductile Iron, rated for a minimum of 250 psi working pressure or as specified herein. The fittings and accessories shall be new and unused. (NOTE: Certain areas of the District's service area require materials used, to be of a higher working pressure than 200 psi.)
2. **Coating and Lining.** The fittings shall be coated outside with a bituminous coating in accordance with ANSI A21.10 (AWWA C110) and lined inside with cement mortar and seal coated in accordance with ANSI A21.4 (AWWA C104).
3. **Fittings and Glands.** All pipe fittings shall be mechanical joint fittings unless specified elsewhere. Mechanical joints shall conform to AWWA C111.
4. **Polyethylene Encasement.** Ductile Iron Fittings shall be encased with polyethylene film conforming to ANSI A21.5 (AWWA C105)

- B. **Joints**

1. **Mechanical.** Mechanical joints including accessories shall conform to ANSI A21.11 (AWWA C111). Glands shall be ductile iron. Bolts shall be high strength COR-10 tee head with hex nuts.

4. **POLYETHYLENE WRAP**

All ductile iron pipe, fittings, valves, and fire hydrant leads shall be polyethylene wrapped, installed according to the current edition of AWWA C105. Ductile iron fittings, valves, and fire hydrant leads used in the installation of P.V.C. pipe shall be included.

- A. **Material.** Polyethylene wrap shall be 8-mil thickness low-density film or 4-mil thickness high-density cross-laminated polyethylene tube per AWWA C105 and shall be blue in color.
- B. **Color.** Polyethylene wrap shall be blue in color
- C. **Installation.** The contractor shall cut the roll in tubes 2 feet longer than a standard length of pipe. Each tube shall be slipped over the length of pipe, centering to allow a one foot overlap on each adjacent pipe section. After the lap is made, slack in the tubing shall be

taken up for a snug fit and the overlay shall be secured with polyethylene tape.

Pipe shall not be wrapped and stored on site for any period of time, but wrapped and immediately placed in the trench, fittings shall be wrapped prior to installing blocking or pads. (see Standard Drawing #104) Polyvinyl chloride pipe requires no wrap. Odd shaped appurtenances such as valves, tees, fittings, and other ferrous metal pipeline appurtenances shall be wrapped by using a flat sheet of polyethylene. Wrapping shall be done by placing the sheet under the appliances and bringing the edges together, folding twice, and taping down.

5. **FIRE HYDRANTS**

- A. **Description.** The Contractor shall provide all labor, materials, tools, and equipment required to furnish and install in good workmanlike manner all fire hydrants complete and ready for service where shown on the plans or where directed by the District and as specified herein.
- B. **Fire Hydrants.** Fire hydrants shall conform to AWWA C502. Hydrants shall conform to the Standards of the Northern Kentucky Water District and as shown on the plans. All fire hydrants shall have auxiliary valves for isolating water flow to the hydrant. All fire hydrants and auxiliary valves shall be positively locked to the water main by restrained joints, hydrant adapters, or other approved method. Hydrants shall be designed to 200 psi working pressure and shall be shop tested to 300 psi hydrostatic pressure with the main valve both open and closed. The barrel shall have a breakable safety section and/or base bolts just above the ground line.

Hydrants shall have a main valve opening of 5 1/4 inches, a 6 inch mechanical joint inlet to be suitable for setting in a trench 3' 6" deep minimum, and shall be the traffic style hydrant so that the main valve remains closed when the barrel is broken off. Hydrants shall have a dry top and shall be self draining, when the main valve is closed. Self draining hydrants shall drain to dry wells provided exclusively for that purpose. Hydrant drains shall not be connected to storm or sanitary sewers. Hydrants located generally in the Covington System and other areas determined by the District (flood zones) shall have all drain holes plugged prior to installation. Hydrants shall be rotatable in a minimum of eight (8) position in 360 degrees. All hydrants shall have two (2)- two and one half (2 1/2) inch hose nozzles and one (1) steamer or pumper connection threaded to conform to Northern Kentucky Water District Standards: steamer nozzle shall be National Standard Thread and 2 1/2" outlets shall be Northern Kentucky Water District Standard Thread (Old Cincinnati Thread). The operating nut and the nuts of the nozzle caps shall be square in shape, measuring one (1) inch from side to side. Hydrant body shall be painted yellow for areas designed for 150 psi working pressure and red for areas in excess of 150 psi.

All hydrants shall be right hand open, clockwise, except in certain areas of Campbell Co. as specified in Standard Drawings and shall have a direction arrow of operation cast into the dome of the hydrant. Installation per Standard Drawing #109.

- C. **Installation.** The installation of fire hydrants shall be in conformance with "Mains Installation" section, paragraph "Setting Hydrants".

- D. **Polyethylene Encasement.** Fire hydrant tee, anchoring pipe and part of the fire hydrant shoe shall be encased with Polyethylene film conforming to ANSI A21.5 (AWWA C105). (See Standard Drawing #109)

6. **VALVES**

- A. **Description.** The Contractor shall provide all labor, materials, tools, and equipment required to furnish and install in good workmanlike manner all valves and accessories complete and ready for service where shown on the plans or where directed by the District and as specified herein.
- B. **Gate Valves.** Gate valves shall conform to AWWA C509 or C515 and shall be ductile body, resilient wedge, non-rising stem with rubber "O" ring packing seals. All external dome and packing bolts shall be stainless steel. The valves shall open by turning counter-clockwise. All valves shall have openings through the body of the same circular area as that of the pipe to which they are attached. Valves shall have mechanical joint ends unless otherwise shown on the plans or directed by the District. All valves shall be designed for a working pressure of 250 pounds per square inch (PSI) unless otherwise noted on the plans or in the "Supplemental Specifications". An extension stem shall be furnished if required, to bring the operating nut within 3-1/2 feet of finished grade. Extension stems shall be securely fastened to the valve stem. The Contractor shall make all valves tight under their working pressures after they have been placed and before the main is placed in operation.
- C. **Tapping Sleeves and Valves.** Tapping sleeves and valves shall be designed for a working pressure of 250 psi. The tapping sleeve together with the tapping valve shall be tested at 250 psi for visible leakage and pressure drop before the main is tapped. Tapping sleeve and valve used in high pressure areas shall be tested at 350 psi.
1. **Tapping Sleeves.** Tapping sleeves shall be two piece with mechanical joint type ends, and be so designed as to assure uniform gasket pressure and permit centering of the sleeve on the pipe.
 2. **Tapping Valves.** Tapping valves shall have a flange on one end for bolting to the tapping sleeve and a mechanical joint type end connection on the outlet with slotted standard flange or other adapters for connection to the tapping machine. All external dome, flange and packing bolts shall be stainless steel. The valves shall open by turning counterclockwise. Tapping valves shall conform to AWWA C509.
- D. **Valve Boxes.** All valves shall be provided with valve boxes. Valve boxes shall be of standard, adjustable, heavy duty cast iron extension type, two piece, 5 1/4 inch shaft, screw type, and of such length as necessary to extend from valve to finished grade, Tyler #562-S, Tyler #564-S or approved equal. Valve box cover shall be stamped "Water". Tops shall be set at final established grade.
- E. **Butterfly Valves.** Unless otherwise specified valves 16 inches and larger shall be butterfly valves rated at 250 psi working pressure and conform to the applicable portions

of AWWA Standard C504, latest edition.

1. Body. The valves shall be AWWA Class 250B designed for tight shut-off against a differential pressure of 250 psi. Valve bodies shall be constructed of ductile iron. Two trunnions for shaft bearing shall be integral with the valve body. The valves and appurtenances shall be suitable for buried service.
2. Ends. Valves shall have mechanical joint ends and shall be furnished with high strength COR-10 tee head with hex nuts, ductile iron glands, and rubber gaskets for each mechanical joint end.
3. Discs. Valve discs of cast steel, fabricated steel, or cast bronze are not acceptable.
4. Seats. Seats bonded on the discs are not acceptable.
5. Shaft Seals. If stuffing boxes are utilized for shaft seals they shall be constructed of cast iron, ASTM A126. Gland assemblies shall be of cast bronze, ASTM B132. The packing gland shall be housed in a solid walled cast iron, ASTM A48, Class 40 one piece structure or equal.
6. Operators. The valve operating mechanism shall be for counterclockwise opening. There shall be no external moving parts on valve or operator except the operator input shaft. Input shaft is to be operated by a 2 inch square operating nut. Maximum required input force on the operator shaft to open and close the valve shall be 40 pounds. The total number of turns applied to the operating nut required to completely open the valve from a completely closed position shall not be less than twice the normal valve diameter. An extension stem shall be furnished to bring the operating nut within 3 1/2 feet of the finished grade. Extension stems shall be securely fastened to the valve stem.

- F. **Air Release and Vacuum Valves**. Air release valves shall be constructed at high points in the water line as indicated on the plans. These valves shall permit the air in the pipeline to escape as the pipeline fills and allows the air to re-enter as the line empties. The air relief vent of automatic air release valves, where practical, may be extended to a distance of at least 1 foot above the grade and installed with a screened, downward facing elbow. Manually operated air release valves shall include a camlock-type coupling and waste valve. These valves shall be APCO Air Release Valves Model #200-A or approved equal, 250 psi working pressure. 8" and smaller water mains, tap size and piping shall be 3/4", 12" water main - 1", & 16" and larger water main - 2". Temporary taps of suitable size may be required at certain points on the water main for the release of air for filling and/or flushing purposes. Temporary taps will be removed and plugged after use. Refer to Standard Drawing #106 for reference. Materials for air release valves will be supplied by the District.

7. **STEEL CASING PIPE**

Casing pipe shall be steel pipe with a minimum yield strength of 35,000 psi with a minimum wall thickness as listed below:

Nominal Diameter Casing Pipe	Normal Wall Thickness	Nominal Diameter Casing Pipe	Normal Wall Thickness
Under 14'	0.251"	26"	0.438"
14" & 16"	0.282"	28" & 30"	0.469"
18"	0.313"	32"	0.501"
20"	0.344"	34" & 36"	0.532"
22"	0.375"	38", 40", & 42"	0.563"
24"	0.407"	48"	0.626"

The inside diameter of the casing pipe shall be at least four (4) inches greater than the outside diameter of the carrier pipe joints. Steel casing sections shall be connected by welding, conforming to AWWA C206.

Adequate manufactured pipe spacers shall be installed to ensure that the carrier pipe is adequately supported in the center of the casing pipe throughout it's length, particularly at the ends. There shall not be any metallic contact between the casing and carrier pipe. Manufactured pipe spacers shall be installed per manufacture's installation requirements. Casings shall have both ends sealed up in such a way as to prevent the entrance of foreign material. See Standard Drawing #114 for installation details.

8. **PIPE, VALVE, HYDRANT PRESSURE REGULATOR PIT AND METER SETTING INSTALLATION**

- A. **Pipe Laying.** Pipe shall be laid with bell ends facing in the direction of laying, unless otherwise directed by the District. After placing a length of pipe in the trench the spigot end shall be centered in the bell and the pipe forced home. All pipe shall be laid with ends abutting and true to line and grade. Deflection of pipe joints in excess of the manufacturer's recommendations will not be permitted. A watertight pipe plug or bulkhead shall be provided and used to prevent the entrance of foreign material whenever pipe laying operations are not in progress.
- B. **Pipe Cutting.** The cutting of pipe for installing valves, fittings, or hydrants shall be done in a neat and workmanlike manner without damage to the pipe or lining. The end shall be smooth and at right angles to the axis of the pipe. Flame cutting of metal pipe by means of an oxyacetylene torch shall not be permitted. All pipe cutting shall be at the Contractor's expense.
- C. **Push-On Joints.** The surfaces with which the rubber gasket comes in contact shall be thoroughly cleaned just prior to assembly. The gasket shall then be inserted into the groove in the bell. Before starting joint assembly, a liberal coating of special lubricant shall be applied to the spigot end. (Special lubricant shall be suitable for use in potable water) With the spigot end centered in the bell, the spigot end is pushed home. Insertion of spigot into PCV type pipe bell should be inserted until the reference mark is flush with the end of the bell. Over insertion of the pipe is not recommended per the manufacturer.

- D. **Mechanical Joints.** Mechanical joints for pipe require that the spigot be centrally located in the bell. The surfaces with which the rubber gasket comes in contact shall be thoroughly cleaned just prior to assembly. The clean surfaces shall be brushed with a special lubricant just prior to slipping the gasket over the spigot end and into the bell. (Special lubricant shall be suitable for use in potable water) The lubricant shall also be brushed over the gasket prior to installation to remove the loose dirt and lubricate the gasket as it is forced into its retaining space. P.V.C. pipe spigot ends shall be field cut smooth and at right angles to the axis of the pipe for installation in mechanical joint fittings. Bolt torque shall be per the manufacturer's recommendations.
- E. **Setting Valves.** Valves shall be set on a firm solid concrete block foundation so that no load will be transferred to the connecting pipe. Valves in water mains shall, where possible, be located on the street property lines extended, unless otherwise shown on the plans. A valve box shall be provided for every valve. The valve box shall not transmit shock or stress to the valve and shall be centered and plumb over the operating nut of the valve. The box cover shall be set flush with the surface of the finished pavement unless otherwise shown. All valves boxes with the exception of isolating valves for fire hydrants that are located in non-paved areas shall have a minimum of 2' by 2' by 4" concrete pad as shown in Standard Drawing No. 105, unless a smaller pad is approved by the District.
- F. **Setting Hydrants.** Hydrants shall be located as shown on the plans or as directed by the District. The location shall provide complete accessibility and minimize the possibility of damage from vehicles or injury to pedestrians. All hydrants shall stand plumb with the pumper nozzle facing the curb. Hydrant shall be set to the established grade, with the traffic flange within 4" above final grade in accordance to Standard Drawing No. 109. Each hydrant shall be controlled by an independent gate valve with valve box. All valves used for hydrant control shall be anchored to the branch tee.
- G. **Thrust Blocking.** All bends over five (5) degrees, plugs, caps, and tees shall be securely blocked against movement with concrete thrust blocks placed against undisturbed earth in accordance with Standard Drawing No. 104. All thrust blocks shall be inspected and approved by the District prior to backfilling. Water mains shall have concrete thrust block at all pipe intersections and changes of direction to resist forces acting on the pipeline. All concrete thrust blocks shall be poured in such a manner that the bolts can be replaced without disturbing the blocking.

All caps or plugs used in mains to undergo hydrostatic test shall be properly installed and blocked in advance of testing mains. All caps or plug installations shall be approved by the District representative before the main is subjected to the pressure test.

1. **Concrete Blocking.** Concrete blocking shall be K.D.O.T. Class A concrete as specified in Section "Concrete". Blocking shall be placed between undisturbed ground and the fitting to be anchored. The area of bearing on the fitting and on the ground in each instance shall be that shown herein. The blocking shall, unless otherwise shown, be so placed that the pipe and fitting joints will be accessible for repair.
2. **Tie Rods.** If shown or specified, movement shall be prevented by attaching suitable

metal rods, clamps or restrained fittings. Steel tie rods or clamps, where permitted, shall be of adequate strength to prevent movement. Steel tie rods or clamps shall be painted with three coats of approved bituminous paint or coal tar enamel. A minimum of 3/4" welded eyebolts @ a 90 degree bend and 3/4" threaded rods may only be used with the approval of the District for temporary restraint only. Duc-Lucs are prohibited for use.

3. Restrained Fittings. Restrained fittings, where permitted, shall be subject to the approval of the District.

H. **Meter Setting Installation**

The Contractor shall furnish all labor, equipment, excavation, backfill, testing, disinfection, and restoration to install the pipe at the locations shown on the plans or as directed, in accordance with the District's Standard Specifications & Drawings, complete and ready for use. No additional payment will be made for rock excavation or for bedding required in rock excavation. It will be the Contractors responsibility to remove and reset the service at his own expense if he fails to notify and receive the approval from the District. Contractors work shall be warranted for a period of one year of the date of activation of each service (meter set date).

1. Inspection & Notification. The Contractor shall notify all affected District customers prior to interrupting water service. The Contractor shall make 48 hours notification. Routine service inspection and final inspections will be made by the District upon request by the Contractor and in a timely manner. The Contractor shall provide the District 24 hours notification for inspection by the District. It is the Contractors responsibility to post "No Parking" signs and safety devices.
2. Materials. The District shall furnish to the Contractor the materials necessary to install the meter setting and water service lines. This shall include: Lid & ring, meter vault, piping, yoke bar, double yoke bar, angle valve, yoke ell, couplings, corporation, tapping saddle, extension ring.

The Contractor shall be responsible for pickup of materials at the District's designated location. The Contractor will be responsible to the District for materials lost, stolen, or damaged while in his possession. The Contractor shall return all unused materials, which includes scrap copper and fittings to the District. Salvaged materials are the property of the District and shall be returned to the District. The materials necessary to do restoration will not be provided under this contract item but shall be obtained from a pre-approved source.

3. Installation of Service Lines. The Contractor shall be familiar with copper piping, fittings and connections, and have available equipment to work with said materials. No sweat type fittings shall be permitted. Service line shall be installed as shown on the plans or as directed by the District. The Contractor shall excavate whatever material encountered. The service lines shall be installed using boring and jacking or open cut (as specified on the plans) at the depth required to clear existing and proposed sewers, but in no case shall the line be installed with less than 36 inches cover from final grade.

The trench width shall be as excavated to a maximum of 2 feet. The line shall be laid on firm soil. In rock, sufficient extra depth shall be excavated and refilled with acceptable compacted soil or bedding sand to provide a cushion for the elimination of the possibility of crushing or perforating the pipe. Connections shall be made using normal practices for water line installation and in accordance with the standards in the plans or contained herein.

- a. *Water Service Taps* – The Contractor shall maintain a minimum of 36" cover over any tap. Tapping Saddles shall not be used with ductile iron or cast iron pipe. The corporation installed into the main shall have no more than 4 threads showing between the top of the water and the bottom of the corporation unless a tapping saddle is used.
- b. *Service Lines* - The Contractor shall maintain a constant cover of 36" over any water line. Methods of pushing or jacking under the existing street must avoid bending or kinking the pipe. No open cuts of the pavement will be permitted unless pre-approved by the District. All copper shall be cut using a copper-tubing cutter. All connections shall be flared connections. No oil base or other contaminating materials will be used in lubricants, caulking and sealers. The Contractor shall be responsible for making all joints watertight.
- c. *Meter Vaults* - All meter vaults shall be located inside existing right-of-ways or water main easements of record or as directed by the District. Typically the meter vault shall sit 5' behind the back edge of curb or edge of pavement. The Contractor shall contact the customer and determine a suitable location of the setting within the above guidelines. It is the Contractor's responsibility to notify the District's Inspector if these conditions cannot be met. The District's Inspector will inspect any questionable meter setting location prior to the Contractor installing.

Meter vaults shall be set to allow the meter cover to be level with the back edge of the existing curb or the back edge of paving along roadways without curbs. It is the Contractor's responsibility to ensure that the meter vault does not settle due to poor compaction or any other reason within the Contractor's control. The Contractor at no additional expense to the District shall adjust any meter vault that sinks below grade due to poor workmanship by the Contractor to grade.

9. **TRENCH BACKFILL**

All trench backfill shall be free from cinders, refuse, organic material, boulders, rocks or other material which in the opinion of the District is unsuitable. No backfill shall be made with frozen material. Lime sand shall not be used for any backfill.

- A. **Backfill in Non-Pavement Areas.** Trench backfill in areas not directly beneath or near pavements and driveways shall be as specified in this section unless the local authority having jurisdiction or the District stipulates additional requirements.

1. **Trench Bottom Preparation.** The pipe shall be bedded on sand to achieve full pipe

barrel support. In any event not less than 3" of sand bedding shall be used.

2. Backfill to 12" Over Pipe Barrel. All trench excavations shall be backfilled immediately after pipe is laid with the exception of thrust blocks. Compacted sand or bankrun material shall be used to backfill the trench from the bottom of the pipe barrel to the 12" over the pipe barrel. Backfill material shall be free from cinders, refuse, organic material, boulders, top soil, frozen material, material with a high void content, rocks 1 1/2" or larger measured in any direction, sharp stones and crushed rocks larger than 3/4", or other materials which in the opinion of the District is unsuitable. No flushing of backfill shall be permitted to achieve compaction. Clay bulkheads shall be installed as specified in Section B-5 of Trench Backfill.
3. Remaining Trench Backfill. From 12" above the pipe barrel to the surface, excavated trench material may be used as backfill material or as required by local or county authorities. No material shall be used for backfill that contains frozen earth, vegetable or organic material, debris, rocks 8" or larger measured in any direction, or earth with an exceptionally high void content.
4. Compaction. All backfill shall be placed in uniform loose layers, not to exceed 12" layers, and each layer shall be compacted to a density not less than 95 percent of the standard Proctor maximum dry density (ASTM D698) unless additional requirements are required by the local authority having jurisdiction. The backfill shall be compacted in such a manner and with appropriate equipment so that there is no pipe damage, pipe misalignment or damage to joints. No flushing of backfill shall be permitted to achieve compaction.

B. Backfill Beneath Driveways. Trench backfill beneath and within five (5) feet of driveways shall be as specified in this section.

1. Trench Bottom Preparation. The pipe shall be bedded on sand to achieve full pipe barrel support. In any event not less than 3" of sand bedding shall be used.
2. Backfill to 12" Over Pipe Barrel. All trench excavations shall be backfilled immediately after pipe is laid with the exception of thrust blocks. Compacted sand or bankrun material shall be used to backfill the trench from the bottom of the pipe barrel to the 12" over the pipe barrel. Backfill material shall be free from cinders, refuse, organic material, boulders, top soil, frozen material, material with a high void content, rocks 1 1/2" or larger measured in any direction, sharp stones and crushed rocks larger than 3/4", or other materials which in the opinion of the District is unsuitable. No flushing of backfill shall be permitted to achieve compaction. Clay bulkheads shall be installed as specified in Section B-5 of Trench Backfill.
3. Granular Backfill. When backfilling under pavements, driveways, or as directed by the District, granular material as specified shall be used in place of the excavated material. The granular backfill shall be placed from 12 inches from the top of pipe to 6 inches below pavement subgrade level in uniform 6 inch loose layers and each layer shall be compacted to a density not less than 95 percent of the standard Proctor maximum dry density (ASTM D698). The backfill shall be compacted in such a manner and with

appropriate equipment so that there is no pipe damage, pipe misalignment or damage to joints. No flushing of backfill shall be permitted to achieve compaction.

4. Trench Backfill to Subgrade. The top 6 inches of the trench backfill, immediately below pavement subgrade level, shall be crushed limestone or dense grade aggregate compacted in the same manner and to the same density at the granular backfill.
5. Remaining Trench Backfill to Final Grade. From subgrade to final grade, asphalt, concrete or other paving/surface shall be placed to match the existing pavement/surface conditions.
6. Bulkheads. When a granular bedding is provided in rock or when granular backfill is required, the Contractor shall place bulkheads of clay soil across the trench at 100 foot intervals to resist the movement of groundwater through the granular material. Such bulkheads shall be carefully compacted and shall extend approximately 3 feet in a direction parallel to the pipe and shall extend from the bottom of the trench to a point 4" below final grade level.
7. Surface Conditions. The trench surface shall be periodically attended to during the course of the contract. The trench surface shall be maintained in a safe condition and shall not interfere with natural drainage.

C. **Backfill Beneath Pavement.** Trench backfill beneath roadway pavements, or as directed by the District shall include flowable fill as specified in this section.

1. Backfill to 12 Inches Over pipe Barrel. The pipe shall be bedded on sand so that the pipe barrel has full and continuous support. All trench excavations shall be backfilled immediately after pipe is laid. Compacted sand or bankrun shall be used to backfill the trench from the bottom of the pipe barrel to 12 inches above the top of the pipe barrel. The sand or bankrun shall be placed in uniform 6 inch loose layers and each layer compacted to a density not less than 95 percent of the standard Proctor maximum dry density (ASTM D698) in such a manner and with appropriate equipment so that there is no pipe damage, pipe misalignment or damage to joints so as to eliminate the possibility of settlement, pipe misalignment, or damage to joints. The sand or bankrun shall be free from cinders, refuse, organic material, boulders, rocks, or other material which in the opinion of the District is unsuitable. No backfill shall be made with frozen material.
2. Trench Backfill to Subgrade. From 12 inches above the pipe barrel to subgrade, "**Low Strength Mortar Backfill Material**" (Flowable Fill, K-Crete) shall be used as backfill material. The Low Strength Mortar Mix shall meet the current Ky. Dept. of Highways's "Standard Specifications for Road & Bridge Construction". The Low Strength Mortar Mix shall have sufficient drying time (per manufacturer's recommendation) before the final layer of backfill is applied.
3. Remaining Trench Backfill to Final Grade. From subgrade to final grade, asphalt, concrete or other paving/surface shall be placed to match the existing pavement/surface conditions. All joints shall be properly seal with an approved

material.

4. Testing of Trench Backfill. Testing of backfill shall be at the request of the District and to the specifications of the District and at the cost of the Contractor.

10. **TEMPORARY STREET & ROADWAY RESTORATION**

- A. **Traffic-Bound Base Course.** For all trenches where replacing streets and/or driveways is required, the Contractor shall maintain at his own expense a traffic- bound course of a minimum of 6" traffic-bound gravel and 4" of temporary hot asphalt or cold patch asphalt when hot mix is not available in a safe and passable condition until the trenches are ready for final resurfacing. The traffic-bound base course shall be compacted to a density not less than 95 percent of the standard Proctor maximum dry density (ASTM D698).
- B. **Maintenance of Temporary Street Restoration** Temporary street restoration areas shall be maintained in a safe condition at all times. There shall be no loose materials, depressions, drop-offs or any other deficiencies in the temporary pavement. If said deficiencies exist they shall be immediately corrected by the Contractor.

11. **FINAL RESTORATION OF STREET & ROADWAYS**

- A. **Scope.** This section covers the restoration of concrete and asphaltic concrete pavement, driveways, sidewalks and other surface construction removed or damaged during the progress of the work.
- B. **General.** Except as otherwise specified, indicated on the drawings, or covered with other surface treatments, all pavement, driveways, curbs/gutters, and sidewalks which are removed or damaged during the progress of the work shall be restored to its original or better condition by the Contractor. All restoration work shall be subject to acceptance by the property owner, agency having jurisdiction thereof, and the District. Unless otherwise specified, all material used for restoration work shall be new.

At least five days in advance of pavement and curbs/gutter replacement, the Contractor shall notify the District and the authority having jurisdiction thereof of the proposed work. All street work shall be subject to acceptance by the authority having jurisdiction thereof.

Crushed limestone, bituminous materials or other materials used in the resurfacing of streets, shall meet the current requirements of the Standard Specifications of the Kentucky Department of Highways.

Sub-grades shall be thoroughly compacted to at least 95 percent of maximum density at optimum moisture content as determined by ASTM D698. In addition, the stability of sub-grades shall be such that when materials for construction are deposited on the sub-grade no rutting or displacement of the subgrade by material hauling vehicles will occur.

Governing Standards. Except as otherwise specified or indicated, materials, equipment, details, and construction methods shall comply with the applicable provisions of the local, county and state ordinances and regulations. Requirements for surface restoration and

materials specified herein are the minimum requirements for compliance with the Contract Documents. If requirements of the authority having jurisdiction over surface restoration are greater than those presented herein, Contractor shall comply with those requirements at no additional cost to the District.

Weather Limitations. Minimum temperature under which asphaltic concrete pavements may be constructed shall be as stipulated in the governing standards.

If weather conditions do not permit replacement of permanent surfacing, a temporary cold mix asphaltic concrete surfacing shall be provided and maintained in a smooth and driveable condition. Cold mix material shall be replaced with the specified hot mix asphaltic concrete when weather conditions permit. No materials shall be placed when the underlying surface is muddy, frozen, or has frost or water thereon.

Equipment and facilities for measuring, mixing, heating, transporting, spreading, compacting, and other operations shall be in accordance with the applicable requirements of the governing standards. Improved or modernized equipment which will produce results equal in quality to those which would result from the specified equipment will be considered for use. All equipment and facilities shall be acceptable to the District.

- C. **Materials.** The sources of materials shall be submitted for review by the District. Except as modified herein, materials shall conform to the requirements of the Kentucky Department of Transportation standards.

Contractor shall submit to District for approval documentation certifying materials to be used for surface restoration are in compliance with the requirements herein.

- D. **Asphaltic Concrete Pavement.** Except as modified herein, existing asphaltic concrete pavement which is removed or damaged during the progress of the work shall be replaced with new pavement to match, as closely as possible, the adjacent existing pavement.

Asphaltic concrete pavements shall be constructed as specified, and in accordance with the Kentucky Department of Transportation standards.

Finished surfaces shall match existing surfaces as appropriate.

Bituminous mixtures shall be spread and finished by hand methods only where machine methods are impractical as determined by the District. Hand placed mixtures shall not be cast or otherwise manipulated in such manner that segregation occurs.

Each lift of the base course shall be uniformly compacted to a density of not less than 94 percent as determined by ASTM D2950. The surface course shall be uniformly compacted to a density of not less than 96 percent as determined by ASTM D2950.

Where asphaltic concrete pavement is to be replaced, the subgrade shall be prepared as herein before specified and this subgrade shall comprise the base course upon which the concrete sub-slab and/or bituminous pavement shall be laid.

Where no concrete sub-slab is required, the subgrade or base shall be thoroughly cleaned and broomed and a prime coat of medium tar (RC-3) shall be uniformly applied at a rate of 0.20 to 0.25 gallons per square yard. Where Portland cement concrete sub-slab is required the prime shall be applied at the rate of approximately .05 gallons per square yard. The prime shall be applied by a pressure distributor or other approved pressure spray method.

When the prime coat has become tacky but not dry and hard, a bituminous surfacing consisting of class "I" asphaltic concrete shall be placed, spread, finished and compacted in accordance with the current Standard Specifications of the Kentucky Department of Highways. Compacted thickness of asphaltic concrete pavement shall be as directed or as shown on the plans. All asphaltic concrete joints shall be properly seal with an approved material in accordance with the current Standard Specifications of the Kentucky Department of Highways (hot-poured elastic joint sealer).

- E. **Concrete Pavement.** Existing concrete pavements which are removed or damaged during the progress of the work shall be replaced to match, as closely as possible, the adjacent existing concrete pavement. Concrete, materials, and workmanship shall conform to the applicable requirements of the concrete section.

Where concrete pavement is to be replaced or is required under bituminous pavement replacement, it shall conform to the existing pavement and/or the District's instructions , (not less than 6' (six inches) thick) and accomplished with K.D.O.T. Class "A" concrete. Concrete curbs shall conform to existing concrete curbs. All joints shall be properly sealed with an approved material.

If concrete is removed to within 2 feet or less of an existing construction joint, the additional pavement to the joint shall be removed and replaced with new concrete.

- F. **Aggregate Base Course.** Aggregate base course shall be used as a base, where required by the governing regulations. The base course shall be constructed in accordance with the governing standards. Mixing of the base course shall be by the central plant method or the road mix method.
- G. **Protection.** The Contractor shall protect all adjacent concrete and masonry so that no damage will occur as the result of subsequent construction operations. All damage or discoloration shall be repaired to the satisfaction of the District.

Special care shall be taken to prevent bituminous materials from spraying or splashing. Adjacent construction shall be protected by covering with suitable fabric or paper.

- H. **Miscellaneous Repair Work.** All existing items and construction, whether or not indicated by the drawings but which are removed or damaged as a result of construction operations under this contract, whether within or outside of public right-of-way, shall be repaired or replaced unless otherwise required by the drawings.

Repair or replacement shall be with material similar to those existing and shall, in each

case, restore the item to its original or better condition as acceptable to the District and the District thereof.

Mailboxes repaired or replaced as part of the project shall be installed at a height of 41 to 42 inches measured from the pavement surface to the bottom of the box. The front face of the mailbox shall be 6 to 8 inches behind the edge of the pavement.

- I. **Untreated Surface.** Where the existing surface is untreated gravel or stone, the Contractor shall replace the surfacing that is disturbed or removed with crushed limestone to at least the thickness of the existing pavement. The crushed limestone shall be placed and compacted in the same manner as traffic-bound base course. Prior to the final acceptance, the Contractor shall fill all depressions with compacted crushed limestone, and shall thoroughly compact and grade to match existing surface.

12. **CLEAN UP**

After a section of main is tested and accepted, the ground surface shall be cleaned of all surplus material including stone, broken pipe, construction material, and all other debris, to the satisfaction of the District.

13. **STORAGE AND DISPOSAL OF EXCAVATED MATERIAL**

Where the Contractor finds it necessary to remove excavated material to some other location, care should be taken not to overload trucks, which would in turn spill material out upon highways. Any such material spilled upon highways shall be immediately cleaned up from the location and disposed of.

Where it is necessary and is agreeable with public and private property owners, excavated materials may be temporarily piled in the streets or roadways, however, one lane of traffic must be maintained at all times. By no means will the Contractor be permitted to store excavated materials in streets or roadways over night.

All excavated material and all construction materials used in prosecution of the work shall be deposited so as not to endanger the Work, create unnecessary annoyance to the public, or interfere with natural drainage courses. During the progress of the work, all material piles shall be kept trimmed up and maintained in a neat, workmanlike manner.

After excavated materials have been removed, all hard surface streets or roadways shall be thoroughly cleaned and left free of dirt and dust. Streets or roadways which do not have hard surfaces must be restored to their original condition at the expense of the Contractor.

Disposal of excess excavated material from trench excavations or site restoration shall be disposed from the site at the Contractor's expense. Broken concrete and other debris resulting from pavement or sidewalk removal, excavated rock in excess of the amount permitted to be installed in trench backfill, debris encountered in excavation work, and other similar waste materials shall be disposed from the site at the Contractor's expense. The Contractor shall be responsible for procurement of its own dump sites, and

maintaining that site at its own expense.

Confirm and comply with all applicable environmental, labor, health and safety, and all other Laws and Regulations related to demolition, removal, hauling, disposal and all other handling of unsalvageable equipment, supplies, waste, debris and other material.

14. **TRENCH MAINTENANCE**

The Contractor shall be responsible for the condition of the trenches for a period of two years from the date of the "Certificate of Substantial Completion" issuance.

15. **RESTORATION, GRADING AND SEEDING**

The Contractor shall provide all labor, materials, tools, and equipment required to grade, fertilize, seed, and mulch in good, workmanlike manner the areas where shown on the plans or where directed by the District and as specified herein.

A. **Materials**

1. **Topsoil.** Topsoil shall not contain more than 40% clay in that portion passing a No.10 sieve and shall contain not less than 5% or more than 20% organic matter as determined by loss on ignition of samples oven dried to constant weight at 212 degrees Fahrenheit.
2. **Fertilizer.** Fertilizer shall be lawn or turf grade 12-12-12.
3. **Seed**
 - a. *Urban Areas* - All areas to be seeded which are considered to be urban in character, and any area in front of a residence, business or commercial, shall be seeded with the following mixture: (% are by weight)
 - 40% Fine Lawn Turf-Type Fescue
 - 40% Creeping Red Fescue (*Festuca rubra*)
 - 20% Annual Ryegrass (*Lolium multiflorum*)
 - b. *Right-of-way and Easements* - All areas in right-of way or in easements adjacent to right-of-away other than urban areas, shall be seeded with the following mixture: (% are by weight)
 - 30% Fine Lawn Turf-Type Fescue
 - 50% Kentucky 31 Fescue (*Festuca arundinaces* Var. Ky.31.)
 - 20% Annual Ryegrass (*Lolium multiflorum*)
 - c. *All Other Areas* - All other areas shall be seeded with the following mixture: (% are by weight)
 - 90% Perennial Ryegrass (*Lolium perenne*)
 - 10% Alsike Clover (*Trifolium hybridum*)
4. **Mulch.** Mulch shall be straw reasonably free of weed seed and any foreign materials

which may affect plant growth. Other materials may be used if approved by the District.

5. Asphalt Emulsion. Emulsion shall be nontoxic to plants and shall conform to AASHTO M140 or AASHTO M208.

B. **Installation**

1. **Preparation of Seed Bed**

- a. *Topsoil* - If suitable topsoil is available as part of the excavated material it shall be removed, stored and used to backfill the top 4 inches of the excavation. All grass, weeds, roots, sticks, stones, and other debris are to be removed and the topsoil carefully brought to the finish grade by **hand raking**.
- b. *Non-topsoil* - If there is no suitable topsoil available on any part of the work or if there is a deficiency of suitable topsoil, the trench backfill, except in urban areas shall be used as a seed bed. After the backfill has been given a reasonable time to settle, it shall be graded off to the finish grade and harrowed to a depth of 3 inches. All grass, weeds, roots, sticks, stones, and other debris are to be removed and the soil carefully brought to the finish grade by **hand raking**.
- c. *Urban Areas* - If there is no topsoil available on any part of the work or is there is a deficiency of suitable topsoil, the Contractor shall furnish 4 inches of topsoil to be used as a seed bed in all urban areas and any area in front of a residence.

2. **Fertilizing**. Fertilizing shall be uniformly applied to all areas to be seeded at the rate of 1 pound per 100 square feet in topsoil or 2 pounds per 100 square feet in non-topsoil. The fertilizer shall be thoroughly disked, harrowed or raked into the soil to a depth of not less than 2 inches. Immediately before sowing the seed, the Contractor shall rework the surface until it is a fine, pulverized, smooth seed bed, varying not more than 1 inch in 10 feet.

3. **Seeding**. Immediately after the preparation and fertilization of the seed bed the District shall inspect and approve the site prior to seeding. The seed shall be thoroughly mixed and then evenly sown over the prepared areas at the rate of 3 pounds per 1000 square feet for urban, right-of-way and easement areas and a rate of 2 pounds per 1000 square feet for all other areas. Seed shall be sown dry or hydraulically. After sowing, the area shall be raked, dragged, or otherwise treated to cover the seed to a depth of approximately 1/4 inch.

4. **Mulching**. Within 48 hours after any given area is seeded, mulching material shall be evenly placed over all seeded areas at the rate of approximately 2 tons per acre, when seeding is performed between the dates of March 15 and October 15, and at the approximate rate of 3 tons per acre when seeding is performed between the dates of October 15 and March 15 of the succeeding year.

- a. *Emulsion* - Mulching materials shall be kept in place with asphalt emulsion applied at a minimum rate of 60 gallons per ton of mulch or by methods as approved or may be otherwise required to prevent displacement of material. Mulching which is displaced shall be replaced at once but only after the seeding or other work which preceded the mulching and which work was damaged as a result of displacement of mulching material has been acceptably repaired.

5. Maintenance. All seeded areas shall be carefully maintained and tended by the Contractor, watering as necessary to secure a good turf. Settled areas shall be filled, graded, and re-seeded. Seeded areas shall be free of weeds and other debris. The Contractor shall be responsible for the condition of the seeded areas for a period of 1 year from the date of "Final Certificate" issuance.

- C. Payment. Seeding is not a pay item and all cost related thereto shall be included in the unit price of the applicable bid item.

16. DISINFECTION AND LEAKAGE TEST

- A. Scope. This section covers the disinfection of the new water mains, fittings, temporary services and associated appurtenances. The Contractor shall provide all labor, materials, tools, equipment, and incidentals required to test the mains for watertightness and disinfect the mains as directed by the District and as specified herein. Gauges for the test shall be furnished by the Contractor.
- B. Test Section. After the main has been installed and backfilled all newly installed pipe or any valved section thereof shall be considered a test section.
- C. Witness. All tests performed for each test section shall be witnessed and approved by the District before acceptance. In the event the Contractor performs any test without witness by the District, the Contractor will be required to test the section again in conformance with this specification at no cost to the District.
- D. General. All disinfection work shall conform to the requirements of the latest revision of ANSI/AWWA C651 and the requirements of the Kentucky Division of Water. If any State requirements conflict with the provisions of this section, the State requirements shall govern.

Water required for flushing and disinfection work will be provided as stipulated in the temporary facilities.

When it is necessary to interrupt service to water customers, each customer affected shall be notified in advance of the proposed service interruption and its probable duration in accordance with the project requirements.

- E. Disinfection Procedure. During construction or after the installation of the pipe and fittings is complete, an approved disinfection method, according to governing standards, shall be used. The disinfection solution shall be allowed to stand in the main and associated appurtenances for a period of at least twenty-four (24) hours.

During disinfection, all valves, hydrants, and service line connections shall be operated to ensure that all appurtenances are disinfected. Valves shall be manipulated in such a manner that the strong disinfection solution in the main from flowing back into the supply line. Check valves shall be used if required.

All non-disinfected fittings used for tie-ins or repairs shall be cleaned and swabbed with a liquid sodium hypochlorite disinfecting solution prior to installation.

- F. **Final Flushing.** Upon completion of chlorination but before sampling and bacteriological testing, Contractor shall remove all heavily chlorinated water from the main and temporary services by flushing with potable water at the maximum velocity which can be developed under the direction and control of the District.

The Contractor shall properly neutralize and dispose of the chlorinated water and flushing water in accordance with all applicable regulations. Contractor shall obtain all special waste disposal permits necessary.

- G. **Disposal of Heavily Chlorinated Water.** Disposal of chlorinated water will be in accordance with 401 KAR5:031. Coliform samples must be taken at connection points to existing mains, 1 mile intervals along new mains, and at all dead ends. Contractor shall apply a de-chlorinating agent to the water to be wasted to neutralize thoroughly the chlorine residual remaining in the water. (See the following table for neutralizing chemicals.) Federal, state, and local regulatory agencies should be contacted to determine special provisions for disposal of heavily chlorinated water.

Chlorine residual of water being disposed of shall be de-chlorinated by treating with one of the chemicals listed in the following table:

Pounds of Chemicals Required to De-chlorinate Various Residual Chlorine Concentrations in 100,000 Gallons of Water*

Residual Chlorine Concentration <i>mg/L</i>	Sulfur Dioxide (SO ₂)	Sodium Bisulfate (NaHSO ₃)	Sodium Sulfite (Na ₂ SO ₃)	Sodium Thiosulfate (Na ₂ S ₂ O ₃ @5H ₂ O)
1	0.8	1.2	1.4	1.2
2	1.7	2.5	2.9	2.4
10	8.3	12.5	14.6	12.0
50	41.7	62.6	73.0	60.0

* Except for residual chlorine concentration, all amounts are in pounds.

The Contractor shall provide all necessary materials, equipment and labor for applying the de-chlorinating chemical in a manner such that proper mixing and contact time of the chemical and the heavily chlorinated water is obtained for complete removal of chlorine

being flushed. The Contractor shall periodically test the flush water to verify that the chlorine residual is zero.

- H. **Chlorine Residual Tests.** Upon completion of final flushing, the District will perform chlorine residual tests to ensure the chlorine residual in the main and temporary services is not higher than that generally prevailing in the remainder of the water distribution system and is acceptable to the District.
- I. **Bacteriological Tests.** Sampling and testing of water in the main and temporary services will be performed by the District after final flushing. A standard plate count will be made by the District for each sample.
- J. **Redisinfection.** Should the bacteriological tests indicate the presence of coliform organisms at any sampling point, the main and temporary services shall be re-flushed, re-sampled, and re-tested. If check samples show the presence of coliform organisms, the main and temporary services shall be re-chlorinated at no additional cost to the District until results acceptable to the District are obtained.

Re-disinfection shall be completed by the continuous feed or by the slug method. Unless otherwise permitted, the chlorination agent shall be injected into the main and temporary services at the supply end through a corporation cock installed in the top of the pipe. All materials, equipment and labor necessary for the re-disinfection shall be supplied by Contractor at no additional cost to the District.

- K. **Hydrostatic Testing.** Hydrostatic Testing will be in accordance with AWWA C600. The water main being tested shall have all air expelled by additional flushing or installation of taps on high points in the line. The pressure of the water main shall be gradually increased to obtain a minimum pressure of 100 psi over the design pressure (250 psi minimum) at the lowest elevation point of the water main or as directed by the District. The test will be for a two (2) hour duration and will not vary by more than 5 psi. All tests performed for each test section shall be witnessed and approved by a representative of the District, in the event any test is performed without a representative of the District, the Contractor shall be required to test the section again. Leakage is defined as the amount of water used to maintain the test pressure.

17. **APPLICABLE SPECIFICATIONS & STANDARDS**

The following current specifications and standards form a part of these Specifications:

- A. **American Water Works Association (AWWA) Standards**
- B. **Northern Kentucky Water District Standard Specifications & Drawing for the Installation of Water Mains** current edition located at www.nkywater.org
- C. **"Manual of Accident Prevention in Construction"** published by the **Associated General contractors of America**
- D. **Kentucky Occupational Safety and Health Administration's "Kentucky Occupational Safety and Health Standards for General Industry"** current edition.
- E. **American National Standards Institute (ANSI)**
- F. **American Society for Testing & Materials (ASTM)**

- G. **Kentucky Division of Water Quality**
- H. **“Recommended Standards for Water Works”** current edition



NEWPORT WMR – PHASE 4

SPECIFICATIONS

NORTHERN KENTUCKY WATER DISTRICT

Newport Water Main Replacement
Phase 4 of WX 21037311
Newport, Campbell County, Kentucky

January 2025

COMPILED BY:
Northern Kentucky Water District (Owner)
2835 Crescent Springs Road
Erlanger, Kentucky 41018



S P E C I F I C A T I O N S

FOR

NORTHERN KENTUCKY WATER DISTRICT

Newport Water Main Replacement **Phase 4 of WX21037311** **Newport, Campbell County, Kentucky**

January 2025

GOVERNING BODY

COMMISSIONERS:

FRED MACKE, JR - CHAIR
JODY R. LANGE, CPA, CGMA - VICE CHAIR
DOUG WAGNER - SECRETARY
NICHOLAS WINNIKE - TREASURER
GARY E. HOLLAND - COMMISSIONER
JOSEPH J. KOESTER – COMMISSIONER

LINDSEY RECHTIN - PRESIDENT/CEO

COMPILED BY:

Northern Kentucky Water District (Owner)
2835 Crescent Springs Road
Erlanger, Kentucky 41018

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Section 00020

INVITATION TO BID

Date: January 23 & February 13, 2025

The Northern Kentucky Water District (Owner) is requesting Bids for the construction of the following Project:

**PROJECT: Newport Water Main Replacement
Phase 4 of WX21037311
Newport, Campbell County, Kentucky**

BID SUBMISSION: SEALED BIDS WILL BE RECEIVED BY THE NORTHERN KENTUCKY WATER DISTRICT (OWNER) ONLY THROUGH THE ONLINE QUEST CDN WEBSITE (www.questcdn.com)

UNTIL: Date: March 6, 2025
Time: 2:00 PM local time

At said time, and promptly thereafter, all Bids that have been duly received will be opened. Entities on the registered list of plan holders will be sent a link to attend the virtual bid opening. The public may access the virtual bid opening by emailing Cassandra Zoda at czoda@nkywater.org to get the meeting number and password.

BRIEF PROJECT DESCRIPTION: The proposed Work is generally described as follows: Construction of approximately 4,959 linear feet of 8" PVC and Ductile Iron water main, 1,129 linear feet of 6" Ductile Iron water main and 193 linear feet of 12" ductile iron water main together with the appurtenances and related work for water main replacement on portions of Joyce Avenue, Amelia Street, 21st Street, Home Street, Truesdale Road, Grandview Avenue and Clifton Avenue in Newport, Campbell County, Kentucky. The project shall be completed within 495 calendar days. Liquidated damages shall be assessed at \$500 per calendar day.

PROJECT DOCUMENTS: To view the bid documents, go to [Northern Kentucky Water District \(nkywater.org/procurement\)](http://NorthernKentuckyWaterDistrict.nkywater.org/procurement) in the section labeled "Current Procurement Items" at the top of the page and click the link to be click the link titled "Quest CDN Online Interface" redirected to the Quest CDN Electronic Bid Online Interface.

This bid is listed as Quest eBid Doc # **9497768**

The project documents may be downloaded by registering with Quest CDN online at www.questcdn.com or by calling 952-233-1632. After registration is complete, an On-Line Bid ID code must be created by clicking on "My Account", then the "User Info" tab. A prospective bidder will create this code in the designated field per requirements noted. To be considered a Plan-holder, a bidder must complete registration and download the Proposal Documents in digital form for a \$22.00 charge. There will be a charge of \$42.00 to submit a bid. Plan-holders will receive addenda and other proposal document updates via Quest CDN. Prospective bidders must be on the plan holders list through Quest CDN for a bid to be accepted.

FUNDING: This project is funded by the Kentucky Drinking Water State Revolving Fund (SRF) with federal funds provided by the Environmental Protection Agency and Kentucky Infrastructure Authority – Clean Water Program funds. The Successful Bidder and all Subcontractors will be required to conform to the Uniform Guidance Contract Requirements set forth in the Contract Documents.

BIDDER QUALIFICATIONS & AWARD: All Bids must be in accordance with the Bidding and Contract Documents. Bids will be received on a unit price and/or lump sum basis as described in the Contract Documents.

Each Bid must contain evidence of Bidder's qualifications to transact business in the State of Kentucky or covenant to obtain such qualifications prior to award of the Contract. The Bidder's Organization Number from the Kentucky's Secretary of State and principal place of business as filed with Kentucky's Secretary of State must be included where applicable.

Bid security, in the form of an electronic Bid Bond (insuring/bonding company shall be rated "A" by AM Best) in the amount of ten percent (10%) of the maximum total bid price, must accompany each Bid.

The Successful Bidder will be required to furnish a Construction Payment Bond and a Construction Performance Bond (insuring/bonding company shall be rated "A" by AM Best) as security for the faithful performance of the contract and the payment of all bills and obligations arising from the performance of the Contract.

SRF requirements (including American Iron and Steel and Davis Bacon) and provisions must be met by the Bidder and all subcontractors. SRF requires federal prevailing wage rates to be paid to all employees of the Bidder and all employees of any subcontractor.

All Bidders must comply with the President's Executive Order No. 11246 (Equal Employment Opportunity) as amended, which prohibits discrimination in employment regarding race, creed, color, sex, or national origin.

All Bidders must comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, and the Contract Work Hours Standard Act.

All Bidders, Contractors and Subcontractors must comply with 41 CFR 60-4, in regard to Affirmative Action, to ensure equal opportunity to females and minorities and will apply the timetables and goals set forth in 41 CFR 60-4.

Bidders must make positive efforts to use small, minority, women-owned and disadvantaged businesses.

Evaluation of Bids and the awarding of the final contract are subject to the reciprocal preference for Kentucky resident bidders pursuant to KRS 45A.490 to 45A.494 and KAR 200 5:400.

All Bidders must comply with OSHA (P.L. 91-596) and the Contract Work Hours and Safety Standards Act (P.L. 91-54).

The Successful Bidder and all Subcontractors will be required to conform to the labor standards set forth in the Contract Documents. This procurement is subject to Kentucky Division of Water Procurement Guidance including the Davis-Bacon Act.

Owner reserves the right to reject any or all Bids, including without limitation the right to reject any or all nonconforming, non-responsive, incomplete, unbalanced, or conditional Bids, to waive informalities, and to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of Owner to make an award to that Bidder. Owner also reserves the right to negotiate with the apparent successful Bidder(s) to such an extent as may be determined by Owner.

Small, Minority, and Disadvantaged Business Enterprises are encouraged to bid on this project.

Bids shall remain subject to acceptance for 90 days after the day of bid opening or for such longer period of time to which a Bidder may agree in writing upon request of the Owner. If a Contract is to be awarded, the Owner will give the successful Bidder a Notice of Award during the period of time during which the successful Bidder's bid remains subject to acceptance.

Award of the Contract will be made to the lowest, responsive, responsible bidder as specified in the Instructions to Bidders.

The Northern Kentucky Water District is an Equal Opportunity Employer.

SALES TAX EXEMPTION: The Contract Price shall not include sales tax for building materials, fixtures, or supplies purchased by the Successful Bidder which will be permanently incorporated into a structure or improvement to real property, or will be completely consumed, in fulfilling a construction contract for the purpose of furnishing water or sewer services to the general public under KRS 139.480. The Successful Bidder agrees to utilize Kentucky Department of Revenue Form 51A383 when making sales tax exempt purchases for the Work.

INSTRUCTIONS TO BIDDERS: For all further requirements regarding bid submittal, qualifications, procedures, and contract award, refer to the Instructions to Bidders that are included in the Bidding Documents.

Section 00100

INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS. Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof:

- a. *Bidder* - The individual or entity who submits a Bid directly to Owner.
- b. *Successful Bidder* – The lowest responsible Bidder submitting a responsive Bid to who Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award.

2. COPIES OF CONTRACT DOCUMENTS. Complete sets of Contract Documents must be used in preparing Bids; Bidder shall have sole responsibility for errors or misrepresentations resulting from the use of incomplete sets of Bidding Documents.

Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

Contract Documents are available electronically via QuestCDN. In accord with NKWD Open Record Policy, planholders may request larger plan drawings in paper form by submitting an [open records request form](#).

3. QUALIFICATIONS OF BIDDERS. Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders to perform the services in accordance with the Contract Documents. To demonstrate Bidder's qualifications to perform the Work, within five days of Owner's request Bidder shall submit written evidence such as financial data, previous experience, present commitments, and such other data as may be requested by Owner. Bidders who have not, in the Owner's opinion, had sufficient experience in the size and type of work involved may not be considered.

Each Bid must contain evidence of Bidder's qualifications to transact business in the State of Kentucky or covenant to obtain such qualifications prior to award of the Contract. The Bidder's Organization Number from the Kentucky's Secretary of State and principal place of business as filed with Kentucky's Secretary of State must be included where applicable.

Each Bidder must be registered as a plan holder with Owner via QuestCDN. There shall be no substitution of bidders without proper registration with the Owner.

SRF requirements (including American Iron and Steel and Davis Bacon) and provisions must be met by the Bidder and all subcontractors. SRF requires federal prevailing wage rates to be paid to all employees of the Bidder and all employees of any subcontractor.

All Bidders must comply with the President's Executive Order No. 11246 (Equal Employment Opportunity) as amended, which prohibits discrimination in employment regarding race, creed, color, sex, or national origin.

All Bidders must comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, and the Contract Work Hours Standard Act.

All Bidders, Contractors and Subcontractors must comply with 41 CFR 60-4, in regard to Affirmative Action, to ensure equal opportunity to females and minorities and will apply the timetables and goals set forth in 41 CFR 60-4.

Bidders must make positive efforts to use small, minority, women-owned and disadvantaged businesses.

All Bidders must comply with OSHA (P.L. 91-596) and the Contract Work Hours and Safety Standards Act (P.L. 91-54).

The Successful Bidder and all Subcontractors will be required to conform to the labor standards set forth in the Contract Documents. This procurement is subject to Kentucky Division of Water Procurement Guidance including the Davis-Bacon Act.

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE. It is the responsibility of each Bidder, before submitting a Bid, to:

- a. thoroughly examine and study the Instructions to Bidders and the Contract Documents, including any Addenda;
- b. visit the Site and become familiar with and satisfy Bidder as to the general, local, and site conditions that may affect cost, progress, performance, or furnishing of the Work;
- c. become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, performance, or furnishing of the Work;
- d. agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times and in accordance with the other terms and conditions of the Contract Documents;
- e. correlate the information known to Bidder, information and observations obtained from visits to the Site, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents;
- f. promptly give Owner written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Contract Documents and confirm that the written resolution thereof by Owner is acceptable to Bidder; and
- g. determine that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

4.01. Underground Facilities. Information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such

Underground Facilities, including Owner or others, and Owner and Engineer disclaim responsibility for the accuracy or completeness thereof, unless it is expressly provided otherwise in the Supplementary Conditions.

4.02. Additional Information. Before submitting a Bid, each Bidder may, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests, and studies and obtain any additional information and data which pertain to subsurface or physical conditions at or contiguous to the Site or otherwise, which may affect cost, progress, performance, or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents. Each Bidder shall be responsible for any claims for personal injury, death or damage to property caused by Bidder's entry on public or private property and shall defend and indemnify Owner and all other parties against any such claims.

4.03. Bidder's Representation. The submission of a Bid will constitute an incontrovertible representation and covenant by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Contract Documents, that Bidder has given Owner written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Contract Documents and the written resolutions thereof are acceptable to Bidder, and that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

5. SITE AND OTHER AREAS. The Site is identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Contract Documents.

6. INTERPRETATIONS AND ADDENDA. All questions about the meaning or intent of the Bidding Documents are to be submitted to Owner in writing. Any interpretations or clarifications that are considered necessary by Owner in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Owner as having received the Bidding Documents. Questions received less than 72 hours prior to the date for opening of Bids may not be answered. The person submitting questions shall be responsible for their prompt delivery. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

Owner will not be responsible for explanations or interpretations of the Bidding Documents or Contract Documents except as issued in accordance herewith.

7. BID SECURITY. Each Bid must be accompanied by Bid security made payable to Owner in an amount of 10 percent of Bidder's maximum Bid price and in the form of a Bid Bond (on

the form attached) issued by a surety meeting the requirements of paragraphs 5.01 and 5.02 of the General Conditions and shall be rated "A" by AM BEST.

Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may annul the Notice of Award and Bid security of that Bidder will be forfeited. Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Agreement or one day after the last day the Bids remain subject to acceptance, whereupon Bid security furnished by such Bidders will be returned.

8. CONTRACT TIMES. The numbers of days within which, or the dates by which, the Work is to be (a) Substantially Completed and (b) also completed and ready for final payment are set forth in the Agreement.

9. LIQUIDATED DAMAGES. Provisions for liquidated damages, if any, are set forth in the Agreement.

10. SUBSTITUTE OR "OR-EQUAL" ITEMS. The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "or-equal" items. Whenever it is specified or described in the Bidding Documents that a substitute or "or-equal" item of material or equipment may be furnished or used by Contractor if acceptable to Owner, application for such acceptance will not be considered by Owner until after the Effective Date of the Agreement. The procedure for submission of any such application by Contractor and consideration by Owner is set forth in the General Conditions and may be supplemented in the General Requirements.

11. SUBMITTING AN ONLINE BID. Proceed to the QuestCDN website at www.questcdn.com. You will be asked to sign into your account or create a free QUESTCDN account by clicking the 'join' link. Contact QUESTCDN at 952-233-1632 or info@questcdn.com for assistance in membership registration, downloading the project and vbid online bid submittal.

The QUESTCDN eBid Doc number for this project is: **#9497768**

To access the bid form, click the online bidding button at the top of bid advertisement. The on-line bid button will be available when the project is published and open for bidding. There is a fee of \$42.00 to submit your bid.

12. PREPARATION OF BID. In addition to the Bid Worksheet in QuestCDN, the following items are included with the Bidding Documents must be submitted via QuestCDN:

1. Bid Disclosure Form (Section 00300)
2. Certification Regarding Debarment, Suspension and Other Responsibility Matters (EPA Form 5700-49). (Section 00810 - Attachment No. 9)

3. Certification Regarding Lobbying, Certification for Contracts, Grants, Loans and Cooperative Agreements. (Section 00810 - Attachment No. 10)
4. Statement of Bidder's Qualifications (Section 00301 - Attachment No. 1)
5. Bidder's Experience Record (Section 00301 - Attachment No. 2)
6. Proposed Subcontractors (Section 00301 - Attachment No. 3)
7. Bid Security (Section 00410)
8. Non-Collusion Affidavit (Section 00460)
9. Required Notarized Affidavit for Bidders, Offerors, and Contractors Claiming Kentucky Resident Bidder Status (Section 00470)

All blanks on the Bid Disclosure Form shall be completed by printing in ink or by typewriter and the Bid signed. A Bid price shall be indicated for each lump sum bid item and/or unit price item listed therein, or the words "No Bid", "No Change", or "Not Applicable" entered.

A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.

A Bid by a limited liability company shall be executed in the name of the firm by a member (if member-managed) or manager (if manager-managed) and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown below the signature.

A Bid by an individual shall show the Bidder's name and official address.

A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Disclosure Form. The official address of the joint venture must be shown below the signature.

All names shall be typed or printed in ink below the signatures.

The QuestCDN system will require Bidders to download and acknowledge all addenda prior to submitting a Bid.

The address, email, and telephone number for communications regarding the Bid shall be shown on the Bid Disclosure Form.

The Bid shall identify whether the Bidder is a resident or nonresident bidder for purposes of Kentucky's reciprocal preference statute (KRS 45A.490 to 45A.494 and 200 KAR 5:400). If

the Bidder is claiming a “resident bidder” status as defined in KRS 45A.494(2), the Bid shall include a properly executed and notarized affidavit affirming that it meets the criteria to be considered such a resident bidder. If requested by Owner, Bidder shall also provide documentation proving such resident bidder status; failure to do so shall result in disqualification of the Bidder or contract termination.

While the Bidder should consult the applicable statutes and regulation, generally speaking, a “resident bidder” is an individual or business entity that, on the date the contract is first advertised or announced as available for bidding: (a) is authorized to transact business in the Commonwealth; AND (b) has for one (1) year prior to and through the date of the advertisement, (i) filed Kentucky corporate income taxes, (ii) made payments to the Kentucky unemployment insurance fund established in KRS 341.490, and (iii) maintained a Kentucky workers' compensation policy in effect. A “nonresident bidder” is any other individual or business entity.

13. BASIS OF BID. Bidders shall submit a Bid on the specified unit price and/or lump sum basis (as specified) for each item of Work listed in the Bid schedule. The total of all estimated prices will be determined as the sum of the products of the estimated quantity of each item and the unit and/or lump sum price Bid for the item. The final quantities and Contract Price will be determined in accordance with paragraph 11.03 of the General Conditions and as amended in the Supplemental Conditions.

Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words. Discrepancies between the QuestCDN bid worksheet and the Bid Disclosure Form shall be resolved in favor of the QuestCDN bid worksheet.

14. SUBMITTAL OF BID. A Bid shall be submitted via QuestCDN no later than the date and time prescribed and at the place indicated in the advertisement or invitation to Bid. Bidder shall assume full responsibility for timely submission of Bids. Bids will not be accepted after the time and date for receipt of Bids. Paper, oral, telephone, facsimile, email, or telegraph Bids are invalid and will not receive consideration.

15. MODIFICATION AND WITHDRAWAL OF BIDS. Prior to the bid opening, a Bid may be modified or withdrawn via the QuestCDN electronic bid service only. For a period ending 72 hours after Bids are opened, any Bidder may request the withdrawal of its Bid by filing with Owner a duly signed written notice and otherwise demonstrating by clear and convincing evidence to the reasonable satisfaction of Owner that the Bid was submitted in good faith but there was a material and/or substantial mistake in the preparation of its Bid. If the withdrawal of the Bid is approved by the Owner in its sole discretion, the Bid security will be returned. Without the advanced full disclosure by the withdrawing Bidder to and written consent of the Owner, (a) no Bid shall be withdrawn under this section when the result would be the awarding of the contract on another Bid of the same Bidder or of another Bidder in which the withdrawing Bidder has a direct or indirect equitable interest and (b) no Bidder who is permitted to withdraw a Bid shall, for compensation, supply any material or labor to or perform any subcontract or other work agreement for the Bidder to whom the contract is awarded or otherwise benefit, directly or indirectly, from the performance of the Project.

16. OPENING OF BIDS. Bids will be opened electronically via Microsoft Teams meeting at the time indicated in the advertisement or Invitation to Bid. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

17. BIDS TO REMAIN SUBJECT TO ACCEPTANCE. All Bids will remain subject to acceptance for the period of time stated in the Bid Disclosure Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

18. AWARD OF CONTRACT. Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, non-responsive, incomplete, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder which it finds, after reasonable inquiry and evaluation, to be non-responsive. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Owner to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate with the apparent Successful Bidder(s) to such an extent as may be determined by Owner. The Owner also reserves the right to increase or decrease the quantities of work per the General Conditions.

In evaluating Bids, Owner will consider, among other lawful considerations, the following:

- a. Whether or not the Bid complies with the prescribed requirements, and provides such alternates, unit prices and other information or data as may be requested in the Bid Form or prior to the Notice of Award.
- b. The qualifications of the Bidder.
- c. If the Bidder maintains a permanent place of business.
- d. If the Bidder has adequate personnel and equipment to perform the Work properly and expeditiously.
- e. Bidder's financial status to meet all obligations and incidentals to the Work.
- f. Whether the Bidder has appropriate technical expertise and experience.
- g. Bidder's performance record.
- h. The amount of the total base bid and the best bid, exclusive of any additive alternates, if applicable. Any additive alternates will be considered after selection of the lowest Total Base Bid. Each additive alternate will be considered and selected or not selected individually, at Owner's discretion, for inclusion in the work.

In addition, the evaluation of Bids will be subject to the reciprocal preference for Kentucky resident bidders pursuant to KRS 45A.490 to 45A.494 and KAR 200 5:400. These statutes and regulation provide in part as follows: (a) a resident bidder of the Commonwealth shall be given a preference against a nonresident bidder registered in any state that gives or requires a preference to bidders from that state; (b) the preference shall be equal to the preference given or required by the state of the nonresident bidder; (c) this preference shall not be applied against nonresident bidders residing in states that do not give preference against Kentucky bidders; (d) if a procurement determination results in a tie between a resident bidder and a nonresident bidder, preference shall be given to the resident bidder; and (e) the

preference shall not result in a nonresident bidder receiving a preference over another nonresident bidder.

Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders to perform the Work in accordance with the Contract Documents, including, without limitation, a Bidder's claim that it is a resident bidder for purposes of Kentucky's preference statute.

19. CONTRACT SECURITY AND INSURANCE. Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment Bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by such Bonds.

20. SIGNING OF AGREEMENT. When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents identified in the Agreement as attached thereto. Within **15 days** thereafter, the Successful Bidder shall sign, leaving the dates blank, and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within **15 days** thereafter, Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

21. SALES TAX EXEMPTION. The Contract Price shall not include sales tax for building materials, fixtures, or supplies purchased by the Successful Bidder which will be permanently incorporated into a structure or improvement to real property, or will be completely consumed, in fulfilling a construction contract for the purpose of furnishing water or sewer services to the general public under KRS 139.480. The Successful Bidder agrees to utilize Kentucky Department of Revenue Form 51A383 when making sales tax exempt purchases for the Work.

22. RETAINAGE. Provisions concerning retainage are set forth on the Agreement.

23. DRINKING WATER STATE REVOLVING FUND LOAN. A portion of the funding for this project comes from a Drinking Water State Revolving Fund (DWSRF) loan. This loan originates with the United States Environmental Protection (USEPA) and has several provisions that directly impact the Bidder. These include:

1. A certificate that the Bidder, and any subcontractors used by the Bidder, are not on the Federal List of Debarred Contractors. (CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER MATTERS – EPA Form 5700-49) addresses this item and must be executed and included with the Bid.
2. A certification from the Bidder that no appropriate funds were or will be used for the purposes of lobbying the legislative or executive branches of the Federal government. (CERTIFICATION REGARDING LOBBYING) address this item and must be submitted with the Bid.

The DWSRF loan creates additional documentation requirements on both the Contractor and the Owner. These are set forth in the Supplemental General Conditions for Drinking Water State Revolving Fund Loans (DWSRF Supplemental General Conditions). The items identified, but not limited to, in this section must be submitted with the Bid. The remaining items identified in the DWSRF Supplemental General Conditions Section will be submitted by

the low bidder within 21 days of the Bid Opening. The project will not be awarded until this information is received.

DWSRF funding requires a recipient to utilize minority or women owned businesses as subcontractors where possible. Certain information and documentation is required by the funding agencies and other governing bodies prior to awarding a necessary approval for this project. The BIDDER acknowledges, through the act of submitting a Bid, a commitment to submit the following documentation or information within 7 days of the Bid Opening. Failure to produce any of this documentation or information within the prescribed period will serve as grounds for rejection of the Bid. If the information is required from a subcontractor or vendor and is not produced within the prescribed, it will serve as grounds to replace the subcontractor or vendor with another company or product.

Specific items to be submitted within 7 days of the Bid Opening include:

- A. Disadvantage Enterprise Participation Policy (Attachment 11-Section 00810).
- B. List of DBE Bidders of Subcontractors (Attachment 11-Section 00810).

End of Section

Statement of Work

The proposed work is generally described as follows: The proposed Work is generally described as follows: Construction of approximately 4,959 linear feet of 8" PVC and Ductile Iron water main, 1,129 linear feet of 6" Ductile Iron water main and 193 linear feet of 12" ductile iron water main together with the appurtenances and related work for water main replacement on portions of Joyce Avenue, Amelia Street, 21st Street, Home Street, Truesdale Road, Grandview Avenue and Clifton Avenue in Newport, Campbell County, Kentucky. The project shall be completed within 495 calendar days. Liquidated damages shall be assessed at \$500 per calendar day

- Joyce Avenue – 2,177 ft from New Linden Road to Florence Avenue
- Amelia Street – 1,530 ft from Home Street to Widrig Street
- Home Street - 427 ft from 19th Street to Amelia Street
- 21st Street – 529 ft from Robinwood Place to end of street
- Truesdale Road – 259 ft from Grandview Avenue to end of street
- Grandview Avenue – 1,018 ft from McHenry Street to Central Avenue
- Clifton Avenue – 341 ft from McHenry Street to W. 13th Street

End of Section

Section 00300

BID DISCLOSURE FORM

PROJECT IDENTIFICATION: **Newport Water Main Replacement
Phase 4 of WX21037311**

THIS BID IS SUBMITTED ELECTRONICALLY VIA QUEST CDN TO THE NORTHERN KENTUCKY WATER DISTRICT

THIS BID IS SUBMITTED BY: _____
(Bidder's Company Name)

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Contract Documents to perform all Work as specified or indicated in the Contract Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.
2. Bidder accepts all of the terms and conditions of the Invitation to Bid and the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 90 calendar days after the Bid opening, or for such longer period of time to which the Bidder may agree in writing upon request of Owner. Bidder understands that certain extensions to the time for acceptance of this Bid may require the consent of the surety for the Bid Bond.
3. In submitting this Bid, Bidder represents and covenants, as set forth in the Agreement, that:
 - a. Bidder has examined and carefully studied the Contract Documents, the other related data identified in the Contract Documents, and all Addenda, receipt of all of which is hereby acknowledged.
 - b. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - c. Bidder is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
 - d. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary explorations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.

- e. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
 - f. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
 - g. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
 - h. Bidder has given Owner written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Owner is acceptable to Bidder.
 - i. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
 - j. Bidder's Organization Number from Kentucky's Secretary of State is #_____ [if applicable] and Bidder is qualified to transact business in the State of Kentucky or hereby covenants to obtain such qualifications prior to award of the Contract.
4. Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
5. The Bidder understands and agrees that during the performance of the Contract, it shall maintain a presence within such proximity of the Site which will allow it to respond to an emergency at the Site within one hour of receiving notice of an emergency, including emergencies occurring during non-working hours. The Bidder shall provide a list of emergency phone numbers for such purposes. If the Bidder does not have such a presence, it may satisfy this requirement by sub-contracting with a sub-contractor that does have such a presence, provided that any such sub-contractor must be approved by the Owner, in its sole discretion, prior to the project pre-construction meeting.
6. Bidder will complete the Work for the following prices. Unit prices will be computed in accordance with paragraph of the General Conditions. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities provided, determined as provided in the Contract Documents.

REFERENCE COPY OF BID WORKSHEET

BID PRICING MUST BE SUBMITTED IN THE QUEST CDN WORKSHEET TO BE CONSIDERED

Note: Bidder agrees to perform all the following work described in the specifications and shown on the plans, for the unit prices indicated in the QuestCDN Bid Worksheet, copied below for reference:

Section A- Joyce Avenue (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)			UoM	Quantity	Unit Price
Item Code	Item Description				
A1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (8-inch). (Detail 103, 103a, 104, 104a, 110)		LF	2045	
A2	6.02 B CLASS 50 or 52 DUCTILE IRON PIPE (8-inch) - RESTRAINED JOINT		LF	132	
A3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch)		EA	2	
A4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (8-inch)		EA	4	
A5	8.01 INSTALL FIRE HYDRANT ASSEMBLY		EA	2	
A6	8.03 REMOVE FIRE HYDRANT		EA	2	
A7	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8-inch)		EA	6	
A8	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)		EA	76	
A9	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2108 New Linden) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A10	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2101 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A11	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2114 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2116 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2118 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2120 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2122 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2200 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2202 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2204 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2119 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2121 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2203 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2205 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2206 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2208 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2210 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2212 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2214 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2216 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2218 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2220 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2222 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A32	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2224 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A33	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2207 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A34	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2209 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A35	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2211 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A36	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2213 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A37	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2215 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A38	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2217 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A39	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2219 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A40	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2221 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A41	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2223 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A42	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2226 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A43	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2228 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A44	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2230 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A45	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2232 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A46	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2234 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A47	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2238 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A48	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2240 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A49	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2242 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A50	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2225 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A51	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2229 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A52	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2231 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A53	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2233 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A54	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2235 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A55	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2237 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A56	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2239 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A57	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2241 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	
A58	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (2290 Joyce Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00		EA	1	

A59	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(229 Poplar Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A60	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(232 Poplar Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A61	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(235 Poplar Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A62	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2302 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A63	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2304 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A64	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2306 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A65	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2308 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A66	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2310 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A67	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2312 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A68	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2311 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A69	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2313 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A70	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2215 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A71	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2319 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A72	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2331 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A73	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2329 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A74	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2314 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A75	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2316 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A76	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2318 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A77	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2320 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A78	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2322 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A79	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2324 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A80	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2327 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A81	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2325 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A82	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2323 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A83	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2321 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A84	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2317 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
A85	11.01 CONCRETE ENCASMENT	LF	20	
A86	11.06 ANCHORING TEE AND BLOCK (8-inch x 8-inch x 6-inch)	EA	2	
A87	11.06 ANCHORING TEE AND BLOCK (8-inch x 8-inch x 8-inch)	EA	2	
A88	11.09 REDUCER (8-inch x 6-inch)	EA	2	
A89	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	3061	
A90	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	717	
A91	12.11 CONCRETE CURBING	LF	10	
A92	12.12 CONCRETE SIDEWALK	SY	4	
A93	12.14 BEST MANAGEMENT PRACTICE	LS	1	
Section B- 21st Street (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)				
Item Code	Item Description	UofM	Quantity	Unit Price
B1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (6-inch). (Detail 103, 103a, 104, 104a, 110)	LF	445	
B2	6.02 B CLASS 50 or 52 DUCTILE IRON PIPE (6-inch) - RESTRAINED JOINT	LF	84	
B3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch)	EA	1	
B4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (8-inch)	EA	1	
B5	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	1	
B6	8.03 REMOVE FIRE HYDRANT	EA	1	
B7	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6-inch)	EA	1	
B8	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8-inch)	EA	1	
B9	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	20	
B10	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(1 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B11	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(3 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(5 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(7 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(9 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(11 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(13 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(15 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(17 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(19 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(26 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(6 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(8 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(10 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(12 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(14 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(18 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(20 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(27 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(24 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
B30	11.04 PLUG AND BLOCK (6-inch)	EA	1	
B31	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	1	
B32	11.06 ANCHORING TEE AND BLOCK (6-inch x 6-inch x 6-inch)	EA	2	
B33	11.06 ANCHORING TEE AND BLOCK (8-inch x 8-inch x 8-inch)	EA	1	
B34	11.10 FLUSHING DEVICE (2-INCH)	EA	1	
B35	11.15 SLEEVE OUT EXISTING TEE (8-INCH)	EA	1	
B36	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	819	
B37	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	178	
B38	12.11 CONCRETE CURBING	LF	5	
B39	12.12 CONCRETE SIDEWALK	SY	2	
B40	12.14 BEST MANAGEMENT PRACTICE	LS	1	

Section C - Truesdale Road (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)

Item Code	Item Description	UoM	Quantity	Unit Price
C1	6.01 CLASS50 or 52 DUCTILE IRON PIPE (6-inch). (Detail 103, 103a, 104, 104a, 110)	LF	91	
C2	6.02 B CLASS50 or 52 DUCTILE IRON PIPE (6-inch) - RESTRAINED JOINT	LF	168	
C4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (8-inch)	EA	1	
C5	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	1	
C7	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6-inch)	EA	1	
C8	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8-inch)	EA	2	
C9	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	3	
C10	11.04 PLUG AND BLOCK (6-inch)	EA	1	
C11	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	1	
C12	11.06 ANCHORING TEE AND BLOCK (6-inch x 6-inch x 6-inch)	EA	1	
C13	11.06 ANCHORING TEE AND BLOCK (8-inch x 8-inch x 6-inch)	EA	1	
C14	11.15 SLEEVE OUT EXISTING TEE (8-INCH)	EA	1	
C15	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	507	
C16	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	65	
C17	12.14 BEST MANAGEMENT PRACTICE	LS	1	

Section D - Amelia/Home Streets (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)

Item Code	Item Description	UoM	Quantity	Unit Price
D1	6.01 CLASS50 or 52 DUCTILE IRON PIPE (12-inch). (Detail 103, 103a, 104, 104a, 110)	LF	81	
D2	6.02 B CLASS50 or 52 DUCTILE IRON PIPE (12-inch) - RESTRAINED JOINT	LF	112	
D3	6.01 CLASS50 or 52 DUCTILE IRON PIPE (8-inch). (Detail 103, 103a, 104, 104a, 110)	LF	507	
D4	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8-inch) (Detail 103, 103a, 104, 104a, 110)	LF	134	
D5	6.03B C-900, C-909 Poly Vinyl Chloride (PVC) (8-inch) - RESTRAINED JOINT	LF	852	
D6	6.02 B CLASS50 or 52 DUCTILE IRON PIPE (8-inch) - RESTRAINED JOINT	LF	271	
D7	7.01 CONNECT TO EXISTING MAIN/TIE-IN (4-inch)	EA	1	
D8	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch)	EA	2	
D9	7.01 CONNECT TO EXISTING MAIN/TIE-IN (10-inch)	EA	1	
D10	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	4	
D11	8.03 REMOVE FIRE HYDRANT	EA	4	
D12	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6-inch)	EA	1	
D13	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8-inch)	EA	5	
D14	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (12-inch)	EA	5	
D15	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	39	
D16	10.08 REMOVE EXISTING CURB STOP/METER CROCK	EA	2	
D17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (49 Wdridge Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (45 Amelia Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (12 Amelia Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (41 Amelia Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (35A Amelia Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (35 Amelia Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (33 Amelia Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (40 Amelia Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (11 Amelia Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (22 Amelia Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (20 Amelia Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (14 Amelia Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (94 Home Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (92 Home Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (90 Home Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D32	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (88 Home Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D33	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (84 Home Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D34	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (82 Home Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D35	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (89 Home Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D36	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (95 Home Street) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1	
D37	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	4	
D38	11.06 ANCHORING TEE AND BLOCK (12-inch x 12-inch x 12-inch)	EA	2	
D39	11.06 ANCHORING TEE AND BLOCK (12-inch x 12-inch x 6-inch)	EA	1	
D40	11.06 ANCHORING TEE AND BLOCK (8-inch x 8-inch x 8-inch)	EA	4	
D41	11.09 REDUCER (12-inch x 10-inch)	EA	1	
D42	11.09 REDUCER (12-inch x 8-inch)	EA	1	
D43	11.09 REDUCER (12-inch x 4-inch)	EA	1	
D44	11.09 REDUCER (8-inch x 6-inch)	EA	1	
D45	11.15 SLEEVE OUT EXISTING TEE (12-INCH x 8-inch)	EA	1	
D46	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	2828	
D47	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	654	
D48	12.11 CONCRETE CURBING	LF	20	
D49	12.14 BEST MANAGEMENT PRACTICE	LS	1	

Section E - Grandview Avenue (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)						
Item Code	Item Description	UoM	Quantity	Unit Price		
E1	6.01 CLASS50 or 52 DUCTILE IRON PIPE (8-inch). (Detail 103, 103a, 104, 104a, 110)	LF	768			
E2	6.02 B CLASS50 or 52 DUCTILE IRON PIPE (8-inch) - RESTRAINED JOINT	LF	250			
E3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch)	EA	1			
E4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (10-inch)	EA	1			
E5	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2			
E6	8.03 REMOVE FIRE HYDRANT	EA	1			
E7	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	13			
E8	10.08 REMOVE EXISTING CURB STOP/METER CROCK	EA	1			
E9	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (92 Grandview Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1			
E10	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (79 Grandview Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1			
E11	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (68 Grandview Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1			
E12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (47 Grandview Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1			
E13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (43 Grandview Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1			
E14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (24 Grandview Avenue) - ** This Line Item Unit Price cannot be less than \$1,500.00	EA	1			
E15	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	1			
E16	11.06 ANCHORING TEE AND BLOCK (8-inch x 8-inch x 6-inch)	EA	2			
E17	11.09 REDUCER (10-inch x 8-inch)	EA	1			
E18	11.09 REDUCER (8-inch x 6-inch)	EA	1			
E19	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	1358			
E20	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	340			
E21	12.14 BEST MANAGEMENT PRACTICE	LS	1			

Section F - Clifton Avenue (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)						
Item Code	Item Description	UoM	Quantity	Unit Price		
F1	6.01 CLASS50 or 52 DUCTILE IRON PIPE (6-inch). (Detail 103, 103a, 104, 104a, 110)	LF	341			
F2	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch)	EA	2			
F3	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6-inch)	EA	3			
F4	11.06 ANCHORING TEE AND BLOCK (6-inch x 6-inch x 6-inch)	EA	1			
F5	11.15 SLEEVE OUT EXISTING TEE (6-INCH)	EA	1			
F6	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	62			
F7	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	10			
F8	12.11 CONCRETE CURBING	LF	5			
F9	12.14 BEST MANAGEMENT PRACTICE	LS	1			
F10	12.15 CONCRETE KEY BLOCK	EA	6			

Section G - Additional Items (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)						
Item Code	Item Description	UoM	Quantity	Unit Price		
G1	10.10B PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT - Pressure Regulator & Expansion Tank Additive.	EA	30			

Total bid in words

7. Bidder agrees that the Work will be substantially complete within 465 calendar days after the date when the Contract Times commence to run as provided in paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with paragraph 15.06.B of the General Conditions within 495 calendar days after the date when the Contract Times commence to run.

The terms used in this Bid with initial capital letters have the meanings indicated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions. The terms in this Bid, which are defined in the General Conditions included as part of the Contract Documents, have the meanings assigned to them in the General Conditions.

8. References

Contact Person	Company Name	Phone No.	Project Name
----------------	--------------	-----------	--------------

1. _____

2. _____

3. _____

4. _____

SUBMITTED on _____, 2025.

9. Communications concerning this Bid shall be sent to Bidder at the following address:

Phone: _____

Email: _____

AUTHORIZED SIGNATURE OF BIDDER
(see signature instructions below)

Individual/Entity Name/DBA _____(print)

By: _____(sign)
(Attach evidence of authority to sign if a corporation, LLC, joint venture, or partnership)

Title: _____

Business address _____

Phone No.: _____ Fax No.: _____

Email Address for Electronic Signatures: _____

Date _____

Signatures should meet the following requirements:

- Signatures for partnerships must be made by a general partner.
- Signatures for LLCs must be made by a manager or member, as dictated by the entity's Articles of incorporation/bylaws.
- If a joint venture, each venturer must complete the above complete the above authorized signature of bidder form and attach a copy to the Bid Disclosure Form.

Section 00301

SUPPLEMENTS TO BID FORM

1. FORMS TO BE SUBMITTED WITH BID

- A. Bid Disclosure Form (Section 00300)
- B. Certification Regarding Debarment, Suspension and Other Responsibility Matters
- EPA Form 5700-49 (Attachment No. 9 – Section 00810)
- C. Certification Regarding Lobbying (Attachment No. 10 – Section 00810)
- D. Statement of Bidder's Qualifications (Attachment No. 1)
- E. Bidder's Experience Record (Attachment No. 2)
- F. Proposed Subcontractors (Attachment No. 3)
- G. Bid Security (Specification Section 00410)
- H. Non-Collusion Affidavit (Specification Section 00460)
- I. Required Notarized Affidavit for Bidders, Offerors, and Contractors Claiming
Kentucky Resident Bidder Status (Specification Section 00470)

2. FORMS TO BE SUBMITTED WITHIN 7 DAYS OF BID OPENING

Certain information and documentation is required by the funding agencies and other governing bodies prior to awarding a necessary approval for this project. The BIDDER acknowledges, through the act of submitting a Bid, a commitment to submit the following documentation or information within 7 days of Bid Opening. Failure to produce any of this documentation or information within the prescribed period will serve as grounds for rejection of the Bid. If the information is required from a subcontractor or vendor and is not produced within the prescribed time, it will serve as grounds to replace the subcontractor or vendor with another company or product.

Specific items to be submitted within 7 days of the Bid opening include:

- A. Disadvantage Enterprise Participation Policy (Attachment 11 – Section 00810)
- B. List of DBE Bidders of Subcontracts (Attachment 11 – Section 00810)

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions shall be answered or the bid document will be incomplete. All data given shall be clear and comprehensive. This statement shall be notarized. If necessary, questions may be answered on separate sheets. The Bidder may submit any additional information it desires. If the Bidder is a joint venture, submit pervious joint venture projects. If joint venture has not completed prior projects of this magnitude then submit projects completed by joint venture partners.

1. Name of Bidder:
2. Permanent main office address:
3. When organized:
4. If a corporation, where incorporated:
5. How many years have you been engaged in operation of your business under your present firm or trade name:
6. Contracts on hand. (Schedule these, showing amount of each contract and the appropriate anticipated dates of completion.):
7. General character of work performed by your company:
8. Have you ever failed to complete any job awarded to you? If so, where and why?
9. Have you ever defaulted on a contract? If so, where and why?
10. List the more important projects completed by your firm, stating the approximate cost for each, and the month and year completed on attached sheet.
11. List your major equipment available for this work.
12. Experience in work similar in complexity, size and/or dollar value to this project. List and describe at least four on the table "Project References".
13. Background and experience of the principal members of your organization, including the officers in this type of work. (Attach)
14. Credit available: \$_____
15. Give bank reference: \$_____
16. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the Owner? ☐ Yes ☐ No

17. The undersigned hereby authorizes and requests any person, firm or corporation to furnish any information required by the Owner in verification of the statements made comprising this Statement of Bidder's Qualifications:

Dated at _____ this _____ day of _____

NAME OF BIDDER

BY _____

TITLE _____

STATE OF _____

COUNTY OF _____

_____ being duly sworn deposes and says that he or she is

_____ of _____
(NAME OF ORGANIZATION)

And that the answers to the foregoing questions and all statements contained therein are true and correct.

Subscribed and sworn to before me this _____ day of _____, of this year _____.

(NOTARY PUBLIC)

My commission expires _____

BIDDER'S EXPERIENCE RECORD
(Projects need to be of similar size and nature)

Change Order Value				
Contract Value				
Size of Project (Length, Contract Duration)				
Project Type, Year of Completion				
Engineer Contact Name, Telephone #				
Project Name, Owner, Address, Telephone #				

PROPOSED SUBCONTRACTORS

The BIDDER's proposed subcontractors shall be listed below for the various branches of work included in the proposed contract. All subcontractors are subject to the approval of the OWNER.

Unless rejected or otherwise permitted by the OWNER, no substitutions or changes to the listing of the entities proposed to perform that branch of the work will be allowed following opening of the Bids.

Where the BIDDER proposes to perform the work with its own forces, the phrase "Prime Contractor" shall be entered in the box provided

Failure to submit a completed list shall be cause for rejection of the Bid.

Branch of Work	Name of Subcontractor
1. Water Main Installation	
2. Service Installation	
3. Paving	
4. Restoration / Seeding & Strawing	
5. Sawcutting	
6. Other:	
7. Other:	

BID BOND**BIDDER (Name and Address)**

SURETY (Name and Address of Principal Place of Business)

OWNER (Name and Address)

BID

BID DUE DATE _____

PROJECT (Brief Description Including Location)

BOND

BOND NUMBER _____

DATE (Not later than Bid due date) _____

PENAL SUM _____ (Words) _____ (Figures)

IN WITNESS WHEREOF Surety and Bidder intending to be legally bound hereby subject to the terms printed on the reverse side hereof do each cause this Bid Bond to be duly executed on its behalf by its authorized officer agent or representative

BIDDER**SURETY**

_____(Seal)

Bidder's Name and Corporate Seal

_____(Seal)

Surety's Name and Corporate Seal

 By _____
 Signature and Title

 By _____
 Signature and Title
 (Attach Power of Attorney)

 Attest _____
 Signature and Title

 Attest _____
 Signature and Title

-
- Note (1) Above addresses are to be used for giving required notice
 (2) Any singular reference to Bidder Surety OWNER or other party shall be considered plural where applicable

1 Bidder and Surety jointly and severally bind themselves their heirs executors administrators successors and assigns to pay to OWNER upon default of Bidder the penal sum set forth on the face of this Bond

2 Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents

3 This obligation shall be null and void if

3 1 OWNER accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents or

3 2 All Bids are rejected by OWNER or

3 3 OWNER fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and if applicable consented to by Surety when required by paragraph 5 hereof)

4 Payment under this Bond will be due and payable upon default by Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from OWNER which notice will be given with reasonable promptness identifying this Bond and the Project and including a statement of the amount due

5 Surety waives notice of and any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by OWNER and Bidder provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent

6 No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date

7 Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located

8 Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond Such notices may be sent by personal delivery commercial courier or by United States Registered or Certified Mail return receipt requested postage pre paid and shall be deemed to be effective upon receipt by the party concerned

9 Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer agent or representative who executed this Bond on behalf of Surety to execute seal and deliver such Bond and bind the Surety thereby

10 This Bond is intended to conform to all applicable statutory requirements Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length If any provision of this Bond conflicts with any applicable statute then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect

11 The term Bid as used herein includes a Bid offer or proposal as applicable

Section 00460

NON-COLLUSION AFFIDAVIT

STATE OF: _____)

COUNTY OF: _____) SS

_____, being first duly sworn, deposes

and says that he/she is the _____ of
(sole owner, a partner, president, secretary, etc.)

_____, the party making the foregoing bid; that such bid is genuine and not collusive or sham; that said bidder is not financially interested in, or otherwise affiliated in a business way with any other bidder on the same contract; that said bidder has not colluded, conspired, connived, or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner directly or indirectly sought by agreement or collusion, or communication or conference, with any person, to fix the price or affidavit of any other bidder, or that of any other bidder, or to secure any advantage against Owner, or any person or persons interested in the proposed Contract; and that all statements contained in said bid are true; and further, that such bidder has not, directly or indirectly submitted this bid, or the contents thereof, or divulged information of data relative thereto to any association or to any member or agent thereof.

AFFIANT

Sworn to and subscribed before me, a Notary Public in and for the above named

State and County, this _____ day of _____, 20 _____.

Notary Public

Notary ID Number:_____

My Commission Expires:_____

End of Section

Bid Description: Newport Water Main Replacement – Phase 4 of WX21037311
REQUIRED NOTARIZED AFFIDAVIT FOR BIDDERS, OFFERORS AND
CONTRACTORS CLAIMING KENTUCKY RESIDENT BIDDER STATUS

A. IS THE BIDDER OR OFFER CLAIMING KENTUCKY RESIDENT BIDDER STATUS? CHECK YES OR NO.

YES _____ NO _____

If yes, please proceed to complete Section B, a signed and notarized resident bidder affidavit is required.

If no, do not complete Section B, no resident bidder affidavit is required.

B. FOR BIDS AND CONTRACTS IN GENERAL:

The bidder or offeror hereby swears and affirms under penalty of perjury that, in accordance with KRS 45A.494(2), the entity bidding is an individual, partnership, association, corporation, or other business entity that, on the date the contract was first advertised or announced as available for bidding:

Is authorized to transact business in the Commonwealth of Kentucky; AND

Has for one year prior to and through the date this contract was first advertised or announced as available for bidding:

Filed Kentucky corporate income taxes;

Made payments to the Kentucky unemployment insurance fund established in KRS 341.490; and

Maintained a Kentucky workers' compensation policy in effect.

The undersigned acknowledges that the District reserves the right to request documentation supporting a bidder's claim of resident bidder status. Failure to provide such documentation upon request shall result in disqualification of the bidder or contract termination.

Signature

Printed Name

Title (if signing on behalf of an entity)

Date

State of _____)

)ss.

County of _____)

Sworn to and subscribed before me, a Notary Public in and for the above named State and County, this _____ day of _____, 20 _____.

Notary Public

Notary ID Number: _____

My Commission Expires: _____

(Note: The following standard form will be used for
Preparation of the agreement, after award of contract.)

Section 00500

AGREEMENT
Newport and Water Main Replacement
Phase 4 of WX21037311

THIS AGREEMENT is by and between the Northern Kentucky Water District (herein called Owner) and _____ (herein called Contractor).

Owner and Contractor, in consideration of the mutual covenants herein set forth, agree as follows:

Article 1. WORK.

Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: The proposed Work is generally described as follows: Construction of approximately 4,959 linear feet of 8" PVC and Ductile Iron water main, 1,129 linear feet of 6" Ductile Iron water main and 193 linear feet of 12" ductile iron water main together with the appurtenances and related work for water main replacement on portions of Joyce Avenue, Amelia Street, 21st Street, Home Street, Truesdale Road, Grandview Avenue and Clifton Avenue in Newport, Campbell County, Kentucky.

Article 2. ENGINEER.

The Project has been designed by Cardinal Engineering Corporation who is referred to in the Contract Documents as Engineer.

Article 3. CONTRACT TIMES, LIQUIDATED DAMAGES, DELAYS, AND DAMAGES.

All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

3.1. Contract Times. The Work will be substantially completed within **465** days after the date when the Contract Times commence to run as provided in paragraph 2.03.A of the General Conditions, and completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions within **495** days after the date when the Contract Times commence to run.

3.2. Liquidated Damages. Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expenses, and difficulties involved in proving in a legal proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner \$ 500.00

for each day that expires after the time specified in paragraph 3.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times or any proper extension thereof granted by Owner, Contractor shall pay Owner as liquidated damages (but not as a penalty) \$ 500.00 for each day that expires after the time specified in paragraph 3.1 for completion and readiness for final payment until the Work is completed and ready for final payment.

Owner shall have the right to deduct the liquidated damages from any money in its hands, otherwise due, or to become due, to Contractor, or to initiate action to recover liquidated damages for nonperformance of this Contract within the time stipulated.

3.3. Delays and Damages. In the event Contractor is delayed in the prosecution and completion of the Work because of any delays caused by Owner or Engineer, Contractor shall have no claim against Owner or Engineer for damages (including but not limited to acceleration costs or damages) or contract adjustment other than an extension of the Contract Times and the waiving of liquidated damages during the period occasioned by the delay.

Contractor shall provide advance written notice to Owner and Engineer of Contractor's intention to accelerate the Work prior to commencing any acceleration. Such written notice shall include a detailed explanation of the nature and scope of the acceleration, the reason for the acceleration, the anticipated duration of the acceleration, and the estimated additional costs to Contractor, if any, related to the acceleration. This requirement shall not in any way affect or alter the agreement of Owner and Contractor with respect to delays and damages as set forth above and in Article 7 of the General Conditions.

Article 4. CONTRACT PRICE.

Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of that item as indicated in the Contractor's Bid, attached hereto as an exhibit, for the total amount of:

<hr/> (words)	<hr/> (figures)
As provided in paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made as provided in paragraph 9.08 of the General Conditions and as modified by the Supplementary Conditions. Unit Prices have been computed as provided in paragraph 11.03 of the General Conditions.	
Contractor acknowledges that the Contract Price shall not include sales tax for building materials, fixtures, or supplies purchased by Contractor which will be permanently incorporated into a structure or improvement to real property, or will be completely consumed, in fulfilling a construction contract for the purpose of furnishing water or sewer services to the general public under KRS 139.480. Contractor agrees to utilize Kentucky Department of Revenue Form 51A383 when making sales tax exempt purchases under this Agreement.	

Article 5. PAYMENT PROCEDURES.

Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Owner as provided in the General Conditions and as modified by the Supplementary Conditions.

5.1. Progress Payments. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 25th day of each month during performance of the Work. All such payments will be measured by the schedule of values established in paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.

5.2. Retainage. In addition to any amounts withheld from payment in accordance with Paragraph 14.02 of the General Conditions, Owner shall retain from progress payments amounts equal to the following percentages:

- a. Ten percent (10%) of the amount of the Work completed. This amount may be reduced by the Owner in its sole and absolute discretion, if the project is substantially completed; and
- b. Ten percent (10%) of the value of materials and equipment that are not incorporated in the Work but are delivered, suitably stored, and accompanied by documentation satisfactory to Owner as provided in paragraph 14.02 of the General Conditions. Retainage for stored materials and equipment will be released when the materials and equipment are incorporated in the Work.

All retainage will be paid to Contractor when the Work is completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions. Consent of the Surety shall be obtained before retainage is paid by Owner. Consent of the Surety, signed by an agent, must be accompanied by a certified copy of such agent's authority to act for the Surety.

5.3. Final Payment. Upon final completion and acceptance of the Work in accordance with paragraphs 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price as provided in said paragraph 14.07.

Article 6. CONTRACTOR'S REPRESENTATION.

In order to induce Owner to enter into this Agreement Contractor makes the following representations:

- a. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents
- b. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of

the Work.

- c. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- d. Contractor has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary explorations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including applying the specific means, methods, techniques, sequences, and procedures of construction, if any, expressly required by the Contract Documents to be employed by Contractor, and safety precautions and programs incident thereto.
- e. Contractor does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- f. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- g. Contractor has correlated the information known to Contractor, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- h. Contractor has given Owner written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Owner is acceptable to Contractor.
- i. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

Article 7. CONTRACT DOCUMENTS.

The Contract Documents, which are incorporated as part of the Agreement, consist of the following:

- A. This Agreement;
- B. Uniform Guidance 2 CFR 200 Contract Requirements
- B. Performance Bond;
- C. Payment Bond;
- D. General Conditions;
- E. Supplementary Conditions;
- F. Specifications as listed in the table of contents of the Project Manual;

- G. Drawings consisting of a cover sheet and sheets numbered **C-000** through **C-515** inclusive, with each sheet bearing the following general title;
Newport 2022 Water Main Replacement – Phase 4 of WX21037311
- H. Addenda (numbers ___ to ___, inclusive);
- I. Exhibits to this Agreement (enumerated as follows):
 - 1. Notice to Proceed;
 - 2. Contractor's Bid;
 - 3. Documentation submitted by Contractor prior to Notice of Award;
- J. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - 1. Written Amendments;
 - 2. Work Change Directives;
 - 3. Change Orders.

There are no Contract Documents other than those listed above in this Article 7. The Contract Documents may only be amended, modified, or supplemented as provided in paragraphs 3.05 of the General Conditions.

Article 8. CONTRACT CORRECTION PERIOD.

Notwithstanding the reference to "one year after the date of Substantial Completion" at the beginning of paragraph 13.07.A of the General Conditions, the Contractor's Correction Period with respect to the obligations set forth in paragraph 13.07.A of the General Conditions shall be twenty-four (24) months after the issuance of "Certificate of Substantial Completion" for all machinery, piping, materials, equipment, fittings, roadway pavement work, general restoration, shoulder & ditch restoration furnished under the Contract Documents. The correction period referenced in paragraph 13.07.C of the General Conditions shall be twenty-four (24) months for all machinery, piping, materials, equipment, fittings and all roadway pavement work.

Article 9. COMPLIANCE WITH KENTUCKY LAW.

Contractor represents and warrants that it has revealed to Owner any and all final determinations of a violation of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 by Contractor or any subcontractor within the past five years. Contractor further represents and warrants that it and each of its subcontractors will remain in continuous compliance with the provisions of KRS Chapters 136, 139, 141, 337, 338, 341 and 342 for the duration of this Agreement. Contractor understands that its failure to reveal a final determination of a violation or to comply with the above statutory requirements constitutes grounds for cancellation of the Agreement and for disqualification of Contractor from eligibility for any contracts for a period of two years.

Article 10. EQUAL OPPORTUNITY.

Unless exempted under KRS 45.590, during the performance of the Agreement, the Contractor agrees as follows:

a. Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age forty (40) and over, disability, veteran status, or national origin;

b. Contractor will take affirmative action in regard to employment, upgrading, demotion, transfer, recruitment, recruitment advertising, layoff, termination, rates of pay or other forms of compensation, and selection for training, so as to ensure that applicants are employed and that employees during employment are treated without regard to their race, color, religion, sex, age forty (40) and over, disability, veteran status, or national origin;

c. Contractor will state in all solicitations or advertisements for employees placed by or on behalf of Contractor that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age forty (40) or over, disability, veteran status, or national origin;

d. Contractor will post notices in conspicuous places, available to employees and applicants for employment, setting forth the provisions of the nondiscrimination clauses required by this section; and

e. Contractor will send a notice to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding advising the labor union or workers' representative of Contractor's commitments under the nondiscrimination clauses.

Article 11. MISCELLANEOUS.

a. Terms used in this Agreement will have the meanings indicated in the General Conditions.

b. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

c. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect of all covenants, agreements, and obligations contained in the Contract Documents.

d. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part

thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

[Signature page follows.]

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. One counterpart each has been delivered to Owner, Contractor, Surety, and Engineer.

This Agreement will be effective on _____ (which is the Effective Date of the Agreement).

OWNER: **Northern Kentucky Water District**

Richard Harrison
Vice President of Engineering & Distribution

Address for giving notices

2835 Crescent Springs Road
PO Box 18640
Erlanger, Kentucky 41018

CONTRACTOR: _____

By: _____
Signature

Printed Name

Title

(Corporate Seal)

Address for giving notices

Joint Venture

CONTRACTOR:_____

By:_____ (Corporate Seal)

Address for giving notices

Uniform Guidance Contract Requirements

2 CFR 200 - ARPA Funded Projects

This Agreement, Contract, or Purchase Order ("contract") involves the use of funds from a Federal government grant. Due to the contract funding source, the following clauses from the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards ("Uniform Guidance"), Appendix II are incorporated into and form a part of the terms and conditions of the contract. The full text of the Uniform Guidance may be found at 2 CFR Part 200. Contractor agrees to comply with all applicable clauses and to flow down all applicable clauses to lower-tier subcontractors. Undefined terms herein shall have the same definitions as used in the contract, or if undefined there, in 2 CFR 200.

- 1. Equal Employment Opportunity. (2 CFR 200, Appendix II (C)).** *This Section applies if the contract is a "federally assisted construction contract."* Except as otherwise provided under 41 CFR Part 60, for all contracts that qualify as "federally assisted construction contracts" as defined in 41 CFR Part 60-1.3, contractor agrees to comply with the equal opportunity clause under 41 CFR 60-1.4(b), incorporated herein by reference, and E.O. 11246, "Equal Employment Opportunity," as amended by E.O. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR Part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States

- 2. Contract Work Hours and Safety Standards Act (2 CFR 200, Appendix II (E); 40 U.S.C. 3701-3708).** *This section applies if the contract is in excess of \$100,000 and involves the employment of mechanics or laborers.* contractor shall comply with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than 1½ times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do

not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

3. **Clean Air Act (42 U.S.C. 7401—7671q) and the Federal Water Pollution Control Act (33 U.S.C. 1251—1387), as amended (2 CFR 200, Appendix II (G)).** *This section applies if the contract is in excess of \$150,000.* The contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401—7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251—1387). Violations shall be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA). The contractor agrees to: i) comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. and the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.; ii) report each violation to the Owner and understands and agrees that the Owner will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office; and iii) include these requirements in each subcontract exceeding \$100,000.
4. **Debarment and Suspension (2 CFR 200, Appendix II (H); E.O.s 12549 and 12689).** *This section applies to all federally funded contracts.* The project related to the procurement notice and/or contract is a federally funded project. In order to respond to this procurement notice, all non-federal entities, contractors, sub-recipients and sub-grantees are required to register in the System for Award Management (SAM) database. SAM is the official free, government operated website. There is NO charge to register or maintain your entity registration record in SAM. All contractors must be registered in SAM prior to receiving an award of contract from the Owner. In SAM, your company/business/organization is referred to as an “Entity”. You must register your entity to do business with the U.S. Federal government by completing the registration process in SAM. Detailed instructions for how to register your company/business/organization can be found at <https://sam.gov/content/entity-registration>. Non-federal entities are subject to the non-procurement debarment and suspension regulations implementing Executive Orders 12549 and 12689, 2 CFR part 180. These regulations restrict awards, sub-awards, and contracts with certain parties that are debarred, suspended, or otherwise Contractor must comply with 2 CFR Part 180, Subpart C and must include a requirement to comply with this regulation in any lower tier covered transaction it enters into. Contractor shall have an ongoing duty during the term of this Contract to disclose to Owner on an ongoing basis any occurrence that would prevent contractor from making the certifications contained in this section. Such disclosure shall be made in writing to Owner within five (5) business days of when contractor discovers or reasonably believes there is a likelihood of such occurrence. This certification is a material representation of fact relied upon by Owner. If it is later determined that contractor did not comply with 2 CFR Part 180, Subpart C, in addition to remedies available to Owner, the Federal government may pursue available remedies, including but not limited to suspension and/or debarment.
5. **Byrd Anti-Lobbying Amendment (2 CFR 200, Appendix II (I); 31 U.S.C. 1352).** *This section applies if the contract is for \$100,000 or more.* Contractor and its subcontractors shall file the certification required by this statute and associated regulations. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to Owner.
6. **Procurement of recovered materials (2 CFR 200.323).** *This section applies where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000.* The contractor shall comply with the requirements of Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition.
7. **Domestic preferences for procurements (2 CFR 200.322).** *This section applies to all contracts covered by 2 CFR 200.* As appropriate and to the extent consistent with law, the contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this Section must be included in all subawards including all contracts and purchase orders for work or products under this contract. For purposes of this section: i) “Produced in the United States” means, for iron and steel products, that all manufacturing processes from the initial melting stage through the application of coatings, occurred in the United States; ii) “Manufactured products” means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.
8. **Contracting with Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms (2 CFR 200.321).** *This section applies to all contracts covered by 2 CFR 200.* The contractor shall take affirmative steps to include minority businesses, women's business enterprises, and labor surplus area firms when possible by: i) placing qualified small and minority businesses and women's business enterprises on solicitation lists; ii) assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources; iii) dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises; iv) establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; v) using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce; vi) and requiring subcontractors, if subcontracts are to be let, to take the affirmative steps listed in in this Section.

CONFLICTS AMONG CLAUSES APPLICABLE TO THE CONTRACT

In the event of any conflict among the requirements of clauses applicable to contract, the most stringent requirements of the clauses will apply.

Performance Bond

Any singular reference to Contractor Surety Owner or other party shall be considered plural where applicable

CONTRACTOR (Name and Address)

SURETY (Name and Address of Principal Place
of Business)

OWNER (Name and Address)

CONTRACT

Date

Amount

Description (Name and Location)

BOND

Date (Not earlier than Contract Date)

Amount

Modifications to this Bond Form

Surety and Contractor intending to be legally bound hereby subject to the terms printed on the reverse side hereof do each cause this Performance Bond to be duly executed on its behalf by its authorized officer agent or representative

CONTRACTOR AS PRINCIPAL

Company _____ (Corp Seal)

Signature _____
Name and Title

SURETY

Company _____ (Corp Seal)

Signature _____
Name and Title
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties if required)

CONTRACTOR AS PRINCIPAL

Company _____ (Corp Seal)

Signature _____
Name and Title

SURETY

Company _____ (Corp Seal)

Signature _____
Name and Title

EJCDC No 1910 28 A (1996 Edition)

Originally prepared through the joint efforts of the Surety Association of America Engineers Joint Contract Documents Committee the Associated General Contractors of America and the American Institute of Architects

1 The CONTRACTOR and the Surety jointly and severally bind themselves their heirs executors administrators successors and assigns to the Owner for the performance of the Contract which is incorporated herein by reference

2 If the CONTRACTOR performs the Contract, the Surety and the CONTRACTOR have no obligation under this Bond except to participate in conferences as provided in paragraph 3.1

3 If there is no OWNER Default, the Surety's obligation under this Bond shall arise after

3.1 The OWNER has notified the CONTRACTOR and the Surety at the addresses described in paragraph 10 below that the OWNER is considering declaring a CONTRACTOR Default and has requested and attempted to arrange a conference with the CONTRACTOR and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Contract. If the OWNER, the CONTRACTOR and the Surety agree, the CONTRACTOR shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the OWNER's right if any subsequently to declare a CONTRACTOR Default and

3.2 The OWNER has declared a CONTRACTOR Default and formally terminated the CONTRACTOR's right to complete the Contract. Such CONTRACTOR Default shall not be declared earlier than twenty days after the CONTRACTOR and the Surety have received notice as provided in paragraph 3.1 and

3.3 The OWNER has agreed to pay the Balance of the Contract Price to

3.3.1 The Surety in accordance with the terms of the Contract,

3.3.2 Another contractor selected pursuant to paragraph 4.3 to perform the Contract

4 When the OWNER has satisfied the conditions of paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions

4.1 Arrange for the CONTRACTOR, with consent of the OWNER, to perform and complete the Contract, or

4.2 Undertake to perform and complete the Contract itself through its agents or through independent contractors or

4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the OWNER for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the OWNER and the contractor selected with the OWNER's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the OWNER the amount of damages as described in paragraph 6 in excess of the Balance of the Contract Price incurred by the OWNER resulting from the CONTRACTOR Default or

4.4 Waive its right to perform and complete, arrange for completion or obtain a new contractor and with reasonable promptness under the circumstances

4.4.1 After investigation, determine the amount for which it may be liable to the OWNER and as soon as practicable after the amount is determined, tender payment therefor to the OWNER, or

4.4.2 Deny liability in whole or in part and notify the OWNER citing reasons therefor

5 If the Surety does not proceed as provided in paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the OWNER to the Surety demanding that the Surety perform its obligations under this Bond and the OWNER shall be entitled to enforce any remedy available to the OWNER. If the Surety proceeds as provided in paragraph 4.4 and the OWNER refuses the payment tendered or the Surety has denied

liability in whole or in part without further notice the OWNER shall be entitled to enforce any remedy available to the OWNER

6 After the OWNER has terminated the CONTRACTOR's right to complete the Contract, and if the Surety elects to act under paragraph 4.1, 4.2 or 4.3 above, then the responsibilities of the Surety to the OWNER shall not be greater than those of the CONTRACTOR under the Contract, and the responsibilities of the OWNER to the Surety shall not be greater than those of the OWNER under the Contract. To a limit of the amount of this Bond but subject to commitment by the OWNER of the Balance of the Contract Price to mitigation of costs and damages on the Contract, the Surety is obligated without duplication for

6.1 The responsibilities of the CONTRACTOR for correction of defective Work and completion of the Contract

6.2 Additional legal, design, professional and delay costs resulting from the CONTRACTOR's Default and resulting from the actions or failure to act of the Surety under paragraph 4 and

6.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non performance of the CONTRACTOR

7 The Surety shall not be liable to the OWNER or others for obligations of the CONTRACTOR that are unrelated to the Contract and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the OWNER or its heirs, executors, administrators or successors

8 The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders and other obligations

9 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after CONTRACTOR Default or within two years after the CONTRACTOR ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable

10 Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the address shown on the signature page

11 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond

12 Definitions

12.1 Balance of the Contract Price. The total amount payable by the OWNER to the CONTRACTOR under the Contract after all proper adjustments have been made, including allowance to the CONTRACTOR of any amounts received or to be received by the OWNER in settlement of insurance or other Claims for damages to which the CONTRACTOR is entitled, reduced by all valid and proper payments made to or on behalf of the CONTRACTOR under the Contract

12.2 Contract. The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto

12.3 CONTRACTOR Default. Failure of the CONTRACTOR, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract

12.4 OWNER Default. Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof

(FOR INFORMATION ONLY Name Address and Telephone)
AGENT or BROKER OWNER'S REPRESENTATIVE (Engineer or other party)

Payment Bond

Any singular reference to Contractor Surety Owner or other party shall be considered plural where applicable

CONTRACTOR (Name and Address)

SURETY (Name and Address of Principal Place
of Business)

OWNER (Name and Address)

CONTRACT

Date

Amount

Description (Name and Location)

BOND

Date (Not earlier than Contract Date)

Amount

Modifications to this Bond Form

Surety and Contractor intending to be legally bound hereby subject to the terms printed on the reverse side hereof do each cause this Payment Bond to be duly executed on its behalf by its authorized officer agent or representative

CONTRACTOR AS PRINCIPAL

Company (Corp Seal)

Signature _____
Name and Title

SURETY

Company (Corp Seal)

Signature _____
Name and Title
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties if required)

CONTRACTOR AS PRINCIPAL

Company (Corp Seal)

Signature _____
Name and Title

SURETY

Company (Corp Seal)

Signature _____
Name and Title

EJCDC No 1910 28 B (1996 Edition)

Originally prepared through the joint efforts of the Surety Association of America Engineers Joint Contract Documents Committee the Associated General Contractors of America the American Institute of Architects the American Subcontractors Association, and the Associated Specialty Contractors

1 The CONTRACTOR and the Surety jointly and severally bind themselves their heirs executors administrators successors and assigns to the OWNER to pay for labor materials and equipment furnished for use in the performance of the Contract, which is incorporated herein by reference

2 With respect to the OWNER this obligation shall be null and void if the CONTRACTOR

2 1 Promptly makes payment directly or indirectly for all sums due Claimants and

2 2 Defends indemnifies and holds harmless the OWNER from all claims demands liens or suits by any person or entity who furnished labor materials or equipment for use in the performance of the Contract provided the OWNER has promptly notified the CONTRACTOR and the Surety (at the addresses described in paragraph 12) of any claims demands liens or suits and tendered defense of such claims demands liens or suits to the CONTRACTOR and the Surety and provided there is no OWNER Default

3 With respect to Claimants this obligation shall be null and void if the CONTRACTOR promptly makes payment directly or indirectly for all sums due

4 The Surety shall have no obligation to Claimants under this Bond until

4 1 Claimants who are employed by or have a direct contract with the CONTRACTOR have given notice to the Surety (at the addresses described in paragraph 12) and sent a copy or notice thereof to the OWNER stating that a claim is being made under this Bond and with substantial accuracy the amount of the claim

4 2 Claimants who do not have a direct contract with the CONTRACTOR.

1 Have furnished written notice to the CONTRACTOR and sent a copy or notice thereof to the OWNER, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating with substantial accuracy the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed and

2 Have either received a rejection in whole or in part from the CONTRACTOR or not received within 30 days of furnishing the above notice any communication from the CONTRACTOR by which the CONTRACTOR had indicated the claim will be paid directly or indirectly and

3 Not having been paid within the above 30 days have sent a written notice to the Surety and sent a copy or notice thereof to the OWNER stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the CONTRACTOR

5 If a notice required by paragraph 4 is given by the OWNER to the CONTRACTOR or to the Surety that is sufficient compliance

6 When the Claimant has satisfied the conditions of paragraph 4 the Surety shall promptly and at the Surety's expense take the following actions

6 1 Send an answer to the Claimant with a copy to the OWNER within 45 days after receipt of the claim stating the amounts that are undisputed and the basis for challenging any amounts that are disputed

6 2 Pay or arrange for payment of any undisputed amounts

7 The Surety's total obligation shall not exceed the amount of this Bond and the amount of this Bond shall be credited for any payments made in good faith by the Surety

8 Amounts owed by the OWNER to the CONTRACTOR under the Contract shall be used for the performance of the Contract and to satisfy claims if any under any Performance Bond By the CONTRACTOR furnishing and the OWNER accepting this Bond they agree that all funds earned by the CONTRACTOR in the performance of the Contract are dedicated to satisfy obligations of the CONTRACTOR and the Surety under this Bond subject to the OWNER's priority to use the funds for the completion of the Work

9 The Surety shall not be liable to the OWNER Claimants or others for obligations of the CONTRACTOR that are unrelated to the Contract The OWNER shall not be liable for payment of any costs or expenses of any Claimant under this Bond and shall have under this Bond no obligations to make payments to give notices on behalf of or otherwise have obligations to Claimants under this Bond

10 The Surety hereby waives notice of any change including changes of time to the Contract or to related Subcontracts purchase orders and other obligations

11 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by paragraph 4 1 or paragraph 4 2 3 or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs If the provisions of this paragraph are void or prohibited by law the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable

12 Notice to the Surety the OWNER or the CONTRACTOR shall be mailed or delivered to the addresses shown on the signature page Actual receipt of notice by Surety the OWNER or the CONTRACTOR however accomplished shall be sufficient compliance as of the date received at the address shown on the signature page

13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was to be performed any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond

14 Upon request of any person or entity appearing to be a potential beneficiary of this Bond the CONTRACTOR shall promptly furnish a copy of this Bond or shall permit a copy to be made

15 DEFINITIONS

15 1 Claimant An individual or entity having a direct contract with the CONTRACTOR or with a Subcontractor of the CONTRACTOR to furnish labor materials or equipment for use in the performance of the Contract The intent of this Bond shall be to include without limitation in the terms labor materials or equipment that part of water gas power light, heat, oil gasoline telephone service or rental equipment used in the Contract architectural and engineering services required for performance of the Work of the CONTRACTOR and the CONTRACTOR's Subcontractors and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor materials or equipment were furnished

15 2 Contract The agreement between the OWNER and the CONTRACTOR identified on the signature page including all Contract Documents and changes thereto

15 3 OWNER Default Failure of the OWNER which has neither been remedied nor waived to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof

(FOR INFORMATION ONLY--Name Address and Telephone)

AGENCY or BROKER

OWNER'S REPRESENTATIVE (Engineer or other party)

CERTIFICATE OF INSURANCE						Issue Date:	
PRODUCER:		THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.					
Code Sub-Code		COMPANIES AFFORDING COVERAGE					
INSURED:		COMPANY LETTER A					
		COMPANY LETTER B					
		COMPANY LETTER C					
		COMPANY LETTER D					
		COMPANY LETTER E					
COVERAGES							
THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES.							
CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE	POLICY EXPIRATION DATE	ALL LIMITS IN THOUSANDS		
	GENERAL LIABILITY				GENERAL AGGREGATE	\$1,000,	
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY	(Completed Operations & Products Liability remains in force for 2 years after final payment)			PRODUCTS-COMP/OPS AGGREGATE	\$1,000,	
	<input checked="" type="checkbox"/> OCCURRENCE				PERSONAL & ADVERTISING INJURY	\$1,000,	
	<input checked="" type="checkbox"/> BLANKET CONTRACTUAL				EACH OCCURRENCE	\$1,000,	
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT EACH OCCURRENCE Bodily Injury & Property Damage	\$1,000,	
	<input checked="" type="checkbox"/> ANY AUTO						
	<input checked="" type="checkbox"/> HIRED AUTOS						
	<input checked="" type="checkbox"/> NON-OWNED AUTOS						
	EXCESS LIABILITY				EACH OCCURRENCE	\$4,000,	
	<input checked="" type="checkbox"/> UMBRELLA FORM	(Follows Form of the Primary)			AGGREGATE	\$4,000,	
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY				STATUTORY		
		(Includes US Longshoremen and Harbor Workers Act and Maritime Coverage Where Applicable and All States Endorsement)			EACH ACCIDENT	\$1,000,	
					DISEASE-POLICY LIMIT	\$1,000,	
					DISEASE-EACH EMPLOYEE	\$1,000,	
	OTHER				EACH OCCURRENCE		
					AGGREGATE		
DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS:							
<ol style="list-style-type: none"> 1. Certificate Holder(s) & their Officers, Directors, Partners, Employees, & Agents Named as Additional Insured (all policies except WC). The coverage afforded the Additional Insured under these policies shall be primary insurance. If the Additional Insured has other insurance which is applicable to the loss, such other insurance shall be on an excess or contingent basis. (Copy of Additional Insured Endorsement attached.) 2. Blanket Coverage for XCU Hazards (General Liability & Excess Liability). 3. Waiver of Subrogation Against Certificate Holder(s), Their Officers, Directors, Partners, Employees, & Agents (all policies). 4. Contractual Coverage covers liability assumed in the Indemnification Clause of the Contract between Certificate Holder and Insured (General Liability & Excess Liability). 5. General and Products/Completed Operations aggregates apply for each Certificate Holder contract(s) or amendments (General Liability & Excess Liability). 6. Contractual Liability Limitation Endorsement CG2139 or its equivalent is not included in either General or Excess Liability policies. 7. Severability of Interest or Cross Liability clause or endorsement included (General Liability & Excess Liability). 							
CERTIFICATE HOLDERS				CANCELLATION			
1.		SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELED, TERMINATED, OR MATERIALLY CHANGED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL MAIL 30 DAYS' WRITTEN NOTICE TO THE CERTIFICATE HOLDERS NAMED TO THE LEFT. ANY IMPAIRMENT OR EXHAUSTION OF AGGREGATES WILL BE THE SUBJECT OF IMMEDIATE NOTICE TO THE CERTIFICATE HOLDERS.					
2.		AUTHORIZED REPRESENTATIVE					

CERTIFICATE OF PROPERTY INSURANCE		ISSUE DATE _____ <div style="text-align: right; font-size: small;">(mm/dd/yy)</div>	
THIS IS EVIDENCE THAT INSURANCE AS IDENTIFIED BELOW HAS BEEN ISSUED IS IN FORCE AND CONVEYS ALL THE RIGHTS AND PRIVILEGES AFFORDED UNDER THE POLICY			
PRODUCER <div style="display: flex; justify-content: space-between; font-size: x-small;"> Code Sub-Code </div>		COMPANY 	
INSURED		POLICY NUMBER	
		<div style="display: flex; justify-content: space-between; font-size: x-small;"> EFFECTIVE DATE (mm/dd/yy) EXPIRATION DATE (mm/dd/yy) </div>	
PROPERTY INFORMATION LOCATION/DESCRIPTION			
COVERAGE INFORMATION			
COVERAGES/PERILS/FORMS		AMOUNT OF INSURANCE	DEDUCTIBLE
BUILDERS RISK/INSTALLATION FLOATER All Risk of Physical Damage or Loss to Equipment and Materials at or incidental to the Jobsite on Completed Value Form		Insurable value of completed work. _____	
REMARKS (including Special Conditions) 1 Certificate Holder and others identified in the property insurance paragraph of the Contract Documents are Named Insureds 2 Waiver of Subrogation against Named Insureds 3 Any similar insurance carried by Named Insureds is excess of coverage described hereon 4 Losses are payable to Owner as fiduciary for the Named Insureds			
CANCELLATION THIS POLICY IS SUBJECT TO THE PREMIUMS FORMS AND RULES IN EFFECT FOR EACH POLICY PERIOD SHOULD THE POLICY BE TERMINATED OR MATERIALLY CHANGED THE COMPANY WILL GIVE THE CERTIFICATE HOLDERS IDENTIFIED BELOW 30 DAYS' WRITTEN NOTICE, AND WILL SEND NOTIFICATION OF ANY CHANGES TO THE POLICY THAT WOULD AFFECT THAT INTEREST IN ACCORDANCE WITH THE POLICY PROVISIONS OR AS REQUIRED BY LAW			
CERTIFICATE HOLDERS			
Name and Address 1 2		Nature of Interest X Additional Named Insured SIGNATURE OF AUTHORIZED AGENT OF THE COMPANY	

**Engineers Joint Documents Committee
Design and Construction Related Documents
Instructions and License Agreement**

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This Agreement shall be governed by the laws of the State of Virginia. Should you have any questions concerning this Agreement, you may contact EJCDC by writing to:

Arthur Schwartz, Esq.
General Counsel
National Society of Professional Engineers
1420 King Street
Alexandria, VA 22314

Phone: (703) 684-2845

Fax: (703) 836-4875
e-mail: aschwartz@nspe.org

You acknowledge that you have read this agreement, understand it and agree to be bound by its terms and conditions. You further agree that it is the complete and exclusive statement of the agreement between us which supersedes any proposal or prior agreement, oral or written, and any other communications between us relating to the subject matter of this agreement.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

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and

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These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of

the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

- A. Standards, Specifications, Codes, Laws, and Regulations
 1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 1. A Field Order;
 2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
 2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the

Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

- 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
- 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

- 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
- 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
- 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

- 1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
- 2. is of such a nature as to require a change in the Contract Documents; or
- 3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

- B. *Engineer's Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to

permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 - 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
 - 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
 - 1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners,

employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
6. include completed operations coverage:
 - a. Such insurance shall remain in effect for two years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of

them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;

2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 5. allow for partial utilization of the Work by Owner;
 6. include testing and startup; and
 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and “Or-Equals”*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or “or-equal” item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
1. “*Or-Equal*” *Items*: If in Engineer’s sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an “or-equal” item, in which case review and approval of the proposed item may, in Engineer’s sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
 - 3) it has a proven record of performance and availability of responsive service.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items:*

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
 - 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
 - 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or

entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its

use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner

and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts

any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:*

- a. Submit number of Samples specified in the Specifications.

- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures:*

- 1. Before submitting each Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
- 2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
- 3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

- 1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
- 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the

Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
4. use or occupancy of the Work or any part thereof by Owner;
5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
6. any inspection, test, or approval by others; or
7. any correction of defective Work by Owner.

6.20 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
 - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe

access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
 - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 - 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER’S RESPONSIBILITIES

8.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

- A. Owner’s duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner’s identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

- A. Owner’s responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. Owner’s responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner’s Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor’s means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws

and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 *Compliance with Safety Program*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations

on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of,

and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
 - 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 - 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
 - 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of

executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
 - 1. deny the Claim in whole or in part;
 - 2. approve the Claim; or
 - 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
 - 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
 - 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
 - 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.
- C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.
- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:*
1. Contractor agrees that:
 - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in

the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 2. there is no corresponding adjustment with respect to any other item of Work; and
 3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. *Contractor's Fee*: The Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers,

architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. repair such defective land or areas; or
 - 2. correct such defective Work; or
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. *Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's

review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
- d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due:

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment:

1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 Contractor's Warranty of Title

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and

- d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 Final Completion Delayed

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

- #### A.
- At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
3. Contractor's repeated disregard of the authority of Engineer; or
4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other

dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or

2. agrees with the other party to submit the Claim to another dispute resolution process; or
3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTARY CONDITIONS

SCOPE. These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (C-700, 2007 Edition) and other provisions of the Contract Documents as indicated herein. All provisions which are not so amended or supplemented remain in full force and effect.

SC-1. DEFINITIONS AND TERMINOLOGY.

SC-1.01. DEFINED TERMS. The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract (C-700, 2007 Edition) have the meanings assigned to them in the General Conditions.

Amend the terms as follows:

3. Application for Payment: Strike out the word "Engineer" and insert the word "Owner" in its place.
9. Change Order: Strike out the words "recommended by Engineer".
12. Contract Documents: In the first sentence, strike out the word "Engineer's" and insert the word "Owner's" in its place.
14. Contract Times: Strike out the words "as evidenced by Engineer's written recommendation of final payment".
15. Contractor: Delete the term "Contractor" and substitute therefore the terms "Contractor or Prime Contractor."
17. Drawings: Add the following sentence to the definition: "Drawings may also be described as Plans."
20. Field Order: Strike out the word "Engineer" and insert the word "Owner" in its place.
22. Hazardous Environmental Conditions: Delete the words " or Radioactive Material" and substitute therefore the words "Radioactive Material or other pollutants or contaminants".
44. Substantial Completion: Strike out the word "Engineer" and insert the word "Owner" in its place. Add the following to the first sentence: "and a Certificate of Substantial Completion has been completed."
51. Work Change Directive: In the first sentence strike out the words "and recommended by Engineer".

Additional terms used in these Supplementary Conditions have the meanings indicated herein, which are applicable to both the singular and plural thereof.

Add the following new definitions to paragraph 1.01:

- "52. Final Completion – The time when all work is complete, including all punch list items, and all documents required for occupancy of the facility are completed and submitted to the OWNER. These documents include, but are not limited to, Certificate of Occupancy, Letters of Approval from various regulatory agencies, inspection certificates, and all other items as required in paragraph 14.07."
- "53. General Contractor – The person, firm, or corporation with whom OWNER has entered into an Agreement for a complete project, general trades, or complete project less a part of the project."
- "54. Without exception – The term "without exception", when used in the Contract Documents following the name of a Supplier or a proprietary item of equipment, product, or material, shall mean that the sources of the product are limited to the listed Suppliers or products and that no like, equivalent, or "or-equal" item and no substitution will be considered."
- "55. Written Notice – Notice to any party which is in writing and which shall be considered delivered and the service thereof completed once posted by certified or registered mail to the party to whom the notice is sent at its last given address or delivered in person to said party or its authorized representative on the work."

SC-102. TERMINOLOGY. Add the following paragraphs G, H, and I.

"G. Imperative Mood. These specifications are written to the BIDDER before the award of the Contract and to the CONTRACTOR after award of the Contract. The sentences that direct the CONTRACTOR to perform work are mostly written as commands. For example, a requirement to provide cold-weather protection would be expressed as, 'Provide cold-weather protection for concrete,' rather than 'The Contractor shall provide cold-weather protection for concrete.' In the imperative mood, the subject "the Bidder" or "the Contractor" is understood.

SC-2. PRELIMINARY MATTERS.

SC-2.02. Copies of Documents. Delete the second sentence of paragraph 2.02.A and insert the following new sentence in its place:

"Two (2) sets of contract drawings and specifications will be furnished the Contractor without charge. Additional sets will be furnished upon request at the cost of reproduction. The Contractor shall keep one (1) set of approved plans and specifications on the site of the work. This set shall be kept current by addition of all approved changes, addenda and amendments thereto. One set of as-built plans shall be returned to the Owner after the project is complete."

The plans and specifications are intended to be complementary; but should any discrepancy appear or any misunderstanding arise as to the import of anything

contained in either, the decision of the District shall be final and binding on the Contractor. The District may make any corrections of errors or omissions in the drawings and specifications when such corrections are necessary for the proper fulfillment of their intention as construed by the District.

All work or materials shown on the plans and not mentioned in the specifications or any work specified and not shown on the plans, shall be furnished, performed and done by the Contractor as if the same were both mentioned in the specifications and shown on the plans.

Should the Contractor in preparing its bid find anything necessary for the construction of the project that is not mentioned in the specifications or shown on the plans, or any discrepancy, it shall notify the District so that such items may be included. Should the Contractor fail to notify the District of such items, it will be assumed that its bid included everything necessary for the complete construction in the spirit and intent of the designs shown.

In case of discrepancy, figure dimensions shall govern over scale dimensions, large-scale details shall govern over small-scale drawings, plans shall govern over specifications, detailed technical specifications shall govern over general specifications, and the more restrictive specifications shall prevail."

SC-2.03. Commencement of Contract Times; Notice to Proceed. Delete the paragraph and insert in its place:

"A. The Contract Times will commence to run on the day indicated in the Notice to Proceed. The date for the Contract Times may be extended by mutual agreement between the OWNER and the CONTRACTOR."

SC-2.05. Before Starting Construction. Amend paragraphs 2.05.A and 2.05.B by striking out the word "Engineer" in all locations where it appears in the paragraphs and inserting the word "Owner" in its place.

SC-2.06. Preconstruction Conference. Delete paragraph 2.06.A in its entirety and insert the following new paragraph in its place:

If requested by Owner, within 20 days after the Contract Times start to run, but before any work at the Site is started, a conference attended by Contractor, Owner, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.05.B, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

SC-2.07. Initial Acceptance of Schedules. Amend paragraph 2.07.A, including paragraphs 2.07.A.1, 2.07.A.2, and 2.07.A.3, by striking out the word "Engineer" in all locations where it appears in the paragraph and inserting the word "Owner" in its place.

SC-3. CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE.

SC-3.01. Intent. Amend paragraph 3.01.C by striking out the word "Engineer" and inserting the word "Owner" in its place.

SC-3.03. Reporting and Resolving Discrepancies. Amend paragraph 3.03.A by striking out the word "Engineer" and inserting the word "Owner" in its place.

SC-3.04. Amending and Supplementing Contract Documents. Amend paragraph 3.04.B by striking out the word "Engineer" and inserting the word "Owner" in its place.

SC-4. AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS.

SC-4.02. Subsurface and Physical Conditions. Delete Paragraph 4.02.A in its entirety and insert the following new paragraph in its place:

- A. *Reports and Drawings:* No reports of explorations and tests of subsurface conditions at or contiguous to the Site have been prepared, and no drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site are available.

SC-4.03. Differing Subsurface or Physical Conditions.

Replace paragraph 4.03.A with the following:

"A. Notice: If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

"1. Is of such nature as to require a change in the Contract Documents; or

"2. Differs materially from that shown or indicated in the Contract Documents; or

"3. Is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent on work of the character provided for in the Contract Documents;

"then CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any work in connection therewith (except in an emergency as required by paragraph 6.16.A), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such condition or perform any work in connection therewith (except as aforesaid) until receipt of written order to do so."

Delete paragraph 4.03.B in its entirety and insert the following new paragraph in its place:

- B. *Owner's Review.* After receipt of written notice as required by paragraph 4.03.A, Owner will promptly review the pertinent condition, determine the necessity if obtaining additional explorations or tests with respect thereto, and advise Contractor in writing of Owner's findings and conclusions.

SC-4.04. Underground Facilities.

Add the following immediately after paragraph 4.04.A.2.

"4.04.A.3 Location of Subsurface Utilities.

- "a. The location of subsurface utilities is shown on the plans from information furnished by the utility owners.
- "b. The CONTRACTOR shall, no later than 2 working days, excluding Saturdays, Sundays, and legal holidays, prior to construction in the area of the subsurface utility, notify the subsurface utility Owner in writing, by telephone, or in person. The marking or locating shall be coordinated to stay approximately 2 days ahead of the planned construction.
- "c. The CONTRACTOR shall alert immediately the occupants of nearby premises as to any emergency that it may create or discover at or near such premises.
- "d. The CONTRACTOR shall have full responsibility for coordination of the work with owners of such underground facilities during construction, for the safety and protection thereof as provided in paragraph 6.13 and repairing any damage thereto resulting from the work, the cost of all of which will be considered as having been included in the Contract Price.

"4.04.A.4 Where existing utilities and structures are indicated as being in the line of the proposed improvement, the CONTRACTOR shall expose them sufficiently in advance of the construction operations to permit adjustments in line or grade, if required, to eliminate interferences.

"4.04.A.5 Existing pipes or conduits crossing a trench, or otherwise exposed, shall be adequately braced and supported to prevent movement during construction.

"4.04.A.6 Broken Utility Services.

- "a. Utility services broken or damaged shall be repaired at once to avoid inconvenience to customers and utility owners.
- "b. Temporary arrangements, as approved by the ENGINEER, may be used until any damaged items can be permanently repaired.
- "c. All items damaged or destroyed by construction and subsequently repaired must be properly maintained by the CONTRACTOR.
- "d. CONTRACTOR must work 24 hours a day until service is restored to a damaged utility.

"4.04.A.7 Existing Utility Relocation.

"a. Where it is necessary to relocate an existing utility or structure, the work shall be done in such manner as is necessary to restore it to a condition equal to that of the original utility or structure.

"b. No such relocation shall be done until approval is received from the authority responsible for the utility or structure being changed."

Amend the first sentence of paragraph 4.04.B.1 by striking out the words "and Engineer".

Amend the second sentence of paragraph 4.04.B.2 by striking out the word "Engineer" and inserting the word "Owner" in its place.

Amend the first sentence of paragraph 4.04.B.2 by striking out the word "Engineer" and inserting the word "Owner" in its place.

Add the following new paragraph immediately after paragraph 4.04.B:

Generally, service connections are not indicated on the Drawings. Contractor shall be responsible for discovery of existing underground installations, in advance of excavating or trenching, by contacting all local utilities and by prospecting.

SC-4.06 Hazardous Environmental Conditions at Site.

Delete paragraph 4.06.A. in its entirety and substitute the following paragraph therefore:

A. The following reports and drawings related to Hazardous Environmental Conditions identified at the Site are known to Owner: (None).

Amend paragraph 4.06.B by adding the words "that is created by, or" immediately after the words "a Hazardous Environmental Condition" in the fourth line.

Amend paragraph 4.06.G by deleting all words following the words "Hazardous Environmental Condition" in the seventh line and substituting therefore the following words: "was created by Owner or by anyone for whom Owner is responsible, other than Contractor and all persons, subcontractors and entities for which Contractor is responsible."

SC-5. BONDS AND INSURANCE.

SC-5.02. Licensed Sureties and Insurers. Add the following new sentence at the end of paragraph 5.02.A:

The surety company shall be rated "A" by AM BEST.

SC-5.03. Certificates of Insurance. Add the following new sentence at the end of paragraph 5.03.A:

Contractor shall deliver to Owner properly completed certificates of insurance prior to the start of any Work at the Site, on the forms included in the Contract Documents.

SC-5.04. Contractor's Insurance.

Add the following new paragraphs immediately after paragraph 5.04.A.6:

7. Claims arising out of pollution and excluded from the Contractor's general liability and comprehensive automobile liability policies. This insurance shall be coordinated with the Contractor's general liability policy and shall provide bodily injury and property damage coverage similar to the Contractor's general liability policy. Coverage shall include contractual liability.

Add the following new paragraphs immediately after paragraph 5.04.B.6:

7. contain a cross liability or severability of interest clause or endorsement. Insurance covering the specified additional insureds shall be primary insurance, and all other insurance carried by the additional insureds shall be excess insurance;
8. with respect to workers' compensation and employers' liability, comprehensive automobile liability, commercial general liability, and umbrella liability insurance, and all other liability insurance specified herein to be provided by Contractor, Contractor shall require its insurance carriers to waive all rights of subrogation against Owner, Engineer, and their respective officers, directors, partners, employees, and agents.

Add the following new paragraphs immediately after paragraph 5.04.B:

- C. The insurance required by paragraph 5.04 shall include coverage as necessary for the benefits provided under the United States Longshoremen's and Harbor Workers' Act and the Jones Act. This policy shall include an "all states" endorsement.
- D. The limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts but shall provide coverage in greater amounts where required by Laws and Regulations. This coverage may be primary or a combination of primary and umbrella excess liability.
 1. Workers' Compensation, and related coverage under paragraphs 5.04.A.1 and 5.04.A.2 of the General Conditions:

a. State	Statutory
b. Applicable Federal (e.g., Longshoreman's)	Statutory
b. Employer's Liability	\$1,000,000 each occurrence
 2. Commercial General Liability under paragraphs 5.04.A.3 through 5.04.A.6 of the General Conditions shall be occurrence type, written in comprehensive form, and shall protect Contractor, Owner, and Engineer as additional insureds, against claims arising from injuries, sickness, disease, or death of

any person or damage to property arising out of performance of the Work. The policy shall also include a per project aggregate limit endorsement, personal injury liability coverage, contractual liability coverage for blasting, explosion, collapse of buildings, and damage to underground property.

- a. General Aggregate \$1,000,000
- b. Products – Completed Operations Aggregate \$1,000,000
- c. Personal and Advertising Injury \$1,000,000
- d. Each Occurrence (Bodily Injury and Property Damage) \$1,000,000
- e. Property Damage liability insurance will provide Explosion, Collapse and Underground coverage's where applicable.

- 3. Automobile Liability under paragraph 5.04.A.6 of the General Conditions shall be occurrence type, written in comprehensive form, and shall protect Contractor, Owner, and Engineer as additional insureds, against all claims for injuries to members of the public and damage to property of others arising from the use of motor vehicles, either on or off the project site whether they are owned, nonowned, or hired. The liability limit shall be not less than:

- a. Bodily Injury
 - Each Person \$1,000,000
 - Each Accident \$1,000,000
- b. Property Damage
 - Each Accident \$1,000,000
- c. Combined Single Limit \$1,000,000

- 4. Umbrella Liability Insurance shall protect Contractor, Owner, and Engineer as additional insureds, against claims in excess of the limits provided under workers' compensation and employers' liability, comprehensive automobile liability, and commercial general liability policies. The umbrella policy shall follow the forms of the primary insurance, including the application of the primary limits. The liability limits shall be not less than:

- Bodily injury and Property damage \$4,000,000 combined single limit for each occurrence
- \$4,000,000 general aggregate

SC-5.05. Owner's Liability Insurance. Delete paragraph 5.05 in its entirety and insert the following new paragraph in its place:

5.05. *Owner's Liability Insurance.* This insurance shall be obtained by Contractor and issued in the name of Owner, and shall protect and defend Owner against claims arising as a result of the operations of Contractor or Contractor's Subcontractors. The liability limits shall be not less than:

- | | | |
|----|-------------------|-------------|
| a. | Bodily Injury | |
| | Each Occurrence | \$1,000,000 |
| | General Aggregate | \$1,000,000 |
| b. | Property Damage | |
| | Each Occurrence | \$1,000,000 |
| | General Aggregate | \$1,000,000 |

SC-5.06. Property Insurance. Delete paragraph 5.06 in its entirety and insert the following new paragraphs in their place:

5.06. *Property Insurance*

- A. Contractor shall purchase and maintain property insurance coverage upon the Work at the Site in the amount of the full replacement cost thereof. This insurance shall:
1. include the interests of Owner, Contractor, Subcontractors, Engineer, Engineer's Consultants, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an additional insured;
 2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, flood, damage caused by frost and freezing, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;
 3. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment accepted by Owner;
 4. include expenses incurred in the repair or replacement of any insured property (including, but not limited to, fees and charges of engineers and architects);
 5. allow for partial utilization of the Work by Owner;
 6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer, with 30 days' written notice to each other additional insured to whom a certificate of insurance has been issued.

B. Contractor shall be responsible for any deductible or self-insured retention.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with paragraph 5.06 shall contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.07.

D. If Owner requests in writing that other special insurance be included in the property insurance policies provided under paragraph 5.06, Contractor shall, if possible, include such insurance, and the cost thereof will be charged to Owner by appropriate Change Order or Written Amendment. Prior to commencement of the Work at the Site, Contractor shall in writing advise Owner whether or not Contractor has procured such other special insurance.

SC-6. CONTRACTOR'S RESPONSIBILITIES.

SC-6.02. Labor; Working Hours. Add the following new paragraphs immediately after paragraph 6.02.B:

C. No Work shall be done between 6:00 p.m. and 7:00 a.m. without permission of Owner. However, emergency work may be done without prior permission.

D. Night Work may be undertaken as a regular procedure with the permission of Owner; such permission, however, may be revoked at any time by Owner if Contractor fails to maintain adequate equipment and supervision for the proper prosecution and control of the Work at night.

SC-6.03. Services, Materials, and Equipment. Amend the second sentence of paragraph 6.03.B by striking out the word "Engineer" and inserting the word "Owner" in its place.

SC-6.04. Progress Schedule. Amend the first sentence of paragraph 6.04.A.1 by striking out the word "Engineer" and inserting the word "Owner" in its place.

SC-6.05. Substitutes and "Or-Equals". Amend paragraph 6.05, including paragraphs 6.05.A, 6.05.A.1, 6.05.A.1.a, 6.05.A.1.b, 6.05.A.2, 6.05.A.2.a, 6.05.A.2.b, 6.05.A.2.c, 6.05.A.2.d, 6.05.B, 6.05.C, 6.05.D, and 6.05.E by striking out the words "Engineer" and "Engineer's" in all locations where they appear in the paragraph and inserting the words "Owner" and "Owner's", respectively, in their place.

Add the following new paragraph after paragraph 6.05.A.2.d:

e. "If a proposed substitute item is accepted, all incidental costs associated with the use of the substitute including, but not limited to, redesign, claims of other Contractors, changes to electrical supply equipment, additional equipment or material required for the installation, etc., shall be at the expense of the Contractor proposing the substitute unless otherwise agreed to by the Owner."

SC-6.08. Permits. Add the following new paragraph immediately after paragraph 6.08.A:

B. Owner will obtain and pay for the following permits: Road & Highway Encroachment Permits, Kentucky Division of Water, and Stream Crossing Permits (including a Section 404 permit from the Corps of Engineers if applicable).

SC-6.09. Laws and Regulations. Add the following new paragraph immediately after paragraph 6.09.C:

D. Employment requirements shall be as specified herein and in the attachments at the end of the Supplementary Conditions.

SC-6.10. Taxes. Add the following new paragraph immediately after Paragraph 6.10.A of the General Conditions:

B. Portions of this project may be exempt from taxes. It is the Contractor's responsibility to determine any applicable exemptions.

SC-6.12. Record Documents. Amend the second sentence of paragraph 6.12.A by striking out the word "Engineer" and inserting the word "Owner" in its place.

Amend the third sentence of paragraph 6.12.A by striking out the words "Engineer for".

SC-6.16. Emergencies. Amend paragraph 6.16 by striking out the word "Engineer" in all locations where it appears in the paragraph and inserting the word "Owner" in its place.

Add the following new paragraph immediately after paragraph 6.16.A:

B. The Contractor understands and agrees that during the performance of the Contract, it shall maintain a presence within such proximity of the Work Site which will allow it to respond to an emergency at the Work Site within one hour of receiving notice of an emergency, including emergencies occurring during non-working hours. The Contractor shall provide a list of emergency phone numbers for such purposes. If the Contractor does not have such a presence, it may satisfy this requirement by sub-contracting with a sub-contractor that does have such a presence, provided that any such sub-contractor must be approved by the Owner, in its sole discretion, prior to the project pre-construction meeting.

SC-6.17. Shop Drawings and Samples. Amend paragraph 6.17, including paragraphs 6.17.A, 6.17.B, 6.17.C, 6.17.D, 6.17.D.1, 6.17.D.1.a, 6.17.D.1.b, 6.17.D.1.c, 6.17.D.1.d, 6.17.D.2, 6.17.D.3, 6.17.E.1, 6.17.E.2, 6.17.E.3, and 6.17.F.1 by striking out the words "Engineer" and "Engineer's" in all locations where they appear in the paragraph and inserting the words "Owner" and "Owner's", respectively, in their place.

SC-6.19. Contractor's General Warranty and Guarantee. Amend paragraph 6.19.C.1 by adding the words "or Owner" at the end of the paragraph.

Amend paragraph 6.19.C.2 by striking out the words "recommendation by Engineer or".

Amend paragraph 6.19.C.3 by striking out the words "by Engineer".

Amend paragraph 6.19.C.6 by striking out the word "Engineer" and inserting the word "Owner" in its place.

Delete paragraph 6.19.C.7 and substitute the following new paragraph therefore:

7. any correction of defective Work by Owner; or

Add the following new paragraph immediately after paragraph 6.19.C.7:

8. any expiration of a correction period.

SC-7. OTHER WORK.

SC-7.01. Related Work at Site. Amend paragraphs 7.01.B and 7.01.C by striking out the word "Engineer" in all locations where it appears in the paragraphs and inserting the word "Owner" in its place.

SC-8. OWNER'S RESPONSIBILITIES.

SC-8.01. Communications to Contractor. Amend paragraph A by striking out "through Engineer".

SC-8.02. Replacement of Engineer. Delete paragraph 8.02 in its entirety.

SC-9. ENGINEER'S STATUS DURING CONSTRUCTION.

SC-9.01. Owner's Representative. Delete paragraph 9.01 in its entirety.

SC-9.02. Visits to Site. Amend paragraphs 9.02.A and 9.02.B by striking out the words "Engineer" and "Engineer's" in all locations where they appear in the paragraph and inserting the words "Owner" and "Owners", respectively, in their place. Add following new paragraph:

B. Engineer may make visits to the Site as Owner deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, at the request and benefit of Owner, may determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will advise Owner of the progress of the Work and will endeavor to guard Owner against defective Work.

SC-9.04. Clarifications and Interpretations. Amend paragraph 9.04 by striking out the word “Engineer” in all locations where it appears in the paragraph and inserting the word “Owner” in its place.

SC-9.05. Authorizing Variations in Work. Amend paragraph 9.05 by striking out the word “Engineer” in all locations where it appears in the paragraph and inserting the word “Owner” in its place.

SC-9.06. Rejecting Defective Work. Amend paragraph 9.06 by striking out the word “Engineer” in all locations where it appears in the paragraph and inserting the word “Owner” in its place.

SC-9.07. Shop Drawings, Change Orders and Payments. Delete paragraph 9.07 in its entirety.

SC-9.08. Determinations for Unit Price Work. Delete paragraph 9.08 in its entirety.

SC-9.09. Decisions on Requirements of Contract Documents and Acceptability of Work. Delete paragraph 9.09 in its entirety.

SC-9.10. Limitations on Engineer’s Authority and Responsibilities. Delete paragraph 9.10.D in its entirety.

SC-10. CHANGES IN THE WORK.

SC-10.03. Execution of Change Orders. Amend paragraph 10.03.A by striking out the words “recommended by Engineer”.

Amend paragraph 10.03.A.3 by striking out the word “Engineer” and inserting the word “Owner” in its place.

SC-10.05. Claims and Disputes. Amend paragraph 10.05 by deleting paragraphs 10.05.A, 10.05.B, 10.05.B.1, 10.05.B.2, and 10.05.C in their entirety and inserting the following new paragraphs in their place:

A. *Notice*. Written notice stating the general nature of each Claim, dispute, or other matter shall be delivered by Contractor to Owner no later than 30 days after the start of the event giving rise thereto. Notice of the amount of extent of the Claim, dispute, or other matter with supporting data shall be delivered to Owner within 60 days after the start of such event, unless the Owner allows, in writing, additional time for Contractor to submit additional or more accurate data in support of such Claim, dispute, or other matter. A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of paragraph 12.02.B. Each Claim shall be accompanied by Contractor’s written statement that the adjustment claimed is the entire adjustment to which Contractor believes it is entitled as a result of said event.

B. *Owner’s Decisions*. Owner will render a formal decision in writing within 30 days after receipt of the last submittal of Contractor.

C. If Owner does not render a formal decision in writing within the time stated in paragraph 10.05.B, a decision denying the Claim in its entirety shall be deemed to have been issued 31 days after receipt of the last submittal of Contractor, unless Owner notifies Contractor in writing that a formal decision is pending and will be rendered within a specified number of days or by a specified date.

SC-11. COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK.

SC-11.01. Cost of the Work. Amend the second sentence of paragraph 11.01.A.3 by striking out the words “with the advice of Engineer”.

Amend paragraph 11.01.D by striking out the word “Engineer” and inserting the word “Owner” in its place.

SC-11.02. Cash Allowances. Amend paragraph 11.02.A by striking out the words “and Engineer”.

Amend paragraph 11.02.B by striking out the words “as recommended by Engineer”.

SC-11.9. Unit Price Work. Add the following new paragraph immediately after paragraph 11.9.3.3

11.9.4. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment by Change Order if the variation in the actual quantity of an item of Unit Price Work performed by Contractor differs by more than 25 percent from the estimated quantity of that item indicated in the Bid.

SC-12. CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES.

SC-12.01. Change of Contract Price. Delete paragraph 12.01.A in its entirety and insert the following new paragraph in its place:

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by Contractor to Owner in accordance with the provisions of paragraph 10.05.

SC-12.02. Change of Contract Times. Delete paragraph 12.02.A in its entirety and insert the following new paragraph in its place:

A. The Contract Times (or Milestones) may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times (or Milestones) shall be based on written notice submitted by Contractor to owner in accordance with the provisions of paragraph 10.05.

SC-12.03. Delays. Insert the following new sentence following the first sentence of paragraph 12.03.A:

This extension shall be Contractor’s sole and exclusive remedy for such delay.

Insert the following new paragraph 12.03.F immediately after paragraph 12.03.E:

F. In no event shall Owner be liable to Contractor, any Subcontractor, any Supplier, or any other person or organization, or to any surety for or employee or agent of any of them, for damages (including acceleration costs) arising out of or resulting from any delay.

SC-13. TESTS AND INSPECTIONS: CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK.

SC-13.02. Access to Work. Add the following new paragraph immediately after paragraph 13.02.A:

B. Authorized representatives of the U.S. Environmental Protection Agency and the Kentucky Division of Water shall have access to the Work whenever it is in preparation or progress. Contractor shall provide proper facilities for such access and inspection.

SC-13.03. Tests and Inspections. Amend paragraph 13.03.A by striking out the word "Engineer" and inserting the word "Owner" in its place.

Amend paragraph 13.03.C by striking out the word "Engineer" and inserting the word "Owner" in its place.

Amend paragraph 13.03.E by striking out the word "Engineer" in both locations where it appears in the paragraph and inserting the word "Owner" in its place.

Amend paragraph 13.03.F by striking out the word "Engineer" in both locations where it appears in the paragraph and inserting the word "Owner" in its place.

SC-13.04. Uncovering Work. Amend paragraph 13.04.A by striking out the words "Engineer" and "Engineer's" in all locations where they appear in the paragraph and inserting the words "Owner" and "Owner's", respectively, in their place.

Delete paragraph 13.04.B in its entirety and insert the following new paragraph in its place:

B. If Owner considers it necessary or advisable that covered Work be observed by Engineer or Owner's representatives, or inspected or tested by others, Contractor, at Owner's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Owner may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, Contractor shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If, however, such Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the

parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in paragraph 10.05.

SC-13.06. Correction or Removal of Defective Work. Amend paragraph 13.06.A by inserting the words “or Owner” following the word “Engineer”.

SC-13.07. Correction Period. Add the following new paragraph after paragraph 13.07.E:

F. Nothing in Article 13 concerning the correction period shall establish a period of limitation with respect to any other obligation which Contractor has under the Contract Documents. The establishment of time periods relates only to the specific obligations of Contractor to correct the Work, and has no relationship to the time within which Contractor's obligations under the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish Contractor's liability with respect to Contractor's obligations other than to specifically correct the Work.

All machinery, piping, materials, equipment, fittings, and restoration of every kind furnished under this Contract by the Contractor shall be free from defects of manufacture and/or workmanship. The Contractor agrees to replace materials, workmanship, and restoration, which includes all roadway pavement work, shoulder and ditch restoration and repairs, which are found to be defective within twenty four (24) months after issuance of the “Certificate of Substantial Completion”. In cases where such defects shall be caused by forces beyond the Contractor's control, as judged by the Owner, the replacements will not have to be made by the Contractor.

SC-13.08. Acceptance of Defective Work. Delete paragraph 13.08.A in its entirety and insert the following new paragraph in its place:

A. If, instead of requiring correction or removal and replacement of defective Work, Owner, prior to making final payment, prefers to accept it, Owner may do so. Contractor shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work and the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Owner making final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of the Work so accepted. If the acceptance occurs after making final payment, an appropriate amount will be paid by Contractor to Owner.

SC-13.09. Owner May Correct Defective Work. Amend paragraph 13.09.A by striking out the word “Engineer” in all locations where it appears in the paragraph and inserting the word “Owner” in its place.

SC-14. PAYMENTS TO CONTRACTOR AND COMPLETION.

SC-14.01. Schedule of Values. Amend paragraph 14.01.A by striking out the word “Engineer” and inserting the word “Owner” in its place.

SC-14.02. Progress Payments. Amend paragraph 14.02.A by striking out the word "Engineer" and inserting the word "Owner" in its place.

Add the following new paragraphs immediately after paragraph 14.02.A.3:

4. Contractor's Applications for Payment shall be accompanied by the documentation specified herein.
5. Payments for stored materials and equipment shall be based only upon the actual cost to Contractor of the materials and equipment and shall not include any overhead or profit to Contractor. Partial payments will not be made for undelivered materials or equipment.
6. During the progress of the Work, each Application for Payment shall be accompanied by Contractor's updated schedule of operations, or progress report, with such shop drawings schedules, procurement schedules, value of material on hand included in application, and other data specified in Contract Documents or reasonably required by Owner.

Delete paragraphs 14.02.B and 14.02.C in their entirety and insert the following new paragraphs in their place:

B. Review of Applications

1. Owner will, within 10 days after receipt of each Application for Payment, either begin processing the Application for Payment to Contractor or return the Application to Contractor indicating in writing Owner's reasons for refusing payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Owner's review of Contractor's Application for Payment will consider whether the following have been achieved:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.08, and to any other qualifications as reasonably applied by Owner); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as Owner or Engineer has observed the Work.
3. By processing and making such payment Owner will not thereby be deemed to have represented that:

- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work; or
- b. that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Owner's review of Contractor's Work for the purposes of processing payments nor Owner's making any such payments, including final payment, will impose responsibility on Owner:

- a. to supervise, direct, or control the Work, or
- b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
- c. for Contractor's performance of the Work.
- d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
- e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Owner may refuse to process or make the whole or any part of any payment if, in Owner's opinion, the criteria referred to in paragraph 14.02.B.2 has not been met. Owner may also refuse to process or make any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment previously made, to such extent as may be necessary in Owner's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Written Amendment or Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with paragraph 13.09; or
- d. Owner has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.A.

Delete paragraphs 14.02.C in its entirety and insert the following new paragraphs in its place:

C. Payment Becomes Due

1. Twenty-five days after presentation of the Application for Payment to Owner, the amount recommended will (subject to the provisions of paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

Amend paragraph 14.02.D.1 by striking out the words “recommended by Engineer” and inserting the words “requested by Contractor” in their place.

Delete paragraph 14.02.D.2 in its entirety and insert the following new paragraph in its place:

2. If Owner refuses to make payment of the full amount requested by Contractor, Owner must give Contractor immediate written notice stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner’s satisfaction the reasons for such action.

SC-14.04. Substantial Completion. Delete paragraph 14.04.A in its entirety and insert the following new paragraph in its place:

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Owner issue a certificate of Substantial Completion.

B. Promptly thereafter, Owner and Contractor shall make an inspection of the Work to determine the status of completion. If Owner does not consider the Work substantially complete, Owner will notify Contractor in writing giving the reasons therefor.

C. If Owner considers the Work substantially complete, Owner will within 14 days after the inspection of the Work execute and deliver to Contractor a statement of Substantial Completion.

D. At the time of delivery of the certificate of Substantial Completion, Owner will deliver to Contractor a statement as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor subsequently agree otherwise in writing, Owner’s aforesaid statement will be binding on Owner and Contractor until final payment.

Add the following new paragraphs following paragraph 14.04.A:

To be considered substantially complete, the following portions of the Work must be operational and ready for Owner's continuous use as intended: Water main is tested and placed into service, services are connected to the new main if applicable to the project, and rough restoration is complete.

Portions of the Work not essential to operation, which can be completed without interruption of the Owner’s operation, may be completed after the Work is accepted as

substantially complete, and may include the following items: final restoration such as seeding and sodding.

SC-14.05. Partial Utilization. Amend paragraph 14.05.A by striking out the word “Engineer”.

SC-14.06. Final Inspection. Delete paragraph 14.06.A in its entirety and insert the following new paragraph in its place:

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Owner and Contractor shall promptly make a final inspection of the Work. Owner will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

SC-14.07. Final Application for Payment. Amend paragraph 14.07.A.1 by striking out the word “Engineer” and inserting the word “Owner” in its place.

Add the following new sentence immediately after the last sentence of paragraph 14.07.A.2.b.:

Consent of the surety, signed by an agent, must be accompanied by a certified copy of such agent's authority to act for the surety. The Contractor shall be responsible for providing all of the documents identified in this paragraph.

Delete paragraph 14.07.B in its entirety and insert the following new paragraph in its place:

B. *Review of Application and Acceptance*. If, on the basis of Owner’s observation of the Work during construction and final inspection, and Owner’s review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Owner is satisfied that the Work has been completed and Contractor’s other obligations under the Contract Documents have been fulfilled, Owner will process the final Application for Payment. Otherwise, Owner will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to process final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

Amend paragraph 14.07.C by striking out the words “recommended by Engineer” and inserting the words “requested by Contractor” in their place.

SC-14.08. Final Completion Delayed. Delete paragraph 14.08.A in its entirety and insert the following new paragraph in its place:

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, Owner shall, upon receipt of Contractor’s final Application for Payment, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Owner with the Application

for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

SC-15. SUSPENSION OF WORK AND TERMINATION.

SC-15.01. Owner May Suspend Work. Amend paragraph 15.01.A by striking out the words “and Engineer”.

SC-15.02. Owner May Terminate for Cause. Amend paragraph 15.02.B by deleting the fourth sentence of the paragraph, in its entirety, which begins: “Such Claims, costs, losses, and damages incurred...”.

SC-15.04. Contractor May Stop Work or Terminate. Delete paragraph 15.04.A and 15.04.B in their entirety and insert the following new paragraph in its place:

A. If, through no act or fault of Contractor, the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or Owner fails to act on any Application for Payment within 30 days after it is submitted, or Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner, and provided Owner does not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph 15.04 are not intended to preclude Contractor from making a Claim under paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor’s stopping the Work as permitted by this Paragraph.

SC-16. DISPUTE RESOLUTION.

Delete Article 16 in its entirety and insert the following new article in its place:

ARTICLE 16 - DISPUTES.

Arbitration will not be acceptable as a means for settling claims, disputes, and other matters.

SC-17. MISCELLANEOUS.

SC-17.04. Survival of Obligations. Add the following new paragraph immediately after paragraph 17.04.A:

B. Contractor shall obtain from all Suppliers and manufacturers any and all warranties and guarantees of such Suppliers and manufacturers, whether or not specifically required by the Specifications, and shall assign such warranties and guarantees to Owner. With respect thereto, Contractor shall render reasonable assistance to Owner

when requested, in order to enable Owner to enforce such warranties and guarantees. The assignment of any warranties or guarantees shall not affect the Correction Period or any other provisions of these Contract Documents.

End of Section

SUPPLEMENTAL GENERAL CONDITIONS

FOR

CLEAN WATER STATE REVOLVING FUND

DRINKING WATER STATE REVOLVING FUND

(Drinking Water and Wastewater)

Project Name: Newport Water Main Replacement

Project Number: Phase 4 of WX21037311

The attached instructions and regulations as listed below shall be incorporated into the Specifications and comprise Special Conditions.

	<u>Attachment No.</u>
SRF Special Provisions	1
KRS Chapter 45A Kentucky Model Procurement Code	2
Equal Employment Opportunity (EEO) Documents:	
Notice of Requirement for Affirmative Action	3
Construction Contract Specifications	4
EEO Goals for Region 4 Economic Areas	5
Check List of EEO Documentation for Bidders	6
Employer Information Report EEO-1 (SF 100)	7
Labor Standards Provisions for Federally Assisted Construction	8
Certifications:	
Debarment, Suspension and Other Responsibility Matters	9
Anti-lobbying	10
Disadvantaged Business Enterprise (DBE) Program	11
Bonds and Insurance	12
Storm Water General Permit	13
Davis-Bacon Wage Rate Requirements	14
American Iron and Steel Requirement	15

SRF SPECIAL PROVISIONS

- (a) Line crossings of all roads and streets shall be done in accordance with the Kentucky Transportation Cabinet requirements as may be set forth in the Special Conditions.
- (b) Construction is to be carried out so as to prevent by-passing of flows during construction unless a schedule has been approved by the State or EPA, whichever is applicable. Siltation and soil erosion must be minimized during construction. All construction projects with surface disturbance of more than 1 acre during the period of construction must have a KPDES Storm Water General Permit. The permit can be found at this [webpage](#).

If you have any questions regarding the completion of this form call the Surface Water Permits Branch at (502) 564-3410.
- (c) Restore disturbed areas to original or better condition.
- (d) Use of Chemicals: All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of either DOW or EPA. Use of all such chemicals and disposal of residues shall be in conformance with instructions on the manufacturer's label.
- (e) The construction of the project, including the letting of contracts in connection therewith, shall conform to the applicable requirements of state, territorial, and local laws and ordinances to the extent that such requirements do not conflict with Federal laws and this subchapter.
- (f) The owner shall provide and maintain competent and adequate supervision and inspection.
- (g) The Kentucky Infrastructure Authority and Kentucky Division of Water shall have access to the site and the project work at all times.
- (h) In the event Archaeological materials (arrowheads, stone tools, stone axes, prehistoric and historic pottery, bottles, foundations, Civil War artifacts, and other types of artifacts) are uncovered during the construction of this project, work is to immediately cease at the location and the Kentucky Heritage Council shall be contacted. The telephone number is (502) 564-7005. Construction shall commence at this location until a written release is received from the Kentucky Heritage Council. Failure to report a find could result in legal action.
- (i) This procurement will be subject to DOW Procurement Guidance including the Davis-Bacon Act.
- (j) Reasonable care shall be taken during construction to avoid damage to vegetation. Ornamental shrubbery and tree branches shall be temporarily tied back, where appropriate, to minimize damage. Trees which receive damage to branches shall be trimmed of those branches to improve the appearance of the tree. Tree trunks receiving damage from equipment shall be treated with a tree dressing.
- (k) No wastewater bypassing will occur during construction unless a schedule has been approved by the Kentucky Division of Water.
- (l) Change orders to the construction contract (if required) must be negotiated pursuant to DOW/KIA Procurement Guidance for Construction and Equipment Contracts.

KRS CHAPTER 45A
KENTUCKY MODEL PROCUREMENT CODE

45A.075 Methods of awarding state contracts.

Except as otherwise authorized by law, all state contracts shall be awarded by:

- (1) Competitive sealed bidding, pursuant to KRS 45A.080; or
- (2) Competitive negotiation, pursuant to KRS 45A.085 and 45A.090 or 45A.180; or
- (3) Noncompetitive negotiation, pursuant to KRS 45A.095; or
- (4) Small purchase procedures, pursuant to KRS 45A.100.

Effective: June 24, 2003

History: Amended 2003 Ky. Acts ch. 98, sec. 4, effective June 24, 2003. -- Created 1978 Ky. Acts ch. 110, sec. 16, effective January 1, 1979.

45A.080 Competitive sealed bidding.

(1) Contracts exceeding the amount provided by KRS 45A.100 shall be awarded by competitive sealed bidding, which may include the use of a reverse auction, unless it is determined in writing that this method is not practicable. Factors to be considered in determining whether competitive sealed bidding is not practicable shall include:

- (a) Whether specifications can be prepared that permit award on the basis of best value; and
- (b) The available sources, the time and place of performance, and other relevant circumstances as are appropriate for the use of competitive sealed bidding.

(2) The invitation for bids shall state that awards shall be made on the basis of best value. In any contract which is awarded under an invitation to bid which requires delivery by a specified date and imposes a penalty for late delivery, if the delivery is late, the contractor shall be given the opportunity to present evidence that the cause of the delay was beyond his control. If it is the opinion of the purchasing officer that there is sufficient justification for delayed delivery, the purchasing officer may adjust or waive any penalty that is provided for in the contract.

(3) Adequate public notice of the invitation for bids and any reverse auction shall be given a sufficient time prior to the date set forth for the opening of bids or beginning of the reverse auction. The notice may include posting on the Internet or publication in a newspaper or newspapers of general circulation in the state as determined by the secretary of the Finance and Administration Cabinet not less than seven (7) days before the date set for the opening of the bids and any reverse auction. The provisions of this subsection shall also apply to price contracts and purchase contracts of state institutions of higher education.

(4) Bids shall be opened publicly or entered through a reverse auction at the time and place designated in the invitation for bids. At the time the bids are opened, or the reverse auction has ended, the purchasing agency shall announce the agency's engineer's estimate, if applicable, and make it a part of the agency records pertaining to the letting of any contract for which bids were received. Each written or reverse auction bid, together with the name of the bidder and the agency's engineer's estimate, shall be recorded and be open to public inspection. Electronic bid opening and posting of the required information for public viewing shall satisfy the requirements of this subsection.

(5) The contract shall be awarded by written notice to the responsive and responsible bidder whose bid offers the best value.

(6) Correction or withdrawal of written or reverse auction bids shall be allowed only to the extent permitted by regulations issued by the secretary.

Effective: July 15, 2010

History: Amended 2010 Ky. Acts ch. 63, sec. 3, effective July 15, 2010. -- Amended 2000 Ky. Acts ch. 509, sec. 1, effective July 14, 2000. -- Amended 1998 Ky. Acts ch. 120, sec. 10, effective July 15, 1998. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 27, effective May 30, 1997. -- Amended 1996 Ky. Acts ch. 60, sec. 2, effective July 15, 1996. -- Amended 1994 Ky. Acts ch. 278, sec. 1, effective July 15, 1994. -- Amended 1982 Ky. Acts ch. 282, sec. 1, effective July 15, 1982. -- Amended 1979 (1st Extra. Sess.) Ky. Acts ch. 9, sec. 1, effective February 10, 1979. -- Created 1978 Ky. Acts ch. 110, sec. 17, effective January 1, 1979.

45A.085 Competitive negotiation.

(1) When, under administrative regulations promulgated by the secretary or under KRS 45A.180, the purchasing officer determines in writing that the use of competitive sealed bidding is not practicable, and except as provided in KRS 45A.095 and 45A.100, a contract may be awarded by competitive negotiation, which may include the use of a reverse auction.

(2) Adequate public notice of the request for proposals and any reverse auction shall be given in the same manner and circumstances as provided in KRS 45A.080(3).

(3) Contracts other than contracts for projects utilizing an alternative project delivery method under KRS 45A.180 may be competitively negotiated when it is determined in writing by the purchasing officer that the bids received by competitive sealed bidding either are unreasonable as to all or part of the requirements, or were not independently reached in open competition, and for which each competitive bidder has been notified of the intention to negotiate and is given reasonable opportunity to negotiate.

(4) Contracts for projects utilizing an alternative project delivery method shall be processed in accordance with KRS 45A.180.

(5) The request for proposals shall indicate the relative importance of price and other evaluation factors, and any reverse auction procedures.

(6) Award shall be made to the responsible and responsive offeror whose proposal is determined in writing to be the most advantageous to the Commonwealth, taking into consideration price and the evaluation factors set forth in the request for proposals and the reciprocal preference for resident bidders required under KRS 45A.494.

(7) Written or oral discussions shall be conducted with all responsible offerors who submit proposals determined in writing to be reasonably susceptible of being selected for award. Discussions shall not disclose any information derived from proposals submitted by competing offerors. Discussions need not be conducted:

(a) With respect to prices, where the prices are fixed by law, reverse auction, or administrative regulation, except that consideration shall be given to competitive terms and conditions;

(b) Where time of delivery or performance will not permit discussions; or

(c) Where it can be clearly demonstrated and documented from the existence of adequate competition or prior experience with the particular supply, service, or construction item, that acceptance of an initial offer without discussion would result in fair and reasonable best value procurement, and the request for proposals notifies all offerors of the possibility that award may be made on the basis of the initial offers.

Effective: July 15, 2010

History: Amended 2010 Ky. Acts ch. 63, sec. 4, effective July 15, 2010; and ch. 162, sec. 8, effective July 15, 2010. -- Amended 2003 Ky. Acts ch. 98, sec. 5, effective June 24, 2003. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 28, effective May 30, 1997. -- Amended 1979 (1st Extra. Sess.) Ky. Acts ch. 9, sec. 2, effective February 10, 1979. -- Created 1978 Ky. Acts ch. 110, sec. 18, effective January 1, 1979.

45A.090 Negotiation after competitive sealed bidding when all bids exceed available funds.

(1) In the event that all bids submitted pursuant to competitive sealed bidding under KRS 45A.080 result in bid prices in excess of the funds available for the purchase, and the chief purchasing officer determines in writing:

(a) That there are no additional funds available from any source so as to permit an award to the responsive and responsible bidder whose bid offers the best value; and

(b) The best interest of the state will not permit the delay attendant to a resolicitation under revised specifications, or for revised quantities, under competitive sealed bidding as provided in KRS 45A.080, then a negotiated award may be made as set forth in subsections (2) or (3) of this section.

(2) Where there is more than one (1) bidder, competitive negotiations pursuant to KRS 45A.085(3) shall be conducted with the three (3) (two (2) if there are only two (2)) bidders determined in writing to be the most responsive and responsible bidders, based on criteria contained in the bid invitation and the reciprocal preference for resident bidders under KRS 45A.494. Such competitive negotiations shall be conducted under the following restrictions:

(a) If discussions pertaining to the revision of the specifications or quantities are held with any potential offeror, all other potential offerors shall be afforded an opportunity to take part in such discussions; and

(b) A request for proposals, based upon revised specifications or quantities, shall be issued as promptly as possible, shall provide for an expeditious response to the revised requirements, and shall be awarded upon the basis of best value.

(3) Where, after competitive sealed bidding, it is determined in writing that there is only one (1) responsive and responsible bidder, a noncompetitive negotiated award may be made with such bidder in accordance with KRS 45A.095.

Effective: July 15, 2010

History: Amended 2010 Ky. Acts ch. 162, sec. 9, effective July 15, 2010. -- Amended 2003 Ky. Acts ch. 98, sec. 6, effective June 24, 2003. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 29, effective May 30, 1997. -- Created 1978 Ky. Acts ch. 110, sec. 19, effective January 1, 1979.

45A.095 Noncompetitive negotiation.

(1) A contract may be made by noncompetitive negotiation only for sole source purchases, or when competition is not feasible, as determined by the purchasing officer in writing prior to award, under administrative regulations promulgated by the secretary of the Finance and Administration Cabinet or the governing boards of universities operating under KRS Chapter 164A, or when emergency conditions exist. Sole source is a situation in which there is only one (1) known capable supplier of a commodity or service, occasioned by the unique nature of the requirement, the supplier, or market conditions. Insofar as it is practical, no less than three (3) suppliers shall be solicited to submit written or oral quotations whenever it is determined that competitive sealed bidding is not feasible. Award shall be made to the supplier offering the best value. The names of the suppliers submitting quotations and the date and amount of each quotation shall be placed in the procurement file and maintained as a public record. Competitive bids may not be required:

(a) For contractual services where no competition exists, such as telephone service, electrical energy, and other public utility services;

(b) Where rates are fixed by law or ordinance;

(c) For library books;

(d) For commercial items that are purchased for resale;

(e) For interests in real property;

(f) For visiting speakers, professors, expert witnesses, and performing artists;

(g) For personal service contracts executed pursuant to KRS 45A.690 to 45A.725; and

(h) For agricultural products in accordance with KRS 45A.645.

(2) The chief procurement officer, the head of a using agency, or a person authorized in writing as the designee of either officer may make or authorize others to make emergency procurements when an emergency condition exists.

(3) An emergency condition is a situation which creates a threat or impending threat to public health, welfare, or safety such as may arise by reason of fires, floods, tornadoes, other natural or man-caused disasters, epidemics, riots, enemy attack, sabotage, explosion, power failure, energy shortages, transportation emergencies, equipment failures, state or federal legislative mandates, or similar events. The existence of the emergency condition creates an immediate and serious need for services, construction, or items of tangible personal property that cannot be met through normal procurement methods and the lack of which would seriously threaten the functioning of government, the preservation or protection of property, or the health or safety of any person.

(4) The Finance and Administration Cabinet may negotiate directly for the purchase of contractual services, supplies, materials, or equipment in bona fide emergencies regardless of estimated costs. The existence of the emergency shall be fully explained, in writing, by the head of the agency for which the purchase is to be made. The explanation shall be approved by the secretary of the Finance and Administration Cabinet and shall include the name of the vendor receiving the contract along with any other price quotations and a written determination for selection of the vendor receiving the contract. This information shall be filed with the record of all such purchases and made available to the public. Where practical, standard specifications shall be followed in making emergency purchases. In any event, every effort should be made to effect a competitively established price for purchases made by the state.

Effective: July 15, 2002

History: Amended 2002 Ky. Acts ch. 344, sec. 9, effective July 15, 2002. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 30, effective May 30, 1997. -- Amended 1990 Ky. Acts ch. 496, sec. 4, effective July 13, 1990. -- Created 1978 Ky. Acts ch. 110, sec. 20, effective January 1, 1979

45A.100 Small purchases by state governmental bodies.

(1) Procurements may be made in accordance with small purchase administrative regulations promulgated by the secretary of the Finance and Administration Cabinet, pursuant to KRS Chapter 13A, as follows:

(a) Up to ten thousand dollars (\$10,000) per project for construction and one thousand dollars (\$1,000) for purchases by any state governmental body, except for those state administrative bodies specified in paragraph (b) of this subsection; and

(b) Up to forty thousand dollars (\$40,000) per project for construction or purchases by the Finance and Administration Cabinet, state institutions of higher education, and the legislative branch of government.

(2) Procurement requirements shall not be artificially divided so as to constitute a small purchase under this section. Reverse auctions may be used for small purchase procurements. At least every two (2) years, the secretary shall review the prevailing costs of labor and materials and may make recommendations to the next regular session of the General Assembly for the revision of the then current maximum small purchase amount as justified by intervening changes in the cost of labor and materials.

(3) The secretary of the Finance and Administration Cabinet may grant to any state agency with a justifiable need a delegation of small purchasing authority which exceeds the agency's small purchase limit provided in subsection (1) of this section. Delegations of small purchasing authority shall be granted or revoked by the secretary of the Finance and Administration Cabinet, in accordance with administrative regulations promulgated by the cabinet pursuant to KRS Chapter 13A. These administrative regulations shall establish, at a minimum, the criteria for granting and revoking delegations of small purchasing authority, including the requesting agency's past compliance with purchasing regulations, the level of training of the agency's purchasing staff, and the extent to which the agency utilizes the Kentucky Automated Purchasing System. The administrative regulations may permit the secretary of the Finance and Administration Cabinet to delegate small purchase procurements up to the maximum amount specified in subsection (1)(b) of this section.

Effective: July 15, 2010

History: Amended 2010 Ky. Acts ch. 63, sec. 5, effective July 15, 2010. -- Amended 2002 Ky. Acts ch. 320, sec. 2, effective July 15, 2002. -- Amended 2000 Ky. Acts ch. 225, sec. 1, effective July 14, 2000. -- Amended 1996 Ky. Acts ch. 60, sec. 1, effective July 15, 1996. -- Amended 1994 Ky. Acts ch. 323, sec. 1, effective July 15, 1994. -- Amended 1990 Ky. Acts ch. 496, sec. 5, effective July 13, 1990. -- Amended 1986 Ky. Acts ch. 384, sec. 1, effective July 15, 1986. -- Amended 1984 Ky. Acts ch. 384, sec. 1, effective July 13, 1984. -- Amended 1982 Ky. Acts ch. 282, sec. 2, effective July 15, 1982. -- Amended 1980 Ky. Acts ch. 242, sec. 1, effective July 15, 1980; and ch. 250, sec. 19, effective April 9, 1980. -- Created 1978 Ky. Acts ch. 110, sec. 21, effective January 1, 1979.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO
ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

The following excerpts are from 45 FR 65984 (October 3, 1980):

The minority and female goals apply to Federal and federally assisted construction contractors and subcontractors which have covered contracts. The goals are expressed as a percentage of the total hours worked by such a covered or subcontractor's entire onsite construction workforce, which is working on any construction site within a relevant area. The goal applies to each construction craft and trade in the contractor's entire workforce in the relevant area including those employees working on private non-federally involved projects.

Until further notice, the following goals for minority utilization in each construction craft and trade shall be included in all Federal or federally assisted construction contracts and subcontracts in excess of \$10,000 to be performed in the respective geographic area. The goals are applicable to each nonexempt contractor's total onsite construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, federally assisted or non-federally related project, contract or subcontract.

Construction contractors which are participating in an approved Hometown Plan (see 41 CFR 60-4.5) are required to comply with the goals of the Hometown Plan with regard to construction work they perform in the area covered by the Hometown Plan. With regard to all their other covered construction work, such contractors are required to comply as follows:

Goals for female participation in each trade.....6.9%
Goals for minority participation in each trade.....Insert goals for each year
(see Attachment Number 5)

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or Federally assisted) performed in the covered area.

The following excerpts are from 45 FR 65977 (October 3, 1980):

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

As used in this Notice, and in the contract resulting from this solicitation, the covered area is (insert description of the geographical areas where the contract is to be performed giving the state, country, and city, if any).

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)**

EEO Specifications

Following is the standard language, which must be incorporated into all solicitations for offers and bids on all Federal and Federally assisted construction contracts or subcontracts in excess of \$10,000 to be performed in designated geographical areas:

1. As used in these specifications:
 - (a) Covered Area means the geographical area described in the solicitation from which this contract resulted.
 - (b) Director means Director, Office of Federal Contract Compliance Program, United States Department of Labor, or any person to whom the Director delegates authority;
 - (c) Employer identification number means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - (d) Minority includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take a good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7-a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensively as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligation.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7-b above.

- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, lay-off, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative actions obligations (7 a through p). The efforts of a contractor association, joint contractor-union, contractor-community, of other similar group of which the contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7 a through p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example: even though the Contractor has achieved its goal for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables for affirmative action standards to discriminate against any person because of race, color, religion, sex or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation, if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

EEO GOALS FOR ECONOMIC AREAS IN REGION 4
SOURCE: APPENDIX B-80 IN 45 FR 65984 (OCTOBER 3, 1980)

Kentucky:

053 Knoxville, TN

SMSA Counties:

3840 Knoxville, TN..... 6.6
 TN Anderson; TN Blount; TN Knox; TN Union.

Non-SMSA Counties 4.5

KY Bell; KY Harlan; KY Knox; KY Laurel; KY McCreary; KY Wayne; KY
 Whitley; TN Campbell; TN Claiborne; TN Cocke; TN Cumberland; TN Fentress;
 TN Grainger, TN Hamblen; TN Jefferson; TN Loudon; TN Morgan; TN Roane;
 TN Scott; TN Sevier.

054 Nashville, TN:

SMSA Counties:

1660 Clarksville - Hopkinsville, TN - KY 18.2
 KY Christian; TN Montgomery.

5360 Nashville - Davidson, TN 15.8

TN Cheatham, TN Davidson; TN Dickson; TN Robertson; TN Rutherford; TN
 Sumner; TN Williamson; TN Wilson.

Non-SMSA Counties 12.0

KY Allen; KY Barren; KY Butler; KY Clinton; KY Cumberland; KY Edmonson;
 KY Logan; KY Metcalfe; KY Monroe; KY Simpson; KY Todd; KY Trigg; KY
 Warren; TN Bedford; TN Cannon; TN Clay; TN Coffee; TN DeKalb; TN Franklin;
 TN Giles; TN Hickman; TN Houston; TN Humphreys; TN Jackson; TN Lawrence;
 TN Lewis; TN Macon; TN Marshall; TN Maury; TN Moore; TN Overton; TN
 Perry; TN Pickett; TN Putnam; TN Smith; TN Stewart; TN Trousdale; TN Van
 Buren; TN Warren; TN Wayne; TN White.

056 Paducah, KY:

Non-SMSA Counties 5.2

IL Hardin; IL Massac; IL Pope; KY Ballard; KY Caldwell; KY Calloway. KY
 Carlisle; KY Crittenden; KY Fulton; KY Graves; KY Hickman; KY Livingston;
 KY Lyon. KY McCracken; KY Marshall.

057 Louisville, KY:

SMSA Counties:

4520 Louisville, KY-IN 11.2
 IN Clark; IN Floyd; KY Bullitt; KY Jefferson; KY Oldham.

Non-SMSA Counties 9.6

IN Crawford; IN Harrison; IN Jefferson; IN Orange; IN Scott; IN Washington; KY
 Breckinridge; KY Grayson; KY Hardin; KY Hart; KY Henry; KY Larue; KY
 Marion; KY Meade; KY Nelson; KY Shelby; KY Spencer; KY Trimble; KY
 Washington.

058 Lexington, KY	
SMSA Counties	
4280 Lexington-Fayette, KY	10.8
KY Bourbon; KY Clark; KY Fayette; KY Jessamine; KY Scott; KY Woodford.	
Non-SMSA Counties	7.0
KY Adair KY Anderson; KY Bath; KY Boyle; KY Breathitt; KY Casey; KY Clay;	
KY Estill; KY Franklin; KY Garrard; KY Green; KY Harrison; KY Jackson; KY	
Knott; KY Lee; KY Leslie; KY Letcher; KY Lincoln; KY Madison; KY Magoffin;	
KY Menifee; KY Mercer; KY Montgomery; KY Morgan. KY Nicholas; KY	
Owsley; KY Perry; KY Powell; KY Pulaski; KY Rockcastle; KY Russell; KY	
Taylor; KY Wolfe.	
059 Huntington, WV:	
SMSA Counties:	
3400 Huntington - Ashland, WV-KY-OH	2.9
KY Boyd; KY Greenup; OH Lawrence; WV Cabell; WV Wayne.	
Non-SMSA Counties	2.5
KY Carter; KY Elliott; KY Floyd; KY Johnson; KY Lawrence; KY Martin; KY	
Pike; KY Rowan; OH Gallia; WV Lincoln; WV Logan; WV Mason; WV Mingo.	
067 Cincinnati, OH:	
SMSA Counties:	
1640 Cincinnati, OH-KY-IN	11.0
IN Dearborn; KY Boone; KY Campbell; KY Kenton; OH Clermont; OH Hamilton;	
OH Warren.	
3200 Hamilton - Middletown, OH	5.0
OH Butler.	
Non-SMSA Counties	9.2
IN Franklin; IN Ohio; IN Ripley; IN Switzerland; KY Bracken; KY Carroll; KY	
Fleming; KY Gallatin; KY Grant; KY Lewis; KY Mason; KY Owen; KY	
Pendleton; KY Robertson; OH Adams; OH Brown; OH Clinton; OH Highland.	
080 Evansville, IN:	
SMSA Counties	
2440 Evansville, IN-KY	4.8
IN Gibson; IN Posey; IN Vanderburgh; IN Warrick; KY Henderson.	
5990 Owensboro, KY	4.7
KY Daviess.	
Non-SMSA Counties	3.5
IL Edwards; IL Gallatin; IL Hamilton; IL Lawrence; IL Saline; IL Wabash; IL	
White; IN Dubois; IN Knox; IN Perry; IN Pike; IN Spencer; KY Hancock; KY	
Hopkins; KY McLean; KY Muhlenberg; KY Ohio; KY Union; KY Webster.	

**CHECK LIST OF EEO DOCUMENTATION FOR BIDDERS ON
GRANT/LOAN CONSTRUCTION (EXECUTIVE ORDER 11246 AS AMENDED)**

The low, responsive responsible bidder must forward the following items, in duplicate, to the owner no later than ten (10) days after bid opening. The owner shall have one (1) copy available for inspection by the Office of Federal Contracts Compliance (OFCC) within 14 days after the bid opening. More information can be found on the [OFCC](#) webpage.

1. Project Number. Project Location. Type of Construction.
2. Proof of registration with the Joint Reporting Commission. (See Attachment Number 7.)
3. Copy of Affirmative Action Plan of contractor. Indicate company official responsible for EEO.
4. List of current construction contracts, with dollar amount. List contracting Federal Agency, if applicable.
5. Statistics concerning company percent workforce, permanent and temporary, by sex, race, trade, handicapped, and age. 40 CFR Part 7.
6. List of employment sources for project in question. If union sources are utilized, indicate percentage of minority membership within the union crafts.
7. Anticipated employment needs for this project, by sex, race and trade, with estimate of minority participation in specific trades.
8. List of subcontractors (name, address and telephone) with dollar amount and duration of subcontract. Subcontractor contracts over \$10,000 must submit items 1- 7. The following information must be provided for all supplier contracts regardless of contract size: name of company, contact person, address, telephone number, dollar value of the contract, and a list of the materials to be supplied to the prime contractor.
9. List of any subcontract work yet to be committed with estimate of dollar amount and duration of contract.
10. Contract Price. Duration of prime contract.
11. DBE Documents - See special instructions regarding use of Minority, and Women Owned, and Small Businesses.

EMPLOYER INFORMATION REPORT EEO-1

Under the direction of the US Equal Employment Opportunity Commission, the Joint Reporting Committee is responsible for the full-length, multi-phase processing of employment statistics collected on the Employer Information Report EEO-1. This report, also termed Standard Form 100, details the sex and race/ethnic composition of an employer's work force by job category.

The Employer Information EEO-1 survey is conducted annually under the authority of Public Law 88-352, Title VII of the Civil Rights Act of 1964, as amended by the Equal Employment Opportunity Act of 1972. All employers with 15 or more employees are covered by Public Law 88-352 and are required to keep employment records as specified by Commission regulations. Based on the number of employees and federal contract activities, certain large employers are required to file an EEO-1 Report on an annual basis.

The EEO-1 Report must be filed by:

- (A) All private employers who are: (1) subject to Title VII of the Civil Rights Act of 1964 (as amended by the Equal Employment Opportunity Act of 1972) with 100 or more employees EXCLUDING State and local governments, primary and secondary school systems, institutions of higher education, Indian tribes and tax-exempt private memberships clubs other than labor organizations; OR (2) subject to Title VII who have fewer than 100 employees if the company is owned or affiliated with another company, or there is centralized ownership, control or management (such as central control of personnel policies and labor relations) so that the group legally constitutes a single enterprise and the entire enterprise employs a total of 100 or more employees.
- (B) All federal contractors (private employers), who: (1) are not exempt as provided for by 41 CFR 60-1.5, (2) have 50 or more employees, and (a) are prime contractors or first-tier subcontractors, and have a contract, subcontract, or purchase order amounting to \$50,000 or more; or (b) serve as depository of Government funds in any amount, or (c) is a financial institution which is an issuing and paying agent for U.S. Savings Bonds and Notes.

Only those establishments located in the District of Columbia and the 50 states are required to submit the EEO-1 Report. No Reports should be filed for establishments in Puerto Rico, the Virgin Islands or other American Protectorates.

When filing for the EEO-1 Report for the first time, go to the [U.S. Equal Employment Opportunity Commission](#) webpage and select "First Time Filers". Fill out the electronic questionnaire to enter your company into Joint Reporting Committee (JRC) system. Once you have completed the registration process, you will be contacted on how to proceed with the EEO-1 Report. If you have previously registered with the JRC, follow their instructions to update your information.

**LABOR STANDARDS PROVISIONS FOR
FEDERALLY ASSISTED CONSTRUCTION**

Labor standards provisions applicable to contracts covering federally financed and assisted construction (29 CFR 5.5, Contract Provisions and Related Matters) that apply to EPA State Revolving Fund loans are:

(a)(4)(iii) *Equal employment opportunity*. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

(a)(5) *Compliance with Copeland Act requirements*. The contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

(a)(6) *Subcontracts*. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5 (a)(1) through (10) and such other clauses as the U.S. Environmental Protection Agency may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(a)(7) *Contract termination: debarment*. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(b) *Contractor Work Hours and Safety Standards Act*. The Administrator, EPA, shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by §5.5(a) or §4.6 of part 4 of this title. As used in this paragraph, the terms *laborers* and *mechanics* include watchmen and guards.

(b)(1) *Overtime requirements*. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(b)(2) *Violation; liability for unpaid wages; liquidated damages*. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for unliquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) *Withholding for unpaid wages and liquidated damages*. The U.S. Environmental Protection Agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime

contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) *Subcontracts.* The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in section §5.1, the Administrator of EPA shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Administrator of EPA shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the U.S. Environmental Protection Agency and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job. (Approved by the Office of Management and Budget under OMB control numbers 1215-0140 and 1215-0017.)

CERTIFICATIONS

Debarred Firms

All prime Construction Contractors shall certify that Subcontractors have not and will not be awarded to any firm that is currently on the EPA Master List of Debarred, Suspended and Voluntarily Excluded Persons in accordance with the provisions of 40 CFR 32.500(c). Debarment action is taken against a firm for noncompliance with Federal Law.

All bidders shall complete the attached certification (Attachment Number 9) and submit to the owner with the bid proposal.

Anti-lobbying Certification

All prime Construction Contractors must certify (Attachment Number 10) that no appropriated funds were or will be expended for the purpose of lobbying the Executive or Legislative Branches of the Federal Government or Federal Agency concerning this contract (contract in excess of \$100,000). If the Contractor has made or agreed to make payment to influence any member of Congress in regard to award of this contract, a Disclosure Form must be completed and submitted to the owner with the bid proposal.

All prime Contractors must require all Subcontractors to submit the certification, which must also be submitted to the owner.

**CERTIFICATION REGARDING DEBARMENT,
SUSPENSION AND OTHER RESPONSIBILITY MATTERS**

The prospective participant certifies to the best of its knowledge and belief that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or Local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Typed Name & Title of Authorized Representative

Signature of Authorized Representative

Date

_____ I am unable to certify to the above statements. My explanation is attached.

**CERTIFICATION REGARDING LOBBYING
CERTIFICATION FOR CONTRACTS,
GRANTS, LOANS, AND COOPERATIVE AGREEMENTS**

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Typed Name & Title of Authorized Representative

Signature of Authorized Representative

Date

_____ I am unable to certify to the above statements. My explanation is attached.

EPA DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

EPA's Disadvantaged Business Enterprise Program rule applies to contract procurement actions funded in part by EPA assistance agreements awarded after May 27, 2008. The rule is found at Federal regulation Title 40, Part 33. Specific responsibilities are highlighted below.

Loan recipient responsibilities:

- Include in each contract with a primary contractor the following term and condition:

 “The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract.” (*Appendix A to Part 33—Term and Condition*)
- Employ the six Good Faith Efforts during prime contractor procurement (§33.301).
- Require the prime contractor to comply with the following prime contractor requirements of Title 40 Part 33:
 - To pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient (§33.302(a)).
 - To notify recipient in writing prior to any termination of a DBE subcontractor for convenience by the prime contractor (§33.302(b)).
 - To employ the six Good Faith Efforts described in §33.301 if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason (§33.302(c)).
 - To employ the six Good Faith Efforts described in §33.301 even if the prime contractor has achieved its fair share objectives under subpart D of Part 33 (§33.302(d)).
 - To provide EPA Form 6100-2 – *DBE Program Subcontractor Participation Form* to all DBE subcontractors (§33.302(e)). **NOTE: this requirement has been suspended.**
 - To submit EPA Forms 6100-3 – *DBE Program Subcontractor Performance Form* and 6100-4 *DBE Program Subcontractor Utilization Form* as part of the bid package or proposal (§33.302(f) and (g)). **NOTE: this requirement has been suspended.**
 - To employ the six Good Faith Efforts steps in paragraphs (a) through (f) of §33.301 while procuring any subcontracts (§33.302(i)).
- Conduct an Availability Analysis and negotiate fair share objectives with EPA (§33.401), or adopt the fair share objectives of the oversight state agency revolving loan fund for comparable infrastructure (§33.405(b)(3)).
- Maintain all records documenting its compliance with the requirements of Title 40 Part 33, including documentation of its, and its prime contractors', good faith efforts (§33.501(a)).

- Create and maintain a bidders list and require the prime contractor to create and maintain a bidders list (§33.501(b)). This list must include all firms that bid or quote on prime contracts, or bid or quote subcontracts, including both MBE/WBEs and non-MBE/WBEs. This list must be kept until the project period for the identified loan has ended. The following information must be obtained from all prime and subcontractors:
 - (a) Entity's name with point of contact,
 - (b) Entity's mailing address, telephone number, and email address,
 - (c) The procurement on which the entity bid or quoted, and when, and,
 - (d) Entity's status as an MBE/WBE or non-MBE/WBE.

Prime Contractor Responsibilities:

- Include in each contract with a subcontractor the following term and condition:

“The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract.” (*Appendix A to Part 33—Term and Condition*)
- Employ the six Good Faith Efforts during subcontractor procurement (§33.301).
- Pay subcontractors for satisfactory performance no more than 30 days from receipt of payment from the recipient (§33.302(a)).
- Notify recipient in writing prior to termination of a DBE subcontractor for convenience (§33.302(b)).
- Employ the six Good Faith Efforts described in §33.301 if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason. (§33.302(c)).
- Employ the six Good Faith Efforts described in §33.301 even if the fair share objectives have been achieved under subpart D of Part 33 (§33.302(d)).
- Provide EPA Forms 6100-2 – *DBE Program Subcontractor Participation Form* and 6100-3 – *DBE Program Subcontractor Performance Form* to each DBE subcontractor prior to opening of the subcontractor's bid or proposal (§33.302(e) and (f)). **NOTE: this requirement has been suspended.**
- Complete EPA Form 6100-4 – *DBE Program Subcontractor Utilization Form* (§33.302(g)). **NOTE: this requirement has been suspended.**
- Submit to recipient with the bid package or proposal the completed EPA Form 6100-4, plus an EPA Form 6100-3 for each DBE subcontractor used in the bid or proposal (§33.302(f) and (g)). **NOTE: this requirement has been suspended.**
- Maintain all records documenting its compliance with the requirements of Title 40 Part 33, including documentation of its, and its subcontractors', good faith efforts (§33.501(a)).
- Create and maintain a bidders list and require the subcontractor to create and maintain a bidders list (§33.501(b)). This list must include all firms that bid or quote on subcontracts, including both

MBE/WBEs and non-MBE/WBEs. This list must be kept until the project period for the identified loan has ended. The following information must be obtained from all subcontractors:

- (a) Entity's name with point of contact,
- (b) Entity's mailing address, telephone number, and email address,
- (c) The procurement on which the entity bid or quoted, and when, and,
- (d) Entity's status as an MBE/WBE or non-MBE/WBE.

Subcontractor Responsibilities:

- May submit EPA Form 6100-2 – *DBE Program Subcontractor Participation Form* directly to DOW Project Manager (§33.302(e)). **NOTE: this requirement has been suspended.**
- Must complete EPA Form 6100-3 – *DBE Program Subcontractor Performance Form* and submit it to the prime contractor soliciting services prior to the prime contractor opening bids or quotes. **NOTE: this requirement has been suspended.**

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION POLICY

PROJECT NAME: _____ **BID DATE:** _____

1. Name, address and telephone number of contact person on all DBE matters:

Prime Contractor's Name: _____
Contact Person: _____
Address: _____
Phone: _____
Cell Phone: _____
Email: _____
Total Contract Amount: _____

2. Total dollar amount/percent of contract of MBE participation: _____

3. Total dollar amount/percent of contract of WBE participation: _____

4. Are certifications* for each MBE/WBE/DBE subcontractor enclosed; if no, please explain: ☐ Yes ☐ No

5. Are MBE/WBE/DBE subcontracts or letters of intent signed by both parties enclosed; if no, please explain: ☐ Yes ☐ No

6. List of MBE Subcontractors:

Name: _____
Contact Person: _____
Address: _____
Phone: _____
Cell Phone: _____
Email: _____
Type of Contract: _____
Work to be Done: _____
Amount: _____

7. List of WBE Subcontractors:

Name: _____
Contact Person: _____
Address: _____
Phone: _____
Cell Phone: _____
Email: _____
Type of Contract: _____
Work to be Done: _____
Amount: _____

Attach Additional Sheets, If Necessary

*Self-certification: Self certification of MBE/WBE/DBE firms will NOT be accepted as a valid form of certification of MBE/WBE/DBE status.

8. Information and documentation concerning efforts taken to comply with EPA's "six good faith efforts"

- (i). Ensure DBE construction firms or material suppliers are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities; including placing DBEs on solicitation lists and soliciting them whenever they are potential sources. A good source for a list of DBEs is the Kentucky Transportation's [Certified DBE Directory](#) webpage.

☐ The prime contractor certifies that a solicitation list of qualified DBE vendors was developed for current and future solicitations. *Submit a copy of the list as documentation.*

- (ii). Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process; including, whenever possible, posting solicitation for bids or proposals for a sufficient amount of time as to receive a competitive bid or proposal pool.

☐ The prime contractor certifies that every opportunity was provided to a number of DBEs to encourage their participation in the competitive process and that an adequate amount of time was provided for response. Must do at least one of the below.

- a. List each DBE construction firm or material supplier to which a solicitation was attempted. *Submit copies of letters, emails, faxes, telecommunication logs, certified mail receipts, returned envelopes, certified mail return receipts, etc. as documentation.*

Company name and phone number: _____

Area of work expertise: _____

Date of any follow-ups and person spoke to: _____

- b. Advertisements, if applicable: List each publication in which an announcement or notification was placed. *Submit original advertisement or a copy of the advertisement with an affidavit of publication for each announcement as documentation.*

Name of publication: _____

Date(s) of advertisement: _____

Specific subcontract areas announced: _____

- c. Other, if applicable: List each notification method in which an announcement or outreach was used; list serve, public meeting, etc. *Submit applicable information to document effort.*

Method of notification: _____

Date(s) of notification: _____

- (iii). Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs; including dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

☐ The prime contractor certifies that the project was broken into its basic elements (i.e., dirt hauling, landscaping, painting, pipe installation, material supplies, etc.) and that a determination was made whether it's economically feasible to bid the elements separately and that the analysis of this effort was documented with a short memo to the project file.

- (iv). Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises.
- ☐ The prime contractor certifies that they established delivery schedules which would allow DBEs to participate in the project and the effort was documented with a short memo to the project file.
- (v). Use the services and assistance of the Small Business Administration (SBA). The easiest way to utilize their services is to visit the [SBA](#) webpage and use the electronic tools available there or you may send the nearest SBA office a certified letter that generally describes the solicitation, the dates it will be open, the types of vendors you are seeking and applicable Standard Industrial Classification (SIC) or North American Industry Classification System (NAIC) codes if known. Or, you may use the services and assistance of the Kentucky Procurement Technical Assistance Center (PTAC) **and** the Kentucky Department of Transportation (KDOT). The easiest way to utilize the services of Kentucky PTAC and KDOT is to send an email to kryptacinfo@kstc.com and Melvin.Bynes2@ky.gov and generally describe the solicitation, the dates it will be open, the types of vendors you are seeking and applicable SIC or NAIC codes if known.
- ☐ The prime contractor certifies that the assistance of the SBA or PTAC **and** KDOT was utilized. *Submit pages printed off the SBA websites which evidence efforts to register a solicitation on the site or submit copies of the letter sent and certified mail receipt as documentation; or submit copies of emails sent to PTAC and DOT as documentation.*
- (vi). If a Prime contractor awards any subcontracts, require the subcontractor to take the steps in numbers (i) through (v) above.
- ☐ The prime contractor certifies that subcontractors used for this project will be required to follow the steps of the "six good faith efforts" as listed above.

9. Signature and date:

To the best of my knowledge and belief, all "six good faith efforts" have been met and the information contained in this document is true and correct; the document has been duly authorized by the legal representative.

Signature

Print name and title

Date

BIDDER'S LIST FORM

OWNER: _____

LOAN NO: _____

PROJECT TITLE: _____

BID DATE: _____

Instructions:

1. Per 40 CFR §33.501(b), this list must include all firms that were solicited for participation, bid on, or quoted for a prime contract or subcontract under EPA assisted projects, includes both DBE's and non DBE's.
2. SRF loan participants must keep the Bidder's List until the project period for the identified loan has ended and no funds are remaining.
3. This list must be submitted to DOW in the ATA Package. Contract Award Approval cannot be given until this form has been received by DOW.
4. The following information must be obtained from all prime and subcontractors. Please complete the form below:

ENTITY'S NAME	MAILING ADDRESS	CONTACT PERSON	PHONE#	E-MAIL ADDRESS	M/WBE?

BONDS AND INSURANCE

The minimum requirements shall be as follows:

Bonding requirements for contracts of \$100,000 or less are contained in 40 CFR 31.36(h).

Bond requirements for contracts in excess of \$100,000 are:

- Bid guarantee equivalent to five percent of the bid price. The bid guarantee shall consist of a firm commitment such as a certified check or bid bond submitted with the bid;
- Performance bond equal to 100 percent of the contract price, and
- Payment bond equal to 100 percent of the contract price. Bonds must be obtained from companies holding Certificates of Authority as acceptable sureties, issued by the U.S. Treasury.

Insurance requirements are contained in the General Conditions of the contract. In addition to the other required insurance, the owner or the contractor, as appropriate, must acquire any flood insurance made available by the Federal Emergency Management Agency as required by 44 CFR Parts 59-79, if construction will take place in a flood hazard area identified by the Federal Emergency Management Agency. The owner's requirements on Flood Insurance are contained in the Special Conditions Section of the Contracts Documents.

STORM WATER GENERAL PERMIT

All construction projects with surface disturbance of more than 1 acre during the period of construction must have a KPDES Storm Water General Permit. The permit can be found at this [webpage](#).

If you have any questions regarding the completion of this form call the Surface Water Permits Branch, at (502) 564-3410.

DAVIS-BACON WAGE RATE REQUIREMENTS

CWSRF: The recipient agrees to include in all agreements to provide assistance for the construction of treatment works carried out in whole or in part with such assistance made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.), or with such assistance made available under section 205(m) of that Act (33 U.S.C. 1285(m)), or both, a term and condition requiring compliance with the requirements of section 513 of that Act (33 U.S.C. 1372) in all procurement contracts and sub-grants, and require that loan recipients, procurement contractors and sub-grantees include such a term and condition in subcontracts and other lower tiered transactions. All contracts and subcontracts for the construction of treatment works carried out in whole or in part with assistance made available as stated herein shall insert in full in any contract in excess of \$2,000 the contract clauses as set forth below titled “Wage Rate Requirements Under The Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6)”. This term and condition applies to all agreements to provide assistance under the authorities referenced herein, whether in the form of a loan, bond purchase, grant, or any other vehicle to provide financing for a project, where such agreements are executed on or after October 30, 2009.

DWSRF: The recipient agrees to include in all agreements to provide assistance for any construction project carried out in whole or in part with such assistance made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12), a term and condition requiring compliance with the requirements of section 1450(e) of the Safe Drinking Water Act (42 U.S.C. 300j-9(e)) in all procurement contracts and sub-grants, and require that loan recipients, procurement contractors and sub-grantees include such a term and condition in subcontracts and other lower tiered transactions. All contracts and subcontracts for any construction project carried out in whole or in part with assistance made available as stated herein shall insert in full in any contract in excess of \$2,000 the contract clauses as set forth below entitled “Wage Rate Requirements Under The Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6)”. This term and condition applies to all agreements to provide assistance under the authorities referenced herein, whether in the form of a loan, bond purchase, grant, or any other vehicle to provide financing for a project, where such agreements are executed on or after October 30, 2009.

Wage Rate Requirements under the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6)

Preamble

With respect to the Clean Water and Safe Drinking Water State Revolving Funds, EPA provides capitalization grants to each State which in turn provides subgrants or loans to eligible entities within the State. Typically, the subrecipients are municipal or other local governmental entities that manage the funds. For these types of recipients, the provisions set forth under Roman Numeral I, below, shall apply. Although EPA and the State remain responsible for ensuring subrecipients’ compliance with the wage rate requirements set forth herein, those subrecipients shall have the primary responsibility to maintain payroll records as described in Section 3(ii)(A), below and for compliance as described in Section I-5.

Occasionally, the subrecipient may be a private for profit or not for profit entity. For these types of recipients, the provisions set forth in Roman Numeral II, below, shall apply. Although EPA and the State remain responsible for ensuring subrecipients’ compliance with the wage rate requirements set forth herein, those subrecipients shall have the primary responsibility to maintain payroll records as described in Section II-3(ii)(A), below and for compliance as described in Section II-5.

I. Requirements under the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6) for Subrecipients that are Governmental Entities:

The following terms and conditions specify how recipients will assist EPA in meeting its Davis-Bacon (DB) responsibilities when DB applies to EPA awards of financial assistance under the FY 2013 Continuing Resolution with respect to State recipients and subrecipients that are governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient. The recipient or subrecipient may also obtain additional guidance from [Department of Labor's](#) webpage.

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Continuing Resolution, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor the [General Services Administration](#) website weekly to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor the [General Services Administration](#) website on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(b) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from the [General Services Administration](#) website into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage

determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2013 Continuing Resolution, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's [General Services Administration](#) website.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the [Wage and Hour Division's](#) webpage or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under §5.5(a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5(a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance” required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman’s hourly rate) specified in the contractor’s or subcontractor’s registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice’s level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for

the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification.

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour [District Office](#).

II. Requirements under the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6) for Subrecipients that are not Governmental Agencies

The following terms and conditions specify how recipients will assist EPA in meeting its DB responsibilities when DB applies to EPA awards of financial assistance under the FY2013 Continuing Resolution with respect to subrecipients that are not governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient for guidance. The recipient or subrecipient may also obtain additional guidance from [DOL's](#) webpage.

Under these terms and conditions, the subrecipient must submit its proposed DB wage determinations to the State recipient for approval prior to including the wage determination in any solicitation, contract task orders, work assignments, or similar instruments to existing contractors.

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Continuing Resolution, Davis-Bacon prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients must obtain proposed wage determinations for specific localities from the U.S. Department of Labor's [General Services Administration](#) website. After the Subrecipient obtains its proposed wage determination, it must submit the wage determination to (insert contact information for State recipient DB point of contact for wage determination) for approval prior to inserting the wage determination into a solicitation, contract or issuing task orders, work assignments or similar instruments to existing contractors (ordering instruments unless subsequently directed otherwise by the State recipient Award Official).

(b) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor the U.S. Department of Labor's [General Services Administration](#) website on a weekly basis to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor the U.S. Department of Labor's [General Services Administration](#) website on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(c) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from the U.S. Department of Labor's [General Services Administration](#) website into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract

or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2013 Continuing Resolution, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's [General Services Administration](#) website.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient(s) to the State award official. The State award official will transmit the report, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request, and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s) shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the

site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the [Wage and Hour Division's](#) webpage or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5(a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5(a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and

Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act.

These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient shall upon the request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (a)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification.

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour [District Office](#) or its successor site.

AMERICAN IRON AND STEEL REQUIREMENT

The Contractor acknowledges to and for the benefit of the _____ (“Purchaser”) and the State of Kentucky (the “State”) that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or Drinking Water State Revolving Fund that have statutory requirements commonly known as “American Iron and Steel;” that requires all of the iron and steel products used in the project to be produced in the United States (“American Iron and Steel Requirement”) including iron and steel products provided by the Contractor pursuant to this Agreement.

The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State.

Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser).

While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

Sample Certification

The following information is provided as a sample letter of step certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name
Company Address
City, State Zip

Subject: American Iron and Steel Step Certification for Project (XXXXXXXXXX)

I, (company representative), certify that the (melting, bending, coating, galvanizing, cutting, etc.) process for (manufacturing or fabricating) the following products and/or materials shipped or provided for the subject project is in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

1. XXXX
2. XXXX
3. XXXX

Such process took place at the following location:

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

EMPLOYMENT REQUIREMENTS AND WAGE RATES

R-1. GENERAL. The successful bidder will be required to conform to all provisions of the federal Davis-Bacon and Related Acts (The Act) which requires that all laborers and mechanics employed by contractors and subcontractors performing on federal contracts (and contractors and subcontractors performing on federally assisted contracts under the related ACTS) in excess of \$2,000 pay their laborers and mechanics not less than the prevailing wage rates and fringe benefits, as determined by the Department of Labor, for corresponding classes of laborers and mechanics employed on similar projects in the area.

This Contract shall be based upon payment by the Contractor and his Subcontractors of wage rates not less than the prevailing hourly wage rate for each craft or type of workman engaged on the Work as determined by the Department of Labor.

The Contractor and each Subcontractor shall keep accurate records indicating the hours worked each day by each employee in each classification of work and the amount paid each employee for his work in each classification. Such records shall be open to the inspection and transcript of the Commissioner of Labor or his duly authorized representatives at any reasonable time. These payroll records shall not be destroyed or removed from the state for one year following completion of the improvement.

The Contractor and each Subcontractor shall post and keep posted in a conspicuous place or places at the construction site a copy or copies of prevailing rates of wages and working hours as prescribed in these Contract Documents.

If, during the life of this Contract, the prevailing hourly rate of wages is changed by the Department of Labor, such change shall not be the basis of any claim by the Contractor against the Owner, nor will deductions be made by the Owner against sums due the Contractor by reason of any such change.

The prevailing wage law does not prohibit payment of more than the prevailing rate of wages.

R-2. PREVAILING WAGES.

The Contractor shall note that where a contract is not awarded within 90 days from the date of establishment of the prevailing wages, there shall be a redetermination of the prevailing rate of wage before the contract is awarded.

Davis Bacon wages can be obtained from the Wage Determinations Online website. Use this link to find the Davis Bacon wages:

https://sam.gov/search/?index=dbra&sort=-modifiedDate&page=1&pageSize=25&sfm%5Bstatus%5D%5Bis_active%5D=true&sfm%5BsimpleSearch%5D%5BkeywordRadio%5D=ALL

Use the pull-down menus to enter:

- State = "Kentucky"
- County = "Campbell" & "Kenton"
- DBA: Construction Type = "Heavy"

to find the Davis Bacon Wages.

"General Decision Number: KY20250065 01/03/2025

Superseded General Decision Number: KY20240065

State: Kentucky

Construction Type: Heavy

County: Campbell County in Kentucky.

HEAVY CONSTRUCTION PROJECTS (including sewer/water construction).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

<p>If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
<p>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the

Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/03/2025

ASBE0008-007 03/01/2024

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR.....	\$ 34.23	21.94

ELEC0369-008 05/29/2024

	Rates	Fringes
ELECTRICIAN.....	\$ 37.88	21.38

ENGI0018-016 05/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Backhoe/Excavator/Trackhoe).....	\$ 44.14	16.41

ENGI0181-016 07/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR GROUP 1.....	\$ 40.05	19.10

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Crane; Forklift

Operators on cranes with boom 150 feet and over, including jib, shall receive \$0.75 above Group 1. All cranes with piling leads will receive \$0.50 above Group 1 rate regardless of boom length. Combination rate shall mean \$0.50 per hour above the basic hourly rate of pay.

Employees assigned to work below ground level are to be paid 10% above basic wage rate. This does not apply to open cut work.

ENGI0181-019 06/10/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 40.05	19.10
GROUP 2.....	\$ 37.19	19.10
GROUP 3.....	\$ 37.64	19.10
GROUP 4.....	\$ 36.87	19.10

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Drill; Pumpcrete; Roller (Bituminous)

GROUP 2 - Bobcat/Skid Steer/Skid Loader; Concrete Pump;
Roller (Rock)

GROUP 3 - Articulating Truck Operator

GROUP 4 - Pump; Roller (Earth)

Operators on cranes with booms 150 feet and over (including jib) shall receive \$1.00 above Group 1 rate; 250 feet and over including jib shall receive \$1.50 above Class 1 rate. Combination Rate: All crane operators operating cranes, where the length of the boom in combination with the length of the piling leads equal or exceeds 150 feet, shall receive \$1.00 above the Group 1 rate.

Employees assigned to work below ground level are to be paid 10% above basic wage rate. This does not apply to open cut work.

IRON0044-005 06/01/2024

	Rates	Fringes
IRONWORKER (STRUCTURAL AND REINFORCING).....	\$ 35.37	23.00

IRON0070-011 06/01/2024

	Rates	Fringes
IRONWORKER, ORNAMENTAL.....	\$ 34.59	25.00

LABO0189-016 07/01/2024

	Rates	Fringes
LABORER		
Concrete Worker & Grade Checker.....	\$ 23.96	18.58
Tamper(Hand Held/Walk Behind).....	\$ 24.21	18.58

LABO0265-005 05/01/2024

	Rates	Fringes
LABORER		
Concrete Saw (Hand Held/Walk Behind) & Pipelayer.....	\$ 35.69	14.45
Flagger & Landscape.....	\$ 35.52	14.45

SUKY2011-021 06/25/2014

	Rates	Fringes
CARPENTER (Form Work Only).....	\$ 24.80	8.76
LABORER: Common or General.....	\$ 22.24	9.63
LABORER: Concrete Finishing.....	\$ 25.75	8.60
OPERATOR: Bulldozer.....	\$ 28.04	13.00
OPERATOR: Loader.....	\$ 26.68	13.00
OPERATOR: Mechanic.....	\$ 28.60	11.83
OPERATOR: Oiler.....	\$ 24.34	13.00
OPERATOR: Trencher.....	\$ 26.27	12.37
TRUCK DRIVER: Dump Truck.....	\$ 17.82	3.26

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after

award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than "SU", "UAVG", "SA", or "SC" denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The "SU" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates

reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as

conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

PROJECT REQUIREMENTS

1. GENERAL DESCRIPTION OF WORK. The Work to be performed under these Contract Documents is generally described as follows: Furnishing all plant, materials, equipment, supplies, labor and transportation, including fuel, power, water, (except any materials, equipment, utility, or service, if any, specified herein to be furnished by the District), and performing all work required in the scope of work in the Contract, in strict accordance with the specifications, schedules, and drawings, all of which are made a part hereof and including such detail drawings as may be furnished by the District from time to time during the prosecution of the work in explanation of said drawings.

2. COORDINATION. Contractor shall plan, schedule, and coordinate its operations in a manner which will facilitate the simultaneous progress of the work included under other contracts outside the scope of these Contract Documents if applicable.

3. MATERIALS TO BE FURNISHED BY OWNER. If the Owner is supplying some of the materials for this project (eg. air release valves, meter materials) it shall be indicated on the bid item unit price sheet and Measurement and Payment Section 1025. Items will be available at the Owner's storage yard unless other provisions have been made.

4. RESPONSIBILITY FOR MATERIALS AND EQUIPMENT.

4.01. Items Furnished by Owner. Contractor's responsibility for materials and equipment furnished by Owner shall begin at the point of delivery on acceptance by Contractor. Contractor shall carefully examine each shipment prior to acceptance and shall reject all defective items. Owner reserves the right, however, to accept items rejected by Contractor and to authorize their installation in the Work.

Defective materials and equipment discovered after installation and prior to final acceptance of the Work, where the defect is of a nature not detectable by visual examination and other appropriate field inspection methods, shall be replaced by Owner, together with such additional materials and supplies as may be necessary for their replacement. Contractor shall furnish all necessary tools, equipment, and appliances, and perform all necessary labor, for the removal and replacement of such defective items in a manner acceptable to Owner; adjustment to the Contract Price for the costs of the removal and replacement shall be made in accordance with Article 11 of the General Conditions.

All materials and equipment furnished by Owner which disappear or are damaged after their acceptance by Contractor shall be replaced by and at the expense of Contractor. Replacements shall conform to the original procurement specifications.

Contractor shall be responsible for all unloading, reloading, transporting to the site, storage if necessary, re-handling, and installation.

All items shall be unloaded promptly after arrival. All charges for demurrage due to negligence or delay by Contractor shall be paid by Contractor. Equipment and materials shall be handled by methods which will prevent damage.

Equipment and materials shall be protected from exposure to the elements. All equipment shall be stored in accordance with the General Equipment Stipulations.

Contractor shall accept the risk of any delay in delivery of equipment or materials furnished by Owner, and if the Work is delayed, Contractor shall have no claim for damages or contract adjustment other than an extension of time and the waiving of liquidated damages occasioned by the delay.

All equipment shall be arranged and installed as indicated on the Drawings, and in conformity with installation drawings and instructions furnished to Owner by the manufacturer of the equipment.

4.02. Items Furnished by Contractor. Contractor shall be fully responsible for all materials and equipment which it has furnished.

5. OFFSITE STORAGE. Offsite storage arrangement shall be approved by Owner for all materials and equipment not incorporated into the Work but included in Applications for Payment. Such offsite storage arrangement shall be presented in writing and shall afford adequate and satisfactory security and protection. Offsite storage facilities shall be accessible to Owner.

6. SUBSTITUTES AND "OR-EQUAL" ITEMS. Provisions for evaluation of substitutes and "or-equal" items of materials and equipment are covered in Paragraph 6.05 of the General Conditions. Requests for review of equivalency will not be accepted by Owner from anyone except Contractor, and such requests will not be considered until after the Contract has been awarded.

7. PREPARATION FOR SHIPMENT. All materials shall be suitably packaged to facilitate handling and protect against damage during transit and storage. Painted surfaces shall be protected against impact, abrasion, discoloration, and other damage. All painted surfaces which are damaged prior to acceptance of equipment shall be repainted to the satisfaction of Owner.

Each item, package, or bundle of material shall be tagged or marked as identified in the delivery schedule or on the Shop Drawings. Complete packing lists and bills of material shall be included with each shipment.

8. SALVAGE OF MATERIALS AND EQUIPMENT. Existing materials and equipment removed, and not reused as a part of the Work, shall become Contractor's property, except the following items which shall remain Owner's property: Fire Hydrants, temporary plugs, and any unused materials supplied by the Owner.

Contractor shall carefully remove, in a manner to prevent damage, all materials and equipment specified or indicated to be salvaged and reused or to remain the property of Owner. Contractor shall store and protect salvaged items specified or indicated to be reused in the Work.

Salvaged items not to be reused in the Work, but to remain Owner's property, shall be delivered by Contractor in good condition to Owner's storage yard.

Any items damaged in removal, storage, or handling through carelessness or improper procedures shall be replaced by Contractor in kind or with new items.

Contractor may furnish and install new items instead of those specified or indicated to be salvaged and reused, in which case such removed items will become Contractor's property.

Existing materials and equipment removed by Contractor shall not be reused in the Work except where so specified or indicated.

9. EASEMENTS AND RIGHTS-OF-WAY. The easements and rights-of-way for the pipelines will be provided by Owner. Contractor shall confine its construction operations within the limits indicated on the Drawings. Contractor shall use due care in placing construction tools, equipment, excavated materials, and pipeline materials and supplies in order to avoid damage to property and interference with traffic.

9.01. On Private Property. Easements across private property are indicated on the Drawings. Contractor shall set stakes to mark the boundaries of construction easements across private property. The stakes shall be protected and maintained until completion of construction and cleanup.

Contractor shall not enter any private property outside the designated construction easement boundaries without written permission from the owner of the property.

Whenever the easement is occupied by crops which will be damaged by construction operations, Contractor shall notify the owner sufficiently in advance so that the crops may be removed before excavation or trenching is started. Contractor shall be responsible for all damage to crops outside the easement and shall make satisfactory settlement for the damage directly with the owner.

Where the line crosses fields which are leveled for irrigation or terraced, Contractor shall relevel irrigated fields and replace all terraces to their original or better condition, and to the satisfaction of the owner.

9.02. Work Within Highway and Railroad Rights-of-Way. Permits shall be obtained by Owner. All Work performed and all operations of Contractor, its employees, or Subcontractors within the limits of railroad and highway rights-of-way shall be in conformity with the requirements and be under the control (through Owner) of the railroad or highway authority owning, or having jurisdiction over and control of, the right-of-way in each case.

10. OPERATION OF EXISTING FACILITIES. The existing water transmission and distribution system must be kept in continuous operation throughout the construction period. No interruption will be permitted which adversely affects the degree of service provided. Provided permission is obtained from Owner in advance, portions of the existing facilities may be taken out of service for short periods corresponding with

periods of minimum service demands. This may facilitate work at night or weekends which is considered incidental to the project.

Contractor shall provide temporary facilities and make temporary modifications as necessary to keep the existing facilities in operation during the construction period.

11. NOTICES TO OWNERS AND AUTHORITIES. Contractor shall, as provided in the General Conditions, notify owners of adjacent property and utilities when prosecution of the Work may affect them.

When it is necessary to temporarily deny access to property, or when any utility service connection must be interrupted, Contractor shall give notices sufficiently in advance to enable the affected persons to provide for their needs. Notices shall conform to any applicable local ordinance and, whether delivered orally or in writing, shall include appropriate information concerning the interruption and instructions on how to limit inconvenience caused thereby.

Utilities and other concerned agencies shall be notified at least 24 hours prior to cutting or closing streets or other traffic areas or excavating near underground utilities or pole lines.

12. LINES AND GRADES. All Work shall be done to the lines, grades, and elevations indicated on the Drawings.

Basic horizontal and vertical control points will be established or designated by Owner to be used as datums for the Work. All additional survey, layout, and measurement work shall be performed by Contractor as a part of the Work.

Contractor shall provide an experienced instrument person, competent assistants, and such instruments, tools, stakes, and other materials required to complete the survey, layout, and measurement work. In addition, Contractor shall furnish, without charge, competent persons and such tools, stakes, and other materials as Owner may require in establishing or designating control points, or in checking survey, layout, and measurement work performed by Contractor.

Contractor shall keep Owner informed, a reasonable time in advance, of the times and places at which it wishes to do Work, so that horizontal and vertical control points may be established and any checking deemed necessary by Owner may be done with minimum inconvenience to Owner and minimum delay to Contractor.

Contractor shall remove and reconstruct work which is improperly located.

13. CONNECTIONS TO EXISTING FACILITIES. Unless otherwise specified or indicated, Contractor shall make all necessary connections to existing facilities, including structures, drain lines, and utilities such as water, sewer, gas, telephone, and electric. In each case, Contractor shall receive permission from Owner or the owning utility prior to undertaking connections. Contractor shall protect facilities against deleterious substances and damage.

Connections to existing facilities which are in service shall be thoroughly planned in advance, and all required equipment, materials, and labor shall be on hand at the time of undertaking the connections. Work shall proceed continuously (around the clock) if necessary to complete connections in the minimum time. Operation of valves or other appurtenances on existing utilities, when required, shall be by or under the direct supervision of the owning utility.

14. UNFAVORABLE CONSTRUCTION CONDITIONS. During unfavorable weather, wet ground, or other unsuitable construction conditions, Contractor shall confine its operations to work which will not be affected adversely by such conditions. No portion of the Work shall be constructed under conditions which would affect adversely the quality or efficiency thereof, unless special means or precautions are taken by Contractor to perform the Work in a proper and satisfactory manner.

15. CUTTING AND PATCHING. As provided in General Conditions, Contractor shall perform all cutting and patching required for the Work and as may be necessary in connection with uncovering Work for inspection or for the correction of defective Work.

Contractor shall perform all cutting and patching required for and in connection with the Work, including but not limited to the following:

- Removal of improperly timed Work.
- Removal of samples of installed materials for testing.
- Alteration of existing facilities.
- Installation of new Work in existing facilities.

Contractor shall provide all shoring, bracing, supports, and protective devices necessary to safeguard all Work and existing facilities during cutting and patching operations. Contractor shall not undertake any cutting or demolition which may affect the structural stability of the Work or existing facilities without Owner's concurrence.

Materials shall be cut and removed to the extent indicated on the Drawings or as required to complete the Work. Materials shall be removed in a careful manner, with no damage to adjacent facilities or materials. Materials which are not salvable shall be removed from the site by Contractor.

All Work and existing facilities affected by cutting operations shall be restored with new materials, or with salvaged materials acceptable to Owner, to obtain a finished installation with the strength, appearance, and functional capacity required. If necessary, entire surfaces shall be patched and refinished.

16. ASBESTOS REMOVAL. If, during the progress of the Work, suspected asbestos-containing products are identified, Contractor shall stop work in the affected area and engage an asbestos removal Subcontractor to verify the materials and, if necessary, encapsulate, enclose, or remove and dispose of all asbestos in accordance with current regulations of the Environmental Protection Agency and the U. S. Department of Labor - Occupational Safety and Health Administration, the state asbestos regulating agency, and any local government agency. Payment for such work will be made by Change Order.

16.01. Subcontractor's Qualifications. The Subcontractor for asbestos removal shall be regularly engaged in this type of activity and shall be familiar with the regulations which govern this work. The Subcontractor shall demonstrate to the satisfaction of Owner that it has successfully completed at least three asbestos removal projects, that it has the necessary staff and equipment to perform the work, and that it has an approved site for disposal of the asbestos. The Subcontractor shall carry insurance as specified in the Supplementary Conditions.

16.02. Removal Methods. The asbestos removal Subcontractor shall submit a work plan of its proposed removal procedure to Owner before beginning work and shall certify that the methods are in full compliance with the governing regulations. The work plan shall cover all aspects of the removal, including health and safety of employees and building occupants, hygiene facilities, employee certification, clearance criteria, transportation and disposal, enclosure techniques, and other techniques appropriate for the proposed work.

17. CLEANING UP. Contractor shall keep the premises free at all times from accumulations of waste materials and rubbish. Contractor shall provide adequate trash receptacles about the site and shall promptly empty the containers when filled.

Construction materials, such as concrete forms and scaffolding, shall be neatly stacked by Contractor when not in use. Contractor shall promptly remove splattered concrete, asphalt, oil, paint, corrosive liquids, and cleaning solutions from surfaces to prevent marring or other damage.

Volatile wastes shall be properly stored in covered metal containers and removed daily.

Wastes shall not be buried or burned on the site or disposed of into storm drains, sanitary sewers, streams, or waterways. All wastes shall be removed from the site and disposed of in a manner complying with local ordinances and anti-pollution laws.

Adequate cleanup will be a condition for processing of progress payment applications.

18. APPLICABLE CODES. References in the Contract Documents to local codes mean the following:

- Kentucky Building Code
- Kentucky Plumbing Code
- National Electric Code
- BOCA Mechanical Code

Other standard codes which apply to the Work are designated in the Specifications.

19. PRECONSTRUCTION CONFERENCE. Prior to the commencement of Work at the site, a pre-construction conference will be held at a mutually agreed time and place. The conference shall be attended by:

- Contractor and its superintendent.
- Principal Subcontractors.
- Representatives of principal Suppliers and manufacturers as appropriate.
- Representatives of Owner.

Government representatives as appropriate.
Others as requested by Contractor or Owner.

Unless previously submitted to Owner, Contractor shall bring to the conference a preliminary schedule for each of the following:

- Progress.
- Procurement.
- Values for progress payment purposes.
- Shop Drawings and other submittals.

The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established. The agenda will include:

- Contractor's preliminary schedules.
- Transmittal, review, and distribution of Contractor's submittals.
- Processing Applications for Payment.
- Maintaining record documents.
- Critical Work sequencing.
- Field decisions and Change Orders.
- Use of premises, office and storage areas, security, housekeeping, and Owner's needs.
- Contractor's assignments for safety and first aid.

Owner will preside at the conference and will arrange for keeping the minutes and distributing the minutes to all persons in attendance.

20. PROGRESS MEETINGS. Contractor shall schedule and hold regular progress meetings at least monthly and at other times as requested by Owner or required by progress of the Work. Contractor, Owner, and all Subcontractors active on the site shall be represented at each meeting. Contractor may at its discretion request attendance by representatives of its Suppliers, manufacturers, and other Subcontractors.

Contractor shall preside at the meetings. Meeting minutes will be prepared and distributed by Contractor. The purpose of the meetings will be to review the progress of the Work, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop.

End of Section

Section 01025

MEASUREMENT AND PAYMENT

1. SCOPE. This section covers methods of measurement and payment for items of Work under this Contract.
2. GENERAL. The total Contract Price shall cover all Work required by the Contract Documents. All costs in connection with the proper and successful completion of the Work, including furnishing all materials, equipment, supplies, and appurtenances; providing all construction plant, equipment, and tools; and performing all necessary labor and supervision to fully complete the Work, shall be included in the unit and lump sum prices bid. All Work not specifically set forth as a pay item in the Bid Form shall be considered a subsidiary obligation of Contractor and all costs in connection therewith shall be included in the prices bid. The Contractor shall be responsible for supplying all project materials, except for items supplied by the Owner as indicated in the Bid Item Descriptions below and on the bid form.
3. ESTIMATED QUANTITIES. All estimated quantities stipulated in the Bid Form or other Contract Documents are approximate and are to be used only (a) as a basis for estimating the probable cost of the Work and (b) for the purpose of comparing the bids submitted for the Work. The actual amounts of work done and materials furnished under unit price items may differ from the estimated quantities. The basis of payment for work and materials will be the actual amount of work done and materials furnished. Contractor agrees that it will make no claim for damages, anticipated profits, or otherwise on account of any difference between the amounts of work actually performed and materials actually furnished and the estimated amounts therefor.
4. EXCAVATION AND TRENCHING. Except where otherwise specified, the unit or lump sum price bid for each item of Work, which involves excavation, or trenching shall include all costs for such Work. No direct payment shall be made for excavation or trenching. All excavation and trenching shall be unclassified as to materials, which may be encountered; in addition, trenches shall be unclassified as to depth.
5. BID PRICES TO INCLUDE INCIDENTAL WORK. The bid prices will cover and include the cost and expense of all contingents, accessories and incidental work and material required to complete the improvement. This includes replacement of services, pavement, fences and any other objects which are affected in the process of construction on this work. It shall also include where necessary, watchmen, flagmen, barricades, red lights, all backfill material such as gravel, flowable fill and any temporary restoration, construction joints, finishing and curing concrete, dust control, maintenance of traffic, maintenance of existing sewage flow, provision for access to property, and many other incidents which occur on a normal construction job.

DESCRIPTION OF BID ITEMS

NOTE: Descriptions of each material can be found in Section 01600 Technical Provisions

6. PIPELINES. Pipelines which are to be paid for on a unit price basis shall be measured for payment on a horizontal plane after installation of the pipe. Where lines are laid to conform

to stationed profiles, payment shall be made on linear quantities based on the pipeline stationing as determined by surveys made after installation.

The measurement of the length of each line or run of pipe of each size will begin and end at:

- a. The end of the pipe where connected to an existing pipe, fitting, or valve; or at the end of a dead-end run.
- b. The center lines intersection of the run and branch on tees, crosses, or laterals where a branch line connecting therewith is constructed under this Contract. Where a branch fitting is installed under this Contract, and the branch or connecting line is to be constructed by others at some future date or under another contract, the pay measurement will include the entire laying length of the branch or branches of such fitting.
- c. The measurement of each line of pipe of each size which is to be paid for on a unit price basis will be continuous through, and shall include the full laying lengths of, all fittings and valves installed between the ends of each line; except that the laying lengths of reducers and increasers will be divided equally between the connected pipe sizes. Connecting piping for fire hydrants will be paid under the unit price for fire hydrants.

6.01 CLASS 50 or 52 DUCTILE IRON PIPE (ALL SIZES). (Detail 103, 103a, 104, 104a, 110). Includes the specified pipe, polyethylene wrap, fittings, bends, tracing wire, excavation, labor, equipment, bedding, backfill disinfection, dechlorination, pressure testing, restoration of non-paved areas, etc. required to install the specified pipe at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid LINEAR FEET (LF).

6.02.A CLASS 50 or 52 DUCTILE IRON PIPE (ALL SIZES) – INTERNAL RESTRAINED JOINT. (Detail 103, 103a, 104, 104a, 110). Includes the specified pipe, polyethylene wrap, fittings, bends, tracing wire, excavation, labor, equipment, bedding, backfill, disinfection, dechlorination, pressure testing, restoration of non-paved areas, etc. required to install the specified pipe at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid LINEAR FEET (LF).

6.02.B CLASS 50 or 52 DUCTILE IRON PIPE (ALL SIZES) –RESTRAINED JOINT. (Detail 103, 103a, 104, 104a, 110). Includes the specified pipe, polyethylene wrap, fittings, bends, tracing wire, excavation, labor, equipment, bedding, backfill, disinfection, dechlorination, pressure testing, restoration of non-paved areas, etc. required to install the specified pipe at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Pipe gaskets shall develop a wedging action between pairs of high-strength stainless steel elements spaced around the gasket (Field Lok®, Fast-Grip® or approved equal gaskets). The bend shall be restrained using mechanical joint restraint devices consisting of multiple gripping wedges incorporated into a follower gland compatible with all mechanical joints (Megalug Series 1100®, MJ Field Lok® or approved equal) Paid LINEAR FEET (LF).

6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (ALL SIZES). (Detail 103, 103a, 104, 104a, 111). Includes the specified pipe, polyethylene wrap, fittings, bends, excavation, labor, equipment, bedding, backfill, disinfection, pressure testing, restoration of non-paved areas, tracing wire etc. required to install the specified pipe at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid LINEAR FEET (LF).

6.03B C-900, C-909 Poly Vinyl Chloride (PVC) (ALL SIZES) – RESTRAINED JOINT. (Detail 103, 103a, 104, 104a, 111). Includes the specified pipe, polyethylene wrap, fittings, bends, tracing wire, excavation, labor, equipment, bedding, backfill, disinfection, pressure testing, restoration of non-paved areas, etc. required to install the specified pipe at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Pipe push on joints shall be restrained using devices designed and approved by the AWWA for C900 or C909 PVC pipe (Megalug Series 1600®, Eagle Loc 900® or approved equal restraint systems). Transitional joints shall be restrained using mechanical joint restraint devices designed for PVC pipe and consisting of multiple gripping wedges incorporated into a follower gland compatible with all mechanical joints (Megalug Series 2000®, MJ Field Lok® PV Series or approved equal) Paid LINEAR FEET (LF).

6.04 CASING PIPE. Includes the casing pipe (K.D.O.T. or Railroad Spec.), labor, equipment, excavation, backfill, restoration, etc. required to install the casing pipe at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid LINEAR FEET (LF).

- a. Crossings. Where tunneling is required in connection with railroad, highway, or primary road crossings, each crossing shall be measured for payment horizontally along the longitudinal center line of the enclosing conduit or pipe installed therein, from end to end of the enclosing conduit, or from end to end of the tunnel excavation where an enclosing conduit is not required. Each designated type of crossing shall include the following:
- b. Crossings in Earth Backfill Tunnel. The unit price bid for each crossing in earth backfill tunnel shall include all costs in connection with excavation and backfilling, the excess cost of installing pipe in tunnel above the amount bid for the pipe laid in open trench, all skids, jointing materials, stabilized sand backfill, and all other work for and in connection with the crossing, not paid for separately. Separate payment shall not be made for tunnel liner or supports which may be needed for Contractor's convenience; all such items shall be considered a subsidiary obligation of Contractor.
- c. Crossings in Conduit. The unit price bid for each crossing in pipe conduit or tunnel liner shall include all costs in connection with excavation and backfilling, pipe conduit or tunnel liner, the excess cost of installing pipe in pipe conduit or tunnel liner above the amount bid for the pipe laid in open trench, all skids, jointing materials, jacking pipe, jacking pits, sand backfill, end closures, and all other work for and in connection with the crossing, not paid for separately.

6.05 CLASS 200 S.D.R. 9 HDPE (HIGH DENSITY POLY-ETHYLENE) PIPE (2"). (Detail 115). Includes the specified pipe, preparation of the host pipe, insertion of HDPE pipe into host pipe, fittings, bends, excavation, labor, equipment, bedding, backfill, disinfection, pressure testing, restoration of non-paved areas, tracing wire etc. District shall supply

service line tees, saddle, curb stop and straight coupling. Contractor is required to install the specified pipe at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid LINEAR FEET (LF).

6.06 PREFORMED PIPE INSULATION.

Includes all labor and material necessary to install preformed pipe insulation, wrapped with a double layer of polyvinyl tape on specified pipe. The preformed pipe insulation shall be Foam Glas (manufactured by Pittsburg Corning) or approved equal. Paid LINEAR FEET (LF).

Water Main Size	Insulation Thickness
4 inches to 8 inches	2 – ½ inches
10 inches to 16 inches	3 – ½ inches

7. Connections to Existing Water Mains. Connections to existing water mains will be paid for at the lump sum prices bid. Each lump sum price named for a connection shall include all costs incurred for making the connection over and above the price of the connecting piping in place. Each lump sum price shall include furnishing and installing the tapping sleeve and valve, fittings; all excavation, blocking and backfilling work; tapping of existing main; and all other costs not included under other bid items.

7.01 CONNECT TO EXISTING MAIN/TIE-IN (ALL SIZES). Includes all labor, equipment, excavation, specified pipe, fittings, sleeves, couplings, blocking, anchoring, polyethylene wrap, disinfection, pressure testing, backfill and restoration, and any pipe required to make the connection as shown on the plans, and in accordance with the specifications. Paid EACH (EA).

7.02 TAPPING SLEEVE & VALVE (ALL SIZES) Includes the District approved tapping sleeve and valve, polyethylene wrap, labor, equipment, excavation, blocking, anchoring, disinfection, backfill, restoration, etc. to install the specified fitting at the locations shown on the plans in accordance with the specifications and standard drawing complete and ready for use. Paid EACH (EA) when complete.

8. Fire Hydrants. Fire hydrants will be paid for at the unit price bid. The unit price named for each fire hydrant installation shall include all costs incurred in furnishing and installing the fire hydrant; auxiliary gate valve, all connecting piping to the adjacent water main, accessories, and appurtenances, concrete blocking behind and under the fire hydrant, drainage facilities, yard restoration and all other costs not included under other bid items.

8.01 INSTALL FIRE HYDRANT ASSEMBLY. (Detail 109). Includes all labor, equipment, excavation, concrete blocking, 6" Ductile Iron Resilient Seated Gate Valve, Valve box, 6" Ductile Iron Anchor Coupling, 6" ductile iron leads (restrained) Fire Hydrant, extensions, granular drainage material, backfill and yard restoration to install fire hydrant complete and in accordance with the specifications and standard drawings. Paid EACH (EA).

8.02 INSTALL FUTURE FIRE HYDRANT VALVE. (Detail 109). Includes all labor, equipment, excavation, 6" Ductile Iron Resilient Seated Gate Valve, Valve box, Plug,

backfill and yard restoration to install future fire hydrant assembly complete and in accordance with the specifications and standard drawings. Paid EACH (EA).

8.03 REMOVE FIRE HYDRANT. Includes all labor, equipment, excavation, backfill and yard restoration to remove an existing fire hydrant, cap hydrant lead if necessary and return to the Northern Kentucky Water District warehouse. Paid EACH (EA).

8.04 RELOCATE FIRE HYDRANT. Includes allowing for Northern Kentucky Water District's Inspector to inspect the existing fire hydrant prior to reuse, returning unusable fire hydrants to the Northern Kentucky Water District Warehouse and picking up a replacement hydrant for use. Includes the labor, equipment, excavation, bedding, backfill, testing, disinfection, and yard restoration to relocate existing fire hydrant to valve, pipe, and anchoring tee as indicated on plans and on standard drawings contained in the plans. The pipe, valve and anchoring tee shall be paid under separate bid items when required. The Contractor to supply and install all anchoring devices, fire hydrant extensions, 6" ductile iron leads (restrained), concrete blocking, yard restoration, granular drainage material, etc, needed to install the fire hydrant complete and ready for use as shown on the plans, and in accordance with the specifications and standard drawings. Paid EACH (EA).

8.05 ADJUST FIRE HYDRANT TO GRADE. Includes the labor, equipment, excavation, bedding, backfill, testing, disinfection, and yard restoration to adjust the existing fire hydrant using the fire hydrant manufacturer's extension kit for adjustments of 18" or less. Adjustments greater than 18" require anchoring couplings and vertical bends to adjust to grade. The Contractor will supply and install all anchor couplings, bends, fire hydrant extension, concrete blocking, yard restoration, granular drainage material, etc, needed to adjust the fire hydrant complete and ready for use as shown on the plans, and in accordance with the specifications and standard drawings. Paid EACH (EA).

9. Valves. Sectionalizing valves in water mains will be paid for at the unit price bid for each size. The unit price shall include all costs incurred in completing the sectionalizing valve installation over and above the amount paid for piping in place. The unit price shall include furnishing and installing the sectionalizing valve, valve box, and appurtenances; excavation and backfill not included under piping; and all other costs not included under other bid items.

No separate payment will be made for fire hydrant auxiliary gate valves or tapping valves.

9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (4", 6", 8", 12"). (Detail 105). Includes the specified valve, labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. (contractor must supply mechanical joint restraints on restrained joint applications), required to install the specified valve at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. All External Dome and Packing Bolts Shall be Stainless Steel. Paid EACH (EA).

9.02 BUTTERFLY VALVE (16" AND LARGER). Includes the labor, equipment, valve and appurtenances, material, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. (contractor must supply mechanical joint restraints on restrained joint applications), required to install the specified valve at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid EACH (EA).

9.03 DUCTILE IRON RESILIENT WEDGE GATE VALVE WITH BEVELED GEARING.

Ductile iron body, non-rising stem, open left, 2" square operating nut, epoxy coated, mechanical joint, inlet and outlet connections, O-ring type packing, resilient wedge, 250 PSI working pressure, and conforming in all other ways to AWWA Standard C515 American Flow Control 2500 Resilient Wedge Gate Valve or approved equal. Valve body to be assembled with stainless steel bolts grade 304 or better. Accessory package (glands, gaskets and bolts) shall not be included. Includes the specified valve, labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. (contractor must supply mechanical joint restraints on restrained joint applications), required to install the specified valve at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. All External Dome and Packing Bolts Shall be Stainless Steel. Paid EACH (EA).

10. SERVICES

10.01 REPLACE and RECONNECT SERVICE LINE (3/4" THRU 2"). Includes the labor, equipment, excavation, bedding, backfill, and asphalt, concrete and yard restoration to install the service line at the locations shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready for use. Lead service lines encountered by the excavation shall be replaced from the main to and including the meter vault and meter setting. All service line material will be supplied by NKWD. Paid EACH (EA).

10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4" THRU 2"). Includes the labor, equipment, excavation, bedding, backfill, and asphalt, concrete and yard restoration to install the service line, new meter vault and yoke setting at the locations shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready for use. All service line material will be supplied by NKWD. Paid EACH (EA).

10.03 RECONNECT COPPER SERVICE (3/4" THRU 2"). Includes the labor, equipment, excavation, bedding, backfill and asphalt, concrete and yard restoration to reconnect the service line at the locations shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready for use. Lead service lines encountered by the excavation shall be replaced from the main to and including the meter vault and meter setting. All service line material will be supplied by NKWD. Paid EACH (EA).

10.04 RELOCATE WATER METER SETTING. Includes the labor, equipment, excavation, bedding, backfill and asphalt, concrete and yard restoration to install a new meter vault and yoke setting to the location shown on the plans or as directed, in accordance with the specifications and standard drawings complete and ready for use. All service line material will be supplied by NKWD. Paid EACH (EA).

10.05 INSTALL WATER METER SETTING. Includes the labor, equipment, excavation, bedding, backfill, testing, disinfection and asphalt, concrete and yard restoration to install a new meter vault and yoke setting to the location shown on the plans or as directed, in accordance with the specifications and standard drawings complete and ready for use. All service line material will be supplied by NKWD. Paid EACH (EA).

10.06 ADJUST EXISTING WATER VALVE BOX TO GRADE. Includes all labor, equipment, excavation, bedding, 2'x2'x4" concrete pad, backfill, testing, disinfection, and asphalt, concrete and yard restoration to install the valve box and valve toggle extensions (if required) and adjust the top of the box to finished grade complete and ready for use. Valve toggle extensions will be supplied by NKWD. Paid EACH (EA).

10.07 ADJUST WATER METER TO GRADE. Includes all labor, equipment, excavation, bedding, backfill, testing, disinfection, and asphalt, concrete and yard restoration to adjust the top of the box to finished grade complete and ready for use. Paid EACH (EA).

10.08 REMOVE EXISTING CURB STOP/METER CROCK. Includes the labor, equipment, excavation, backfill and asphalt, concrete or yard restoration to remove the existing curb stop or meter crock at the location shown on the plans or as directed, in accordance with the specifications and standard drawings. Paid EACH (EA).

10.09 INSTALL TEMPORARY WATER SERVICE. Includes the labor, equipment and materials for the installation and disinfection of temporary piping, flushing of temporary piping, removal of the existing meter and returning meter to the Owner, hooking up temporary water to meter setting, maintaining an uninterrupted water supply, repairs to any damaged or broken piping, installation of meter and removal of all piping and fittings upon completion of the work, Paid LUMP SUM (LS).

10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT.

This item covers the replacement of the privately-owned portion of the service line from the existing curb stop / meter to the building. Performance of private side lead service line replacement (PSLSLR) is contingent upon NKWD reaching agreements with individual property owners prior to performing the work. If no agreement is made, the contractor shall perform the public side work according to the plans and will be compensated for this work via the public side bid items. No compensation will be provided for elimination of the PSLSLR bid items. If a PSLSLR agreement is made, the contractor shall coordinate with NKWD inspection to determine final meter locations and any resulting changes in materials.

A bid item at the listed address is indicated that NKWD records show that the private portion of the service line contains lead, which may be different than the public side. The intent of the design is to install one continuous service line from the building to the new meter located within public right-of-way, to the extent possible.

This work shall be performed by a State of Kentucky licensed plumber, or under the direction thereof. The contractor must furnish all labor, equipment, materials, excavation, bedding, backfill, best management practices, safety devices, plumbing permits, coring and sealing of the foundation for the new service line penetration into the building, connections to the existing plumbing, removal of any piping within the building made obsolete by the new service connection, capping and properly abandoning the existing service line penetration into the building, pavement/yard restoration, and all other related items required to complete PSLSLR. All work shall be installed according to the Kentucky State Plumbing Code, and notes provided below. Payment is full compensation for all work involved in the PSLSLR, and restoration of private property as described below. Contractor shall be responsible for the following:

- Prior to commencing the work, the plumber shall inspect the existing private service line at the curb stop and the meter. If the plumber determines that the existing service line is copper at both locations, the plumber shall contact the NKWD inspector, and if confirmed by NKWD, the work shall terminate. If NKWD and plumber determines that the existing service line is lead, brass, galvanized steel or other non-lead-free material, the plumber shall continue with the replacement work.
- Utilize trenchless construction methods (i.e. cable pulling method or piercing/missile method) whenever possible to install the new copper service line. If trenchless construction methods are not possible, then an open cut trench method may be performed.
- Limit the area of disturbance on private property to the minimal amount as practical for any construction method used.
- Install new type-k copper service line, various sizes, from the curb stop/meter to approximately 6-inches beyond the first interior valve inside the building (or, if interior meter exists, to the outlet valve of the meter setting in the building).
- If interior meter exists, install a new exterior meter setting with a temporary straight piece of pipe according to NKWD rules and regulations. NKWD will provide all materials for new meter settings to the contractor. NKWD will set the meter and reading device and remove the existing inside meter.
- If an interior electrical grounding system is attached to the lead service line being replaced, temporarily remove the system and reinstall as required upon completion of work.
- Patch any hole in the foundation, floor or wall that was required to install the new copper service line.
- Backfill all excavations on private property with excavated spoils and include no less than 6-inches of topsoil.
- Seed and straw all impacted lawn areas during the growing season.
- Restore any hard-paved surface in kind to the nearest construction joint.
- Call Kentucky 811 and any other applicable utility locate call centers at least 48-hours before any excavation is performed. The contractor shall be responsible to locate all utilities within the proposed work area on the private property side of the PSLSLR. This includes the responsibility to hire a 3rd party utility locator as required. Any hit lines shall be the responsibility of the contractor to repair or replace (at its cost) in compliance with utility requirements.
- Post any "no parking" signage that will be necessary to perform the work.
- Perform all work in a manner which will prevent water service outages longer than 8-hours. If water service outage exceeds 8 hours, the contractor must temporarily return water service to the property until the next day. Any arrangement to provide temporary service to a property must be approved by NKWD.
- The contractor will not be responsible for removing or replacing any exterior obstacles, such as walls, fences, sculptures, ornaments, or furniture. These obstacles will be the responsibility of the property owners unless otherwise agreed upon by the property owner and NKWD to have the contractor perform this work. Additional costs for removal and replacement of these obstacles by the contractor will be negotiated by NKWD as a change order to this work.
- The contractor will not be responsible for removing or replacing any interior obstacles, such as furniture, drywall, paneling, storage items, etc. These obstacles will be the responsibility of the property owner unless otherwise agreed upon by the property owner and NKWD to have the contractor perform this work. Additional costs for

removal and replacement of these obstacles by the contractor will be negotiated by NKWD as a change order to this work.

- Coordination of this work with the property owners will be performed by the contractor. The contractor shall not discuss cost issues with the property owner directly, unless specifically permitted by the NKWD inspector. NKWD shall retain the right to be present for all site discussions between the contractor and the property owner.

10.10B PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT – Pressure Regulator & Expansion Tank Additive. If the Plumbing Code / the Plumbing Inspector requires a new pressure regulator and expansion tank as a result of the work performed under item 10.10 Private Side Lead Service Line Replacement, this item covers all labor, equipment, and materials to include a new pressure regulator and expansion tank as part of the service line replacement. This item can be applied to any Private Side Lead Service Line Replacement as it is not known which services will involve this requirement. Paid EACH (EA).

11. MISCELLANEOUS

11.01 CONCRETE ENCASEMENT. Includes the labor, equipment, excavation, backfill, concrete, restoration, etc. to construct the concrete encasement of the water main stream crossing as shown on the plans, and in accordance with the specifications and standard drawings. Paid LINEAR FEET (LF).

11.02 4" UNDERDRAIN. Includes the labor, equipment, excavation, bedding, materials, backfill, and restoration, etc.-required to install the underdrain at the location shown on the plans in accordance with the specifications and standard drawings complete and ready for use. Paid EACH (EA).

11.03 PRESSURE REDUCING VALVE PIT. Includes the labor, equipment, excavation, concrete pit construction, materials, pipe work, electrical work, backfill, restoration, etc. required to install the specified pressure reducing valve pit at the location shown on the plans in accordance with the plans, specifications and standard drawings complete and ready for use. Paid EACH (EA).

11.04 PLUG AND BLOCK (ALL SIZES). This item shall include the specified plug, polyethylene wrap, labor, equipment, excavation, concrete, backfill and restoration required to install the plug and blocking at the location shown on the plans or as directed in accordance with the specifications. Paid EACH (EA).

11.05 AIR RELEASE VALVE. (Detail 106). This item shall include labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. required to install the air release valve at the location shown on the plans or as directed in accordance with the specifications. All materials will be supplied by NKWD. Paid EACH (EA).

11.06 ANCHORING TEE AND BLOCK (ALL SIZES). Includes the specified anchoring tee, labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. required to install the specified anchoring tee at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid EACH (EA).

11.07 DUCTILE IRON TEE AND BLOCK (ALL SIZES). Includes the specified ductile iron tee, labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. required to install the specified tee at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid EACH (EA).

11.08 DUCTILE IRON CROSS (ALL SIZES). Includes the specified ductile iron cross, labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. required to install the specified ductile iron cross at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid EACH (EA).

11.09 REDUCER (ALL SIZES). Includes the reducer, labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. required to install the specified reducer at the location shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. Paid EACH (EA).

11.10 FLUSHING DEVICE. (Detail 113) Includes the labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. required to install the specified flushing device at the location shown on the plans in accordance with the specifications and standard drawings complete and ready for use. Flushing device materials will be supplied by NKWD. Paid EACH (EA).

11.11 TEST TAP. Includes the labor, equipment, excavation, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc.-required to install the specified test tap at the location shown on the plans in accordance with the specifications and standard drawings complete and ready for use. Test Tap materials will be supplied by NKWD. Paid EACH (EA).

11.12 STORM SEWER CONNECTION. Includes all labor, equipment, excavation, bedding, backfill and materials required to make the connection to the existing combination manhole as shown on the plans and in accordance with the specifications of KYTC and Sanitation District No. 1. Paid EACH (EA).

11.13 REMOVE EXISTING CATCH BASIN & RECONSTRUCT NEW DOUBLE CURB BOX INLET. Includes all labor, equipment, excavation, backfill and materials to remove an existing catch basin, dispose of existing catch basin in a proper manner in accordance with all applicable local, state, or federal regulations and installation of a Standard Double Curb Box Inlet as per the detail in the construction drawings. All work shall also be in accordance with the specifications of KYTC and Sanitation District No. 1. Paid EACH (EA)

11.14 REMOVE EXISTING STORM PIPE & CONSTRUCT HDPE STORM PIPE. Includes all labor, equipment, excavation, bedding, backfill and materials to remove the existing storm sewer pipe and install new HDPE storm pipe as per plan. All debris materials shall be disposed of in a proper manner and shall be as directed by all applicable local, state, or federal regulations. Installation of new HDPE storm pipe shall be in accordance with the Storm Sewer Pipe Bedding – Flexible Pipe (Plastic) detail on

the construction drawings. All work shall also be in accordance with the specifications of KYTC and Sanitation District No. 1. Paid LINEAR FOOT (LF)

11.15 SLEEVE OUT EXISTING TEE/CROSS/VALVE. Includes all labor, equipment, excavation, specified pipe, fittings, couplings, polyethylene wrap, bedding, backfill, disinfection, pressure testing, restoration, etc. required to remove the existing tee/cross/valve and install a straight pipe at the location shown on the plans or as directed in accordance with the specifications. Paid EACH (EA).

11.16 CORROSION TEST STATION. Includes the labor, equipment and materials required to place test stations, and electrodes, in accordance with specifications and details. Paid EACH (EA).

11.17 MAGNESIUM ANODES. Includes the labor, equipment and materials required to place magnesium anodes and associated wiring, in accordance with specifications and details. Paid EACH (EA).

12. RESTORATION

12.01. Pavement Removal and Replacement. The unit prices per square yard for pavement removal and replacement shall be measured for (length x width) payment horizontally along the center line of the pipe, through manholes, and to the edge of the existing pavement; or, where the edge of the existing pavement is not clearly defined, to the edge of the pavement replacement. The unit prices bid for pavement removal and replacement shall include all costs in connection therewith, including cutting, removal, and disposal of old pavement; construction of new pavement; and all extra compaction effort required for backfill beneath pavement.

12.02 Miscellaneous Asphaltic Concrete Paving. Existing valve boxes shall be abandoned by removal or filling with concrete at the discretion of the District. This cost shall be incidental to any bid item associated with asphaltic concrete paving.

12.03. Sidewalk or Driveway Removal and Replacement. The unit prices per square yard bid for sidewalk or driveway removal and replacement shall include all costs involved in cutting and removing sidewalk or driveway, and all labor and materials required to replace the sidewalks.

Measurement for payment for sidewalk or driveway removal and replacement shall be on a square yard basis and shall include only the area actually removed and replaced, between joints, over the pipeline trench.

All costs involved in repairing or removal and replacement of existing sidewalk or driveway outside the specified pay limits, where damaged during the construction operations, shall be considered a subsidiary obligation of Contractor and shall be borne by Contractor.

12.04. MISCELLANEOUS CONCRETE. Concrete for encasement or blocking of pipe and fittings not included as parts of pipelines will be measured for payment as the actual volume of concrete placed within the limits as indicated or specified.

Concrete for total encasement shall be computed using the maximum allowable trench width (or pipe OD plus 24 inches where no maximum is specified), the minimum clear depth below the pipe, and the minimum cover over the pipe, less the volume occupied by the pipe itself.

Unless otherwise authorized by Owner, all additional concrete for encasement or blocking required outside the specified pay limits will be considered a subsidiary obligation of Contractor and no direct payment shall be made therefore.

All concrete which is required in connection with manholes or structures, pavement or sidewalk replacement, and other pay items shall be included in the lump sum or unit price bid for the pay item.

The unit price bid for miscellaneous concrete shall include concrete, reinforcing steel, forms, finishing, curing, and all other work or materials required to complete the concrete work.

Existing valve boxes shall be abandoned by removal or filling with concrete at the discretion of the District. This cost shall be incidental to any bid item associated with concrete paving or other concrete work.

12.05 ASPHALTIC CONCRETE MILLING AND PAVING. Includes the labor, equipment and materials required to perform any necessary milling, placing of asphalt to a depth of 1.5 inches in accordance with specifications and standard drawing #103A. Paid SQUARE YARD (SY).

12.06 ASPHALTIC CONCRETE. Includes the labor, equipment and materials required to perform any necessary removal and replacement of asphalt to a minimum depth of 8 inches or match existing depth (whichever is greater) and abandoning of valve boxes in accordance with specifications and standard drawing #103A. Paid SQUARE YARD (SY).

12.07 ASPHALTIC CONCRETE - DRIVEWAY. Includes the labor, equipment and materials required to perform any necessary removal and replacement of asphalt to a minimum depth of 6 inches or match existing depth (whichever is greater) in accordance with specifications and standard drawing #103A. Culvert repair or replacement shall be considered incidental to driveway restoration. Paid SQUARE YARD (SY).

12.08 ASPHALTIC CONCRETE. – WINTER CHARGE. In effect when a sole asphalt plant is operating within a 50 mile radius of the project. Includes the labor, equipment and materials required to perform any necessary removal and replacement of asphalt to a minimum depth of 6 inches or match existing (whichever is greater) and abandoning of valve boxes in accordance with specifications and standard drawing #103A. Paid SQUARE YARD (SY).

12.09 CONCRETE PAVEMENT. Includes the labor, equipment and materials required to remove and replace a minimum of 8" KDOT class A Concrete or to match existing depth (whichever is greater), and abandoning of valve boxes in accordance with specifications and standard drawing #103A. Paid SQUARE YARD (SY).

12.10 CONCRETE DRIVEWAY. Includes the labor, equipment and materials required to remove and replace the driveway concrete to a minimum depth of 6 inches or match existing depth (whichever is greater). Culvert repair or replacement shall be considered incidental to driveway restoration. Paid SQUARE YARD (SY).

12.11 CONCRETE CURBING. Includes the labor, equipment and materials required to place KDOT class A Concrete to match existing in accordance with specifications and standard drawings. Paid LINEAR FEET (LF).

12.12 CONCRETE SIDEWALK. Includes the labor, equipment and materials required to remove and replace the sidewalk concrete to match existing depth. This item also includes any requirements to install sidewalk ramps per ADA standards. Paid SQUARE YARD (SY).

12.13 GRAVEL DRIVEWAY/PARKING AREA. Includes the labor, equipment and materials required to replace and grade gravel driveway to match existing depth. Paid SQUARE YARD (SY).

12.14 BEST MANAGEMENT PRACTICE. Includes the labor, equipment and materials required to conform and comply with the best management practices to control soil erosion as shown on the plans and specifications. Paid LUMP SUM (LS).

12.15 CONCRETE KEY BLOCK. Includes the labor, equipment and materials required to construct concrete key block and drain piping as shown on the plans. Paid EACH (EA).

End of Section

SECTION 01070

ABBREVIATIONS OF TERMS AND ORGANIZATIONS

1. LIST OF ABBREVIATIONS. Reference to standards and organizations in the Specifications shall be by the following abbreviated letter designations:

AA	Aluminum Association
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ACPA	American Concrete Pipe Association
AFBMA	Antifriction Bearing Manufacturers Association
AGA	American Gas Association
AGMA	American Gear Manufacturers Association
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
APA	American Plywood Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASSE	American Society of Sanitary Engineers
ASTM	American Society for Testing and Materials
AWG	American Wire Gage
AWPA	American Wood-Preservers' Association
AWPB	American Wood Preservers Bureau
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders Hardware Manufacturers Association
CDA	Copper Development Association
CISPI	Cast Iron Soil Pipe Institute
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard (U.S. Department of Commerce)
DIPRA	Ductile Iron Pipe Research Association
EEI	Edison Electric Institute
EJCDC	Engineers' Joint Contract Documents Committee
EPA	Environmental Protection Agency
Fed Spec	Federal Specification
FHWA	Federal Highway Administration

FIA	Factory Insurance Association
FM	Factory Mutual
IEEE	Institute of Electrical and Electronics Engineers
IFI	Industrial Fasteners Institute
IRI	Industrial Risk Insurers
MIL	Military Specification
MSS	Manufacturers Standardization Society of Valve and Fitting Industry
NBS	National Bureau of Standards
NCSPA	National Corrugated Steel Pipe Association
NEC	National Electrical Code
NECA	National Electrical Contractors Association
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NIST	National Institute of Standards and Technology
NPC	National Plumbing Code
NPT	National Pipe Thread
NRMCA	National Ready Mixed Concrete Association
NSC	National Safety Council
NSF	National Sanitation Foundation
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PCI	Prestressed Concrete Institute
PS	Product Standard
SAE	Society of Automotive Engineers
SI	Système International des Unités (International System of Units)
SPFA	Steel Plate Fabricators Association
SSI	Scaffolding and Shoring Institute
SSPC	Steel Structures Painting Council
UL	Underwriters' Laboratories

End of Section

Section 01300

SUBMITTALS

1. PROGRESS SCHEDULE. After the preconstruction conference and before Work is started, Contractor shall submit to Owner for review a schedule of the proposed construction operations. Owner shall cooperate with Contractor in arrangements for continuity of service and operation of valves and other control facilities. The progress schedule shall indicate the sequence of the Work, the time of starting and completion of each part, and the time for making connections to existing piping, structures, or facilities.

2. PROGRESS REPORTS. A progress report shall be furnished to Owner with each Application for Payment. If the Work falls behind schedule, Contractor shall submit additional progress reports at such intervals as Owner may request.

Each progress report shall include sufficient narrative to describe current and anticipated delaying factors, their effect on the progress schedule, and proposed corrective actions.

Any Work reported complete, but which is not readily apparent to Owner, must be substantiated with satisfactory evidence.

3. SURVEY DATA. All field books, notes, and other data developed by Contractor in performing surveys required as part of the Work shall be available to Owner for examination throughout the construction period. All such data shall be submitted to Owner with the other documentation required for final acceptance of the Work.

4. SHOP DRAWINGS AND ENGINEERING DATA.

4.01. General. Shop Drawings and engineering data (submittals) covering all equipment and fabricated and building materials which will become a permanent part of the Work under this Contract shall be submitted to Owner, at the Owner's address given in the Agreement. Submittals shall verify compliance with the Contract Documents, and shall include drawings and descriptive information in sufficient detail to show the kind, size, arrangement, and operation of component materials and devices; the external connections, anchorages, and supports required; performance characteristics; and dimensions needed for installation and correlation with other materials and equipment. When an item consists of components from several sources, Contractor shall submit a complete initial submittal including all components.

All submittals, regardless of origin, shall be stamped with the approval of Contractor and identified with the name and number of this Contract, Contractor's name, and references to applicable specification paragraphs and Contract Drawings. Each submittal shall indicate the intended use of the item in the Work. When catalog pages are submitted, applicable items shall be clearly identified and inapplicable data crossed out. The current revision, issue number, and date shall be indicated on all drawings and other descriptive data.

Contractor shall be solely responsible for the completeness of each submission. Contractor's stamp of approval is a representation to Owner that Contractor accepts sole responsibility for determining and verifying all quantities, dimensions, field construction

criteria, materials, catalog numbers, and similar data, and that Contractor has reviewed and coordinated each submittal with the requirements of the Work and the Contract Documents.

All deviations from the Contract Documents shall be identified as deviations on each submittal and shall be tabulated in Contractor's letter of transmittal. Such submittals shall, as pertinent to the deviation, indicate essential details of all changes proposed by Contractor.

One copy of each drawing and necessary data shall be submitted to Owner for its record. The Owner intends to use this for information only. If requested by Contractor, up to three additional copies may be submitted for review and approval by Owner. Owner will return marked copies (or one marked reproducible copy) to Contractor. Owner will not accept submittals from anyone but Contractor. Submittals shall be consecutively numbered in direct sequence of submittal and without division by subcontracts or trades.

4.02. Owner's Review of Submittals. Owner's review of submittals will cover only general conformity to the Drawings and Specifications, external connections, and dimensions which affect the layout. Owner's review does not indicate a thorough review of all dimensions, quantities, and details of the material, equipment, device, or item shown. Owner's review shall not relieve Contractor of Contractor's sole responsibility for errors, omissions, or deviations in the drawings and data, nor of Contractor's sole responsibility for compliance with the Contract Documents.

If Contractor requests a review and response, Owner's submittal review period shall be 14 consecutive calendar days in length and shall commence on the first calendar day immediately following the date of arrival of the submittal or resubmittal in Owner's office. The time required to mail the submittal or resubmittal back to Contractor shall not be considered a part of the submittal review period.

When the drawings and data are returned marked "NOT ACCEPTABLE" or "RETURNED FOR CORRECTION", the corrections shall be made as noted thereon and as instructed by Owner and corrected copies (or one corrected reproducible copy) resubmitted.

When the drawings and data are returned marked "EXCEPTIONS NOTED", "NO EXCEPTIONS NOTED", or "RECORD COPY", no additional copies need be furnished unless requested by Owner at time of review.

4.03. Resubmittal of Drawings and Data. Contractor shall accept full responsibility for the completeness of each resubmittal. Contractor shall verify that all corrected data and additional information previously requested by Owner are provided on the resubmittal.

When corrected copies are resubmitted, Contractor shall in writing direct specific attention to all revisions and shall list separately any revisions made other than those called for by Owner on previous submissions.

Requirements specified for initial submittals shall also apply to resubmittals. Resubmittals shall bear the number of the first submittal followed by a letter (A, B, etc.) to indicate the sequence of the resubmittal.

Re-submittals shall be made within 30 days of the date of the letter returning the material to be modified or corrected, unless within 14 days Contractor submits an acceptable request for an extension of the stipulated time period, listing the reasons the resubmittal cannot be completed within that time.

Any need for more than one resubmission, or any other delay in obtaining Owner's review of submittals, will not entitle Contractor to extension of the Contract Times unless delay of the Work is directly caused by a change in the Work authorized by a Change Order.

End of Section

Section 01400

QUALITY CONTROL

1. TESTING SERVICES. All tests to determine compliance with the Contract Documents shall be performed by an independent commercial testing firm acceptable to Owner. The testing firm's laboratory shall be staffed with experienced technicians, properly equipped and fully qualified to perform the tests in accordance with the specified standards.

Testing services provided by Owner are for the sole benefit of Owner; however, test results shall be available to Contractor. Testing necessary to satisfy Contractor's internal quality control procedures shall be the sole responsibility of Contractor.

1.01. Testing Services Furnished by Contractor. Unless otherwise specified, Contractor shall provide all testing services in connection with the following:

- Concrete materials and mix designs.
- Asphaltic concrete materials and mix designs.
- Embedment, fill and backfill materials.
- All other tests and engineering data required for Owner's review of materials and equipment proposed to be used in the Work.

Contractor shall obtain Owner's acceptance of the testing firm before having services performed, and shall pay all costs for these testing services.

1.02. Testing Services Furnished by Owner. Unless otherwise specified, Owner shall provide for tests made on the following materials and equipment:

- Concrete.
- Asphaltic concrete.
- Moisture-density and relative density tests on embedment, fill, and backfill materials.
- In-place field density tests on embedments, fills, and backfill.
- Other materials and equipment at the discretion of Owner.

Testing, including sampling, will be performed by Owner or the testing firm's laboratory personnel, in the general manner indicated in the Specifications. Owner shall determine the exact time, location, and number of tests, including samples.

Arrangements for delivery of samples and test specimens to the testing firm's laboratory will be made by Owner. The testing firm's laboratory shall perform all laboratory tests within a reasonable time consistent with the specified standards and shall furnish a written report of each test.

Contractor shall furnish all sample materials and cooperate in the testing activities, including sampling. Contractor shall interrupt the Work when necessary to allow testing, including sampling, to be performed. Contractor shall have no claim for an increase in Contract Price or Contract Times due to such interruption. When testing activities,

including sampling, are performed in the field by Owner or the testing firm's laboratory personnel, Contractor shall furnish personnel and facilities to assist in the activities.

If testing shows workmanship and/or materials does not meet established requirements, the Contractor shall be responsible for all additional testing cost to ensure compliance.

1.03. Transmittal of Test Reports. Written reports of tests and engineering data furnished by Contractor for Owner's review of materials and equipment proposed to be used in the Work shall be submitted as specified for Shop Drawings.

End of Section

TEMPORARY FACILITIES

1. PRESENCE IN THE AREA. The Contractor understands and agrees that during the performance of the Contract, it shall maintain a presence within such proximity of the Work Site which will allow it to respond to an emergency at the Work Site within one hour of receiving notice of an emergency, including emergencies occurring during non-working hours. The Contractor shall provide a list of emergency phone numbers for such purposes.

If the Contractor does not have such a presence, it may satisfy this requirement by sub-contracting with a sub-contractor that does have such a presence, provided that any such sub-contractor must be approved by the Owner, in its sole discretion, prior to the project pre-construction meeting.

2. WATER. Water in reasonable amounts required for and in connection with the Work to be performed will be furnished at existing fire hydrants by Owner without charge to Contractor. All water used in testing and disinfection of mains will be furnished by the Owner for the first test only. Contractor shall furnish necessary pipe, hose, nozzles, and tools and shall perform all necessary labor. Contractor shall make arrangements with Owner (who will fix the time, rate, and duration of each withdrawal from the distribution system) as to the amount of water required and the time when the water will be needed. Unnecessary waste of water will not be tolerated. Special hydrant wrenches shall be used for opening and closing fire hydrants. In no case shall pipe wrenches be used for this purpose.

3. POWER. Contractor shall provide all power for heating, lighting, operation of Contractor's plant or equipment, or for any other use by Contractor.

4. TELEPHONE SERVICE. Contractor shall make all necessary arrangements and pay all installation charges for telephone lines in its offices at the Site and shall provide all telephone instruments.

5. SANITARY FACILITIES. Contractor shall furnish temporary sanitary facilities at the Site, as provided herein, for the needs of all construction workers and others performing work or furnishing services on the Project.

Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet will be furnished for each 20 persons. Contractor shall enforce the use of such sanitary facilities by all personnel at the Site.

6. MAINTENANCE OF TRAFFIC. Contractor shall conduct his work to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross, obstruct, or close roads, driveways, and walks, whether public or private, Contractor shall provide and maintain suitable and safe bridges, detours, or other temporary expedients for the accommodation of public and private travel, and shall give reasonable notice to owners of private drives before interfering with them. Such maintenance of traffic will not be required when Contractor has obtained permission from the owner and tenant of

private property, or from the authority having jurisdiction over public property involved, to obstruct traffic at the designated point.

In making open cut street crossings, Contractor shall not block more than one-half of the street at a time. Whenever possible, Contractor shall widen the shoulder on the opposite side to facilitate traffic flow. Temporary surfacing shall be provided as necessary on shoulders.

The Contractor shall wherever necessary or as required by the Owner or the authority having jurisdiction provide, erect and maintain proper lights, signs, barricades, temporary guardrail, other traffic control devices, and furnish watchmen and flagmen as may be necessary to maintain safe traffic conditions in accordance with the Manual of Uniform Traffic Control Devices. Contractor shall use standard signage found in the latest edition of the Federal Highway Administration's "Standard Highway Signs and Markings" manual.

The Contractor shall be liable for and hold the Owner free and harmless from all damages occasioned in any way by its actions or neglect or those of its agents, employees, or workmen.

Work that requires the Contractor to shut down the road on weekends or at nights is considered an incidental to the project.

The Contractor at all times shall conduct the work in such manner as to cause as little interference as possible with private business or with private and public travel on the public highway. All damage (other than that resulting from normal wear and tear) to existing roads or pavements shall be repaired to withstand traffic in a safe condition.

Where the Contractor finds it necessary to remove excavated material to some other location, care should be taken not to overload trucks, which would in turn spill material out upon highways. Any such material spilled upon highways shall be immediately cleaned up from the location and properly disposed of per applicable regulation.

Where it is necessary and is agreeable with public and private property owners, excavated materials may be temporarily piled in the streets or roadways, however, one lane of traffic must be maintained at all times.

After excavated materials have been removed, all hard surface streets or roadways shall be thoroughly cleaned and left free of dirt, gravel and dust. Streets or roadways, which do not have hard surfaces, must be restored to their original condition at the expense of the Contractor. Streets and roadways shall be kept in a safe and passable condition at all times.

6.01. Temporary Bridges. Contractor shall construct substantial bridges at all points where it is necessary to maintain traffic across pipeline construction. Bridges in public streets, roads, and highways shall be acceptable to the authority having jurisdiction thereover. Bridges erected in private roads and driveways shall be adequate for the service to which they will be subjected. Bridges shall be provided with substantial guardrails and with suitably protected approaches. Footbridges shall be at least 4 feet wide, provided with handrails and uprights of dressed lumber. Bridges shall be maintained in place as long as

the conditions of the Work require their use for safety of the public. When necessary for the proper prosecution of the Work in the immediate vicinity of a bridge, the bridge may be relocated or temporarily removed for such period as Owner may permit.

6.02. Detours. Where required by the authority having jurisdiction thereover that traffic be maintained over any construction work in a public street, road, or highway, and the traffic cannot be maintained on the alignment of the original roadbed or pavement, Contractor shall, at its own expense, construct and maintain a detour around the construction work. Each detour shall include a bridge across the pipe trench and all necessary barricades, guardrails, approaches, lights, signals, signs, and other devices and precautions necessary for protection of the Work and safety of the public.

7. BARRICADES AND LIGHTS. All streets, roads, highways, and other public thoroughfares, which are closed to traffic, shall be protected by effective barricades on which shall be placed acceptable warning signs. Barricades shall be located at the nearest intersecting public highway or street on each side of the blocked section.

All open trenches and other excavations shall have suitable barricades, signs, and lights to provide adequate protection to the public. Obstructions, such as material piles and equipment, shall be provided with similar warning signs and lights.

All barricades and obstructions shall be illuminated with warning lights from sunset to sunrise. Material storage and conduct of the Work on or alongside public streets and highways shall cause the minimum obstruction and inconvenience to the traveling public.

All barricades, signs, lights, and other protective devices shall be installed and maintained in conformity with applicable statutory requirements and, where within railroad and highway rights-of-way, as required by the authority having jurisdiction thereover.

8. TRAFFIC CONTROL. In addition to the requirements of the maintenance of traffic and barricades and lights paragraphs in this section, traffic control shall be as set forth herein.

During periods of inclement weather, rush-hour traffic, or during periods of unusually heavy traffic, the Owner may require the Contractor to cease operations in order to adequately handle the traffic. The Owner reserves the right to require the suspension or delay of certain operations, or the expediting of other operations, at no additional cost to the Owner, to provide a proper sequence of operations which will promote the satisfactory movement of traffic. The Owner may require additional barricades, lights, or flagmen at any time or at any place necessary for proper protection of traffic, but approval by the Owner of the Contractor's method of operation shall not relieve the Contractor of his responsibility to protect traffic.

The use and duration of using heavy steel plates to convey traffic across open excavations shall be kept to a minimum. Steel plates shall be secured in an appropriate manner to prevent them from moving. The purpose of this requirement is to minimize the sound to the residents, institutions, commercial establishments, etc. The Owner reserves the right, at no additional cost to the Owner, to require the Contractor to complete certain operations and street re-paving so steel plates are not required.

The use of heavy steel plates during should be keep to a minimum. The Contractor shall place traffic cones behind the curb or other visible location to help identify the beginning and

termination of the steel plates. Special precautions shall be taken by the Contractor if steel plates are used during inclement weather. The Contractor shall be responsible for notifying the authority having jurisdiction over the roadway maintenance (snow removal) with the locations of the steel plates prior to each inclement weather event. The Contractor shall maintain the traffic cones and steel plates.

Contractor shall take extra precautions to provide and maintain emergency access on all streets and roads and to all residential, commercial, and other properties for police and fire departments and emergency medical service throughout the construction operations.

Contractor shall maintain the use of existing walks for pedestrians at all times. Additional requirements are specified in the temporary bridge subparagraph in this section.

9. TRAFFIC CONTROL PLAN. To obtain a permit to work within public rights-of-way, Contractor may be required to prepare and submit to the appropriate agencies, a traffic control plan in conformance with the requirements of the authority having jurisdiction thereover.

10. FENCES. All existing fences affected by the Work shall be maintained by Contractor until completion of the Work. Fences which interfere with construction operations shall not be relocated or dismantled until written permission is obtained from the owner of the fence, and the period the fence may be left relocated or dismantled has been agreed upon. A copy of all written permissions shall be submitted to Owner. Where fences must be maintained across the construction easement, adequate gates shall be installed. Gates shall be kept closed and locked at all times when not in use.

On completion of the Work across any tract of land, Contractor shall restore all fences to their original or to a better condition and to their original location.

11. PROTECTION OF PUBLIC AND PRIVATE PROPERTY, DAMAGE TO EXISTING PROPERTY. Contractor shall protect, shore, brace, support, and maintain all underground pipes, conduits, drains, and other underground construction uncovered or otherwise affected by his construction operations. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences, and other surface structures affected by construction operations, together with all sod, shrubs, trees in yards, parkways, and medians shall be restored to their original or better condition, whether within or outside the easement. Unless otherwise specified, all replacements shall be made with new materials.

Sodded and landscaped areas on improved property (yards) shall be disturbed only to the extent required to permit construction. Such areas shall not be used as storage sites for construction supplies and, insofar as practicable, shall be kept free from stockpiles or excavated materials.

No trees shall be removed outside the permanent easement, except where authorized by Owner. Hand excavation shall be employed as necessary to prevent injury to trees. Trees left standing shall be adequately protected against damage from construction operations.

Contractor shall be responsible for all damage to streets, curbs/gutters, roads, sidewalks, shoulders, ditches, embankments, culverts, bridges, traffic loops and other public or private property, regardless of location or character, which may be caused by transporting equipment, materials, or workers to or from the Work or any part or site thereof, whether by him or his

Subcontractors. Contractor shall make satisfactory and acceptable arrangements with the owner of, or the agency or authority having jurisdiction over, the damaged property concerning its repair or replacement or payment of costs incurred in connection with the damage and shall furnish a written verification of all agreements.

Should the Contractor's operations damage any existing underground or aboveground utility, installation, structure, or other construction, Contractor shall immediately notify the authority owning or having jurisdiction over and control of the utility, installation, structure, or other construction, and make a report of such damage. A copy of the report shall be submitted to the Owner. The damaged item shall be repaired immediately by and at the expense of the Contractor unless otherwise specified or acceptable to the authority or owner having jurisdiction over, or to the Owner.

The utility, installation, structure, or other structures damaged by Contractor's operations shall be repaired, replaced, or otherwise restored in accordance with the local ordinances, standards, and requirements of the applicable authority or owner having jurisdiction thereover and shall be subject to acceptance by the Owner.

Special precaution shall be taken by the Contractor to avoid damage to existing overhead and underground utilities owned and operated by the Owner or other public or private utility companies.

With particular respect to existing underground utilities, all available information concerning their location has been shown on the drawings. While it is believed that the locations shown are reasonably correct, the Owner cannot guarantee the accuracy or adequacy of this information.

Before proceeding with the work, the Contractor shall confer with all public or private companies, agencies, property owners, or departments that own and operate utilities in the vicinity of the construction work. The purpose of this conference or conferences shall be to notify said companies, agencies or departments of the proposed construction schedule, verify the location of and possible interference with the existing utilities, fire protection systems, lawn irrigation systems, etc., that are shown on the plans, arrange for necessary suspensions of service, and make arrangements to locate and avoid interference with all other utilities (including house connections) that are not shown on the plans. The Owner has no objection to the Contractor arranging for said utility companies, agencies, or departments to locate and uncover their own utilities, however, insofar as the Owner is concerned, the Contractor shall bear entire responsibility for locating and avoiding or repairing damage to said existing utilities.

Where existing utilities or other underground structures are encountered, they shall not be displaced or molested unless necessary, and in such case they shall be replaced in as good or better condition than found as quickly as possible. All such utilities that are so damaged or molested shall be replaced at the Contractor's expense unless in the opinion of the Owner such damage was caused through no fault or action of the Contractor.

It is expected that the Contractor will be diligent in its efforts and use every possible means to locate existing utilities. Any claims for unavoidable damage based on improper or unknown locations will be thoroughly examined in the light of the Contractor's efforts to locate the said utilities or obstructions prior to beginning.

When construction is completed, the private property owner's facilities and grounds shall be restored to as good or better condition than found and as quickly as possible at the Contractor's expense.

All water mains and water service connections damaged by Contract's operations will be repaired by the Owner at the expense of the Contractor unless other arrangements are made. Customer irrigation piping damaged by Contractor's operations shall be repaired by and at the cost of the Contractor.

All fire hydrants and water control valves shall be kept free from obstruction and available for use at all times.

12. TREE AND PLANT PROTECTION. Tree and plant protection is of prime importance. Except where otherwise authorized, indicated, or specified, no trees or plants shall be removed. Activities near trees that are to be protected shall be kept to a minimum. Tree protection shall also include trimming, when necessary, to prevent damage by construction equipment.

Trees and plants to be removed shall be removed in such a manner as to avoid injury to surrounding trees and plants. Contractor shall be responsible for disposal of all trees and plants removed or damaged.

13. HAUL ROUTES. Contractor shall obtain and pay for all necessary permits from the applicable authority having jurisdiction thereover to allow use of public streets to transport equipment and material to and from the Site. At such time the Contractor shall request the agency having jurisdiction to establish the haul routes. A copy of the permit and designated haul routes shall be provided to the Owner prior to commencement of Work in that area.

14. PARKING. Contractor shall provide and maintain suitable parking areas for the use of all construction workers and others performing work or furnishing services in connection with the Project, as required to avoid any need for parking personal vehicles where they may interfere with public traffic, Owner's operations, or construction activities.

Contractor shall clean up all parking areas used and return them to their original state.

The location of the Contractor's parking areas shall be acceptable to Owner, and the owner and tenant of private property or to the authority having jurisdiction over public property upon which the parking area will be located.

15. RESIDENTIAL PARKING. Contractor shall provide appropriate areas for residents to park their vehicles during the construction operations adjacent to their properties, if required. This shall include making the appropriate areas available to the residents by not storing construction materials or equipment in these areas and providing signs and other notification methods acceptable to the Owner for instructing the residents on the location of the temporary parking and its intended use.

Additional requirements for notifying property owners and tenants of available temporary parking are covered in the project requirements section.

16. ACCESS ROADS. Contractor shall establish and maintain temporary access roads to various parts of the Site as required to complete the Project. Such roads shall be available for the use of all others performing work or furnishing services in connection with the Project.

17. NOISE CONTROL. Contractor shall take reasonable measures to avoid unnecessary noise. Such measures shall be appropriate for the normal ambient sound levels in the area during working hours. All construction machinery and vehicles shall be equipped with practical sound-muffling devices, and operated in a manner to cause the least noise consistent with efficient performance of the Work.

During construction activities on or adjacent to occupied buildings, and when appropriate, Contractor shall erect screens or barriers effective in reducing noise in the building and shall conduct his operations to avoid unnecessary noise which might interfere with the activities of building occupants.

18. DUST CONTROL. Contractor shall take reasonable measures to prevent unnecessary dust. Earth surfaces subject to dusting shall be kept moist with water or by application of a chemical dust suppressant. When practicable, dusty materials in piles or in transit shall be covered to prevent blowing dust.

Buildings or operating facilities, which may be affected adversely by dust, shall be adequately protected from dust. Existing or new machinery, motors, instrument panels, or similar equipment shall be protected by suitable dust screens. Proper ventilation shall be included with dust screens.

19. STORM WATER EROSION AND PREVENTION. The following is to be used as a guideline in conjunction with the plans for temporary drainage provisions, erosion control and pollution control as required by a Sanitation District #1 Permit and Kentucky Pollution Discharge Elimination System (KPDES). Reference "Kentucky Best Management Practices for Controlling Erosion, Sediment, and Pollutant Runoff from Construction Sites" and the "Northern Kentucky Sanitation District No. 1 Storm Water Permitting Guide".

19.01. GRADING PERMIT, NOTICE of INTENT and NOTICE of TERMINATION. The owner will be responsible for acquiring a Grading Permit from Sanitation District #1 and filing a Notice of Intent/Notice of Termination with the KPDES. A Grading Permit is necessary when the square footage of the pervious and impervious areas are equal to or greater than one acre.

A. Projects less than one acre:

- Best Management Practices that are shown on the plans and specifications are a minimum. Contractors are responsible for providing the minimum, and, if necessary will provide additional BMP's to satisfy the situation and the regulating authority.

B. Projects greater than one acre:

- Best Management Practices that are shown on the plans and specifications are a minimum. Contractors are responsible for providing the minimum, and, if necessary will provide additional BMP's to satisfy the situation and the regulating authority.

- Sanitation District #1 must be contacted at least 72 hours prior to any construction activity. (Andy Amen @ 859-578-6880)
- Site stabilization shall begin within 14 days where construction activity has permanently ceased.
- Site stabilization shall begin within 21 days where construction activity has temporarily ceased.
- BMP'S shall be checked a minimum of every 7 days and within 24 hours after a 0.5" rainfall. Contractor shall keep a maintenance log book that records the date, weather event, reason for inspection and signature. The maintenance log book shall be turned over to the Owner at the end of the project.

19.02. TEMPORARY DRAINAGE PROVISIONS. Contractor shall provide for the drainage of storm water and such water as may be applied or discharged on the Site in performance of the Work. Drainage facilities shall be adequate to prevent damage to the Work, the Site, and adjacent property.

Existing drainage channels and conduits shall be cleaned, enlarged, or supplemented as necessary to carry all increased runoff attributable to Contractor's operations. Dikes shall be constructed as necessary to divert increased runoff from entering adjacent property (except in natural channels), to protect Owner's facilities and the Work, and to direct water to drainage channels or conduits. Ponding shall be provided as necessary to prevent downstream flooding.

19.03. EROSION CONTROL. Contractor shall prevent erosion of soil on the Site and adjacent property resulting from it's construction activities. Effective measures shall be initiated prior to the commencement of clearing, grading, excavation, or other operation that will disturb the natural protection.

Work shall be scheduled to expose areas subject to erosion for the shortest possible time, and natural vegetation shall be preserved to the greatest extent practicable. Temporary storage and construction buildings shall be located, and construction traffic routed, to minimize erosion. Temporary fast-growing vegetation or other suitable ground cover shall be provided as necessary to control runoff.

20. POLLUTION CONTROL. Contractor shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris, and other substances resulting from construction activities. No sanitary wastes will be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris, or other substance will be permitted to enter sanitary sewers, and reasonable measures shall be taken to prevent such materials from entering any drain or watercourse.

21. CUSTOMER NOTIFICATION. The Contractor after approval by the Owner's representative shall notify all affected Owner customers a minimum of 48 hours prior to interrupting water service. Notification shall be made by the Contractor using the Northern Kentucky Water District "Interruption of Service Notice". All Owner customers shall be notified prior to having their water turned-off to have ample time to draw water for use until service is restored. Under no circumstance shall a customer of the Owner be without water service overnight. If water service or existing water system cannot be interrupted during normal daytime hours due to

water needs or high demands, the contractor may be required to conduct the work at night or on the weekend. This work is considered an incidental to the project.

It is the Contractor's responsibility to post "No Parking" signs twenty-four (24) hours in advance of starting work in designated parking zones. Said signs shall be removed upon completion of work. Signs shall not be left posted over weekends or holidays.

22. UNSAFE CONDITIONS. The Owner reserves the right to take whatever action necessary to correct an unsafe condition created by the Contractor at the Contractor's expense.

23. SECURITY. CONTRACTOR shall be responsible for protection of the Site, and all the Work, materials, equipment, and existing facilities thereon, against vandals and other unauthorized persons.

No Claim shall be made against OWNER by reason of any act of an employee or trespasser, and CONTRACTOR shall make good all damage to OWNER's property resulting from CONTRACTOR's failure to provide security measures as specified. Security measures shall be at least equal to those usually provided by OWNER to protect OWNER's existing facilities during normal operation, but shall also include such additional security fencing, barricades, lighting, and other measures as required to protect the Site.

24. STREAM CROSSINGS. The following is reprint of the requirements and conditions for blue line stream crossings which shall be followed:

**SECTION 401 WATER QUALITY CERTIFICATION
CONDITIONS FOR NATIONWIDE PERMIT NO. 12
WITHIN THE COMMONWEALTH OF KENTUCKY**

**General Certification -Nationwide Permit #12 - Utility Line Backfill and
Bedding**

This General Certification is issued January 6, 2017, in conformity with the requirements of Section 401 of the Clean Water Act of 1977, as amended (33USC 1314), as well as Kentucky Statute KRS 224.16-070.

The Commonwealth of Kentucky hereby certifies under Section 401 of the Clean Water Act (CWA) that it has reasonable assurances that applicable water quality standards under Kentucky Administrative Regulations Title 401, Chapter 5, established pursuant to Sections 301, 302, 304, 306 and 307 of the CWA, will not be violated for the activity covered under 33 CFR Part 330 Appendix A(B) (12), namely utility line backfill and bedding provided that the following conditions are met:

1. This general Water Quality Certification is limited to the crossing of streams by utility lines. The length of a single utility crossing shall not exceed twice the width of the stream. This document does not authorize the installation of utility lines in a linear manner within the stream channel or below the top of the stream bank.

2. The provisions of 401 KAR 5:005 Section 8 are hereby incorporated into this General Water Quality Certification. Namely, "Sewer lines shall be located at least 50 feet away from a stream which appears as a blue line on a USGS 7 ½ minute topographic map except where the sewer alignment crosses the stream. The distance shall be measured from the top of the stream bank. The cabinet may allow construction within the 50' buffer if adequate methods are used to prevent soil from entering the stream.

Gravity sewer lines and force mains that cross streams shall be constructed by methods that maintain normal stream flow and allow for a dry excavation. Water pumped from the excavation shall be contained and allowed to settle prior to re-entering the stream. Excavation equipment and vehicles shall operate outside of the flowing portion of the stream. Spoil material from the sewer line excavation shall not be allowed to enter the flowing portion of the stream." The provisions of this condition shall apply to all types of utility line stream crossings.

3. Removal of riparian vegetation in the utility line right-of-way shall be limited to that necessary for equipment access. Effective erosion and sedimentation control measures must be employed at all times during the project to prevent degradation of waters of the Commonwealth. Site regarding and reseeding will be accomplished within 14 days after disturbance.
4. Utility line construction projects through jurisdictional wetlands shall not result in conversion of the area to non-wetland status.
5. This General Certification shall not apply to those waters of the Commonwealth identified as Outstanding Resource Waters, Exceptional Waters or Cold Water Aquatic Habitat Waters, as designated by the Division of Water. An individual Water Quality Certification will be required for projects in these waters.

Non-compliance with the conditions of this general certification or violation of Kentucky state water quality standards may result in civil penalties.

This General Certification is issued January 6, 2017, (expires 5 years from this date) in conformity with the requirements of Section 401 of the Clean Water Act of 1977, as amended (33USC 1314), as well as Kentucky Statute KRS 224.16-070.

For additional information contact: Kentucky Division of Water, Water Quality Branch, 14 Reilly Road, Frankfort, Ky 40601 Phone (502)564-3410 Fax (502)564-4245

NATIONWIDE PERMIT CONDITIONS

GENERAL CONDITIONS: The Following general conditions must be followed in order for any authorization by a NWP to be valid:

1. Navigation. No activity may cause more than a minimal adverse effect on navigation.

2. Proper maintenance. Any structure of fill authorized shall be properly maintained, including maintenance to ensure public safety.

3. Erosion and siltation controls. Appropriate erosion and siltation controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date.

4. Aquatic life movements. No activity may substantially disrupt the movement of those species of aquatic life indigenous to the water body, including those species which normally migrate through the area, unless the activity's primary purpose is to impound water.

5. Equipment. Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.

6. Regional and case-by-case conditions. The activity must comply with any regional conditions which may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state or tribe in its section 401 water quality certification.

7. Wild and Scenic rivers. No activity may occur in a component of the National Wild and Scenic River System; or in a river officially designed by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely effect the Wild and Scenic River designation, or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service.)

8. Tribal rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

9. Water quality certification. In certain states, an individual Section 401 water quality certification must be obtained or waived (see CFR 330.4(c)).

10. Endangered Species.

a. No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which is likely to destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District Engineer if any listed species or critical habitat might be affected or is in the vicinity of the project, and shall not begin work on the activity until notified by the District Engineer that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized.

b. Authorization of an activity by a nationwide permit does not authorize the take of a threatened or endangered species as defined under the Federal Endangered Species Act. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with incidental take provisions, etc.) from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, both lethal and non-lethal takes of protected species are in violation of the Endangered Species Act. Information on the location of threatened and

endangered species and their critical habitat can be obtained directly from the offices of the U.S. Fish and Wildlife Service and National Marine Fisheries Service or their world web pages at <http://www.fws.gov>

11. Historic properties. No activity which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the DE has complied with the provisions of 33 CFR Part 325, Appendix C. The prospective permittee must notify the District Engineer if the authorized activity may affect historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)).

12. Compliance certification. Every permittee who has received a Nationwide permit verification from the Corps will submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the Corps with the authorization letter and will include: a.) A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions; b.) A statement that any required mitigation was completed in accordance with the permit conditions; c.) The signature of the permittee certifying the completion of the work and mitigation.

13. Multiple use of Nationwide permits. In any case where any NWP number 12 through 40 is combined with any other NWP number 12 through 40, as part of a single and complete project, the permittee must notify the District Engineer in accordance with paragraphs a, b, and c on the Notification General Condition number 13. Any NWP number 1 through 11 may be combined with any other NWP without notification to the Corps, unless notification is otherwise required by the terms of the NWPs. As provided at 33 CFR 330.6 © two or more different NWPs can be combined to authorize a single and complete project. However, the same NWP cannot be used more than once for a single and complete project.

SECTION 404 ONLY CONDITIONS:

In addition to the General Conditions, the following conditions apply only to activities that involve the discharge of dredged or fill material into waters of the U.S., and must be followed in order for authorization by the NWPs to be valid:

1. Water supply intakes. No discharge of dredged or fill material may occur in the proximity of a public water supply intake except where the discharge is for repair of the public water supply intake structures or adjacent bank stabilization.

2. Shellfish production. No discharge or dredged or fill material may occur in areas of concentrated shellfish production shellfish production, unless the discharge is directly related to a shellfish harvesting activity authorized by NWP 4.

3. Suitable material. No discharge of dredged or fill material may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.,) and material discharged

must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

4. Mitigation. Discharges of dredged or fill material into waters of the United States must be minimized or avoided to the maximum extent practicable at the project site (i.e., on-site), unless the District Engineer approves a compensation plan that the District Engineer determines is more beneficial to the environment than on-site minimization or avoidance measures.

5. Spawning areas. Discharge in spawning areas during spawning seasons must be avoided to the maximum extent practicable.

6. Obstruction of high flows. To the maximum extent practicable, discharges must not permanently restrict or impede the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to impound waters).

7. Adverse effects from impoundments. If the discharge creates an impoundment of water, adverse effects on the aquatic system caused by the accelerated passage of water and /or the restriction of its flow shall be minimized to the maximum extent practicable.

8. Waterfowl breeding areas. Discharges into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

9. Removal of temporary fills. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

TERMS FOR NATIONWIDE PERMIT NO. 12

Utility Line Discharges. Discharges of dredged or fill material associated with excavation, backfill or bedding for utility lines, including outfall and intake structures, provided there is no change in pre-construction contours. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquefiable, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone and telegraph messages, and rapid and television communication. The term "utility line" does not include activities which drain water of the United States, such as drainage tile, however, it does apply to pipes conveying drainage from another area. This NWP authorizes mechanized landclearing necessary for the installation of utility lines, including overhead utility lines, provided the cleared area is kept to the minimum necessary and pre-construction contours are maintained. However, access roads, temporary or permanent, or foundations associated with overhead utility lines are not authorized by this NWP. Material resulting from trench excavation may be temporarily sidecast (up to three months) into waters of the United States, provided that the material is not placed in such a manner that it is dispersed by currents or other forces. The DE may extend the period of temporary side-casting not to exceed a total of 180 days, where appropriate. The area of waters of the United States that is disturbed must be limited to the minimum necessary to construct the utility line. In wetlands, the top 6" to 12" of the trench should generally be backfilled with topsoil from the trench. Excess material must be removed to upland areas

immediately upon completion of construction. Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line. (See 33 CFR Part 322).

Notification: The permittee must notify the district engineer in accordance with the "Notification" general condition, if any of the following criteria are met:

- a. Mechanized land clearing in a forested wetland;
- b. A Section 10 permit is required for the utility line;
- c. The utility line in waters of the United States exceeds 500 feet; or,
- d. The utility line is placed within a jurisdictional area (i.e., a water of the United States), and it runs parallel to a streambed that is within that jurisdictional area. (Sections 10 and 404)

End of Section

TECHNICAL PROVISIONS

1. **WATER LINES**

A. **General**

The Contractor shall furnish all labor, materials, and equipment to install the water lines and appurtenances as shown on the plans and specifications. Construction shall be in accordance with the District's Standard Specifications & Drawings for the Installation of Water Mains. The Contractor is responsible for obtaining a current copy of the Standards from the District which may be obtained from the website at www.nkywater.org or by contacting Denise Manning at (859) 426-2718.

The Contractor shall be responsible for videotaping the entire project prior to the start of construction. The video shall show driveway crossings, drainage ditches, problem areas, lay of the land, etc. One copy shall be forwarded to the District. Pictures of specific areas are recommended.

All private residents shall be notified no less than 48 hours and all businesses, industrial and commercial customers shall be notified no less than 1 week prior to the interruption of service. All shutdowns shall be coordinated with the affected residents, with priority given to any special needs customers such as hospitals, schools, and customers with special medical needs

The water lines shall be Class 50 or 52 Ductile Iron Pipe, C900 or C909 P.V.C. Pipe as specified on the Work Order.

The District will secure right-of-way permits as needed.

Unless otherwise specified all pipe fittings, valves, fire hydrants and accessories shall be rated for a minimum of 250 psi working pressure and material as specified herein or shown on the proposal. The pipe and accessories shall be new and unused. The interior of the pipe shall be thoroughly cleaned of foreign matter before being lowered into the trench and shall be kept clean during laying operations by plugging. The full length of each section of pipe shall rest upon the pipe bed with recessed excavation to accommodate bells and joints. Any pipe that has the grade or joint disturbed after laying, shall be taken up and re-laid.

Trench backfill shall be rough graded with ditch lines established and maintained within 500 feet for rural areas and 250 feet for urban areas for actual installation of main unless otherwise directed by the District. Individual roadways shall be completed (final grade established, preparation of the seed bed, and all concrete and asphalt restoration completed) prior to the start of additional roadways unless otherwise approved by the District. Temporary roadway and driveway access shall be maintained during construction.

Pipe shall not be laid in water or when trench or weather conditions are unsuitable for the work, except by permission from the District. When work is not in progress, open ends of pipe and fittings shall be plugged with a watertight plug. Any section of pipe found to be defective before and after laying shall be replaced with sound pipe without additional expense to the District. Fittings at bends in the pipe shall be firmly wedged with concrete block as indicated on the plans against the vertical face of the trench to prevent the fittings from being blown off the lines when under pressure.

SEWER MAIN SEPARATION. A 10' minimum lateral separation between water mains and sewers (defined as any sanitary/combined sewer, septic tank or subsoil treatment system) and sewer manholes, measured from the outside diameter to outside diameter, must be maintained. When a 10' separation is not practical then a variance may be obtained from DOW to maintain an 18" vertical and 18" lateral separation. No variances will be permitted for force mains.

SEWER MAIN CROSSING. Waterlines crossing under or over sewers lines (defined as any sanitary/combined sewer, septic tank or subsoil treatment system) must maintain a minimum vertical clearance of 18" and one full length of pipe shall be located so both joints are as far from the sewer as possible. Special Structural support for the water and sewer pipes may be required.

SEWER LATERALS. Sewer laterals (sewer lines that run between the sewer main and the house or other structure) are owned and maintained by the property owner. Since the sewer lateral is privately owned, locating these lines is very difficult. The Contractor is responsible for locating sewer laterals and shall use care when working near them. The Contractor shall be responsible for any and all damage to a sewer lateral in the area of their work. In the event of a sewer lateral is damaged, the contractor shall immediately notify Sanitation District #1 and follow all of their procedures for repair and inspection of the repair.

ORGANIC CONTAMINATION. Mains installed within 200 feet of petroleum tanks and other areas of organic contamination must be ductile iron pipe.

REDUCTION OF LEAD IN DRINKING WATER ACT. All material supplied and installed by the contractor after January 4, 2014 shall meet the applicable requirements of the Reduction of Lead in Drinking Water Act.

B. Hauling and Storage

The Contractor shall notify the District when pipe will be received on the job so that proper arrangements may be made for inspecting the unloading and stringing, as well as inspecting and examining the pipe materials.

The Contractor shall be required to deliver all equipment and other materials and place same as and where required for installation. Care must be exercised in the handling of all materials and equipment. The Contractor will be held responsible for all breakage or damage to same caused by his workman, agents, or appliances for handling and moving. Pipes and other castings shall in no case be thrown or dropped from cars, trucks, or

wagons to the ground, but same shall be lowered gently and not allowed to roll against or strike other castings and unyielding objects violently. Pipe and other castings may be unloaded, yarded, and distributed at places that will not interfere with other building operations as the Contractor may elect.

Valves, castings, and other materials shall be yarded or housed in same convenient location by the Contractor. The cost of all hauling, handling, and storage shall be included in the bid prices for this project. The District takes no risk or responsibility for fire, flood, theft, or damage until after final acceptance of work.

2. **WATER MAIN PIPE**

A. **Ductile Iron Pipe.** Ductile iron pipe shall meet the requirements of ANSI A21.51 (AWWA C151)

1. **Material.** The chemical constituents shall meet the physical property recommendations of ASTM A536 to ensure that the iron is suitable for satisfactory drilling and cutting.
2. **Minimum Thickness.** Unless otherwise shown on the plans, the minimum thickness of the barrel of the pipe shall be Class 50. All pipe shall be clearly marked as to class by the manufacturer.
3. **Coating and Lining.** The pipe shall be coated outside with a bituminous coating in accordance with ANSI A 21.51 (AWWA C151) and lined inside with cement mortar and seal coated in accordance with ANSI A21.4 (AWWA- C104).
4. **Fittings & Glands.** Fittings and glands shall be ductile iron as specified in Section 3A, "Ductile Iron Fittings".
5. **Polyethylene Encasement.** Ductile Iron Pipe shall be encased with Polyethylene film conforming to ANSI A21.5 (AWWA C105)
6. **Tracing Wire.** All pipe shall be installed with a 12 gauge solid copper (P.V.C coated) tracing wire taped to the top of the pipe every 5'. **Maximum** tracing wire length shall be 500' without terminating in a curb stop box. Water main installations that stop short of the permanent fire hydrant tee, the tracing wire shall be terminated in a curb stop box. Splices in the tracing wire shall be kept to minimum and approved by the District. If splices are required, they shall be made with copper split bolt (IlSCO #IK-8 or approved equal) and taped with electrical tape. Should the new pipe be fitted to an existing pipe without a tracing wire, the tracing wire shall be terminated in a curb stop box at the point where the transition is made. Curb stop boxes shall not be located in pavement.

B. **Polyvinyl Chloride Pipe** (P.V.C.). P.V.C. Pipe shall meet the requirements of AWWA C900 and as specified in the Work Order.

1. **Material.** P.V.C. pipe shall be made from class 12454-A or class 1245-B virgin compounds as defined in ASTM D1784. All compounds shall qualify for a rating of 4000 psi for water at 73.4 degree F. per the requirements of PPI TR3.

2. Minimum Pressure Class. Unless otherwise shown, the minimum pressure class of 150 psi, D.R. 18 shall be used. All pipe shall be clearly marked as to class by the manufacturer.
3. Beveled Spigot. Beveled spigot ends must have a minimum bevel of 8 degrees to a maximum bevel of 15 degrees. The vertical face of the spigot end may not exceed 75% of pipe wall thickness and the horizontal length of the bevel shall not exceed 1.25 inches. Field beveled spigot end shall be made per manufacturers recommendation and as approved by the District. The degree of bevel shall be approved for the type of pipe being installed.
4. P.V.C. Tracing Wire. All P.V.C. pipe shall be installed with a 12 gauge solid copper (P.V.C coated) tracing wire taped to the top of the pipe every 5'. Maximum tracing wire length shall be 500' without terminating in a curb stop box. Water main installations that stop short of the permanent fire hydrant tee, the tracing wire shall be terminated in a curb stop box. Splices in the tracing wire shall be kept to minimum and approved by the District. If splices are required, they shall be made with copper split bolt (Ilsco #IK-8 or approved equal) and taped with electrical tape. Curb stop boxes shall not be located in pavement.
5. Transition between D.I.P. and P.V.C. pipe shall be made with some type of ductile iron fitting.
6. P.V.C. Pipe Shipping, Handling & Storage. The front end of all pipe delivered by truck shall be covered for protection against exhaust fumes. P.V.C. pipe shall be protected from exposure to sunlight according to manufacturer's recommendations. Pipe will not be accepted for installation if discoloration is evident due to sunlight or other exposure. Pipe shall be stored in such a manner to prevent beaming the pipe.
7. Fittings & Glands. Fittings and glands shall be ductile iron as specified in Section 3A, "Ductile Iron Fittings". Ductile Iron Fittings shall be encased with Polyethylene film conforming to ANSI A21.5 (AWWA C105)

C. **Pipe Joints**

1. Push on and Mechanical. Push-on and mechanical joints including accessories shall conform to ANSI A21.11 (AWWA-C111). Bolts shall be high strength COR-10 tee head with hex nuts. The maximum deflection at push-on joints and/or mechanical joints shall be 5 degrees or as recommended by the Manufacturer. Spigot bell and joints shall conform to current AWWA Standards.
2. Flanged. Flanged joints shall meet the requirements of ANSI A21.15 (AWWA C115) or ANSI B16.1
 - a. Gaskets - All flanged joints shall be furnished with 1/16 inch thick full face red rubber.

- b. *Bolts* - Bolts shall have American Standard heavy unfinished hexagonal head and nut dimensions all as specified in ANSI B18.2. For bolts of 1-3/4 inches in diameter and larger, bolt studs with a nut on each end are recommended. Material for bolts and nuts shall conform to ASTM A307, Grade B.
3. Internal Restrained. If an internal restrained joint system is required on the plans, all pipes, bends, tees, etc. shall be restrained push-on joint pipe and fittings utilizing ductile iron components. Restrained joint pipe shall be ductile iron manufactured in accordance with the requirements of ANSI/AWWA C151/A21.51. Push-on joints for pipe shall be in accordance with ANSI/AWWA C111/A21.11 "Rubber-Gasket Joints for Ductile-Iron Pipe and Fittings." Pipe thickness shall be designed in accordance with ANSI/AWWA C150/A21.50 "Thickness Design of Ductile-Iron Pressure Pipe," and shall be based on laying conditions and internal pressures as stated in the project plans and specifications. All restrained joint pipe and fittings shall be boltless, flexible and capable of deflection after installation. Restrained joint pipe and fittings shall be U.S. Pipe's TR FLEX restrained joint system, American's Flex-Ring or pre-approved equal. Restraint of field cut pipe shall be provided with U.S. Pipe's TR FLEX GRIPPER® Ring, TR FLEX Pipe field weldments or pre-approved equal. Method of restraining and laying schedule shall be approved by the District prior to the start of the project. Manufacturer installation instructions shall be followed. Restrained joints shall be capable of withstanding a maximum joint pressure of 250 psi. unless otherwise noted.

Mechanical joints with retainer gland and Field Lok® gaskets are not acceptable unless otherwise specified (note: exception for valves).

4. Restrained. If a restrained joint system is required on the plans, all pipes, bends, tees, etc. shall be restrained with an approved system.
- a. The Field Lok®, Field Lok 350®, Fast-Grip®, or approved equal pipe gaskets shall develop a wedging action between pairs of high-strength stainless steel elements spaced around the gasket and shall meet the material requirements of ANSI/AWWA C111/A21.11. Restrained joints shall be capable of withstanding a maximum joint pressure of 250 psi. unless otherwise noted.
- b. The Megalug Series 1100®, MJ Field Lok® or approved equal restraint devices shall consist of multiple gripping wedges incorporated into a follower gland meeting the applicable requirements of ANSI/AWWA C110/A21.10. Gland body, wedges and wedge actuating components shall be cast from 65-45-12 ductile iron. The restraining system shall be rated in accordance with the performance requirements of ANSI/AWWA C111/A21.11 Rubber Gasket Joints for Ductile Iron Pressure Pipe and Fittings. Restrained joints shall be capable of withstanding a maximum joint pressure of 250 psi. unless otherwise noted.
5. Bonded Joints. Ductile Iron Joints and pipe fittings joints shall have approved type bonded joints. All joints shall be electrically bonded to provide electrical continuity across all joints of pipe: all fittings and specials, except where "insulated" flange joints are required or ordered.

- a. On pipe sizes up to and including 16-inch in diameter, one (1) "set" of bonding connectors shall be installed at the top of each pipe/fitting. On pipe sizes 24-inch and larger, two (2) "sets" of bonding connectors shall be installed, one (1) set each at twelve (12) inches clockwise and counterclockwise from the top of each pipe/fitting joint.

3. **FITTINGS**

- A. **Ductile Iron Fittings.** Ductile Iron Compact Fittings and accessories shall conform to AWWA C153 and Full Body Fittings - and accessories to AWWA C110. Bolts and nuts shall be high strength, corrosion resistant alloy, such as "Cor-Ten" or approved equal.

1. **Working Pressures.** All fittings and accessories shall be Ductile Iron, rated for a minimum of 250 psi working pressure or as specified herein. The fittings and accessories shall be new and unused. (NOTE: Certain areas of the District's service area require materials used, to be of a higher working pressure than 200 psi.)
2. **Coating and Lining.** The fittings shall be coated outside with a bituminous coating in accordance with ANSI A21.10 (AWWA C110) and lined inside with cement mortar and seal coated in accordance with ANSI A21.4 (AWWA C104).
3. **Fittings and Glands.** All pipe fittings shall be mechanical joint fittings unless specified elsewhere. Mechanical joints shall conform to AWWA C111.
4. **Polyethylene Encasement.** Ductile Iron Fittings shall be encased with polyethylene film conforming to ANSI A21.5 (AWWA C105)

- B. **Joints**

1. **Mechanical.** Mechanical joints including accessories shall conform to ANSI A21.11 (AWWA C111). Glands shall be ductile iron. Bolts shall be high strength COR-10 tee head with hex nuts.

4. **POLYETHYLENE WRAP**

All ductile iron pipe, fittings, valves, and fire hydrant leads shall be polyethylene wrapped, installed according to the current edition of AWWA C105. Ductile iron fittings, valves, and fire hydrant leads used in the installation of P.V.C. pipe shall be included.

- A. **Material.** Polyethylene wrap shall be 8-mil thickness low-density film or 4-mil thickness high-density cross-laminated polyethylene tube per AWWA C105 and shall be blue in color.
- B. **Color.** Polyethylene wrap shall be blue in color
- C. **Installation.** The contractor shall cut the roll in tubes 2 feet longer than a standard length of pipe. Each tube shall be slipped over the length of pipe, centering to allow a one foot overlap on each adjacent pipe section. After the lap is made, slack in the tubing shall be

taken up for a snug fit and the overlay shall be secured with polyethylene tape.

Pipe shall not be wrapped and stored on site for any period of time, but wrapped and immediately placed in the trench, fittings shall be wrapped prior to installing blocking or pads. (see Standard Drawing #104) Polyvinyl chloride pipe requires no wrap. Odd shaped appurtenances such as valves, tees, fittings, and other ferrous metal pipeline appurtenances shall be wrapped by using a flat sheet of polyethylene. Wrapping shall be done by placing the sheet under the appliances and bringing the edges together, folding twice, and taping down.

5. **FIRE HYDRANTS**

- A. **Description.** The Contractor shall provide all labor, materials, tools, and equipment required to furnish and install in good workmanlike manner all fire hydrants complete and ready for service where shown on the plans or where directed by the District and as specified herein.
- B. **Fire Hydrants.** Fire hydrants shall conform to AWWA C502. Hydrants shall conform to the Standards of the Northern Kentucky Water District and as shown on the plans. All fire hydrants shall have auxiliary valves for isolating water flow to the hydrant. All fire hydrants and auxiliary valves shall be positively locked to the water main by restrained joints, hydrant adapters, or other approved method. Hydrants shall be designed to 200 psi working pressure and shall be shop tested to 300 psi hydrostatic pressure with the main valve both open and closed. The barrel shall have a breakable safety section and/or base bolts just above the ground line.

Hydrants shall have a main valve opening of 5 1/4 inches, a 6 inch mechanical joint inlet to be suitable for setting in a trench 3' 6" deep minimum, and shall be the traffic style hydrant so that the main valve remains closed when the barrel is broken off. Hydrants shall have a dry top and shall be self draining, when the main valve is closed. Self draining hydrants shall drain to dry wells provided exclusively for that purpose. Hydrant drains shall not be connected to storm or sanitary sewers. Hydrants located generally in the Covington System and other areas determined by the District (flood zones) shall have all drain holes plugged prior to installation. Hydrants shall be rotatable in a minimum of eight (8) position in 360 degrees. All hydrants shall have two (2)- two and one half (2 1/2) inch hose nozzles and one (1) steamer or pumper connection threaded to conform to Northern Kentucky Water District Standards: steamer nozzle shall be National Standard Thread and 2 1/2" outlets shall be Northern Kentucky Water District Standard Thread (Old Cincinnati Thread). The operating nut and the nuts of the nozzle caps shall be square in shape, measuring one (1) inch from side to side. Hydrant body shall be painted yellow for areas designed for 150 psi working pressure and red for areas in excess of 150 psi.

All hydrants shall be right hand open, clockwise, except in certain areas of Campbell Co. as specified in Standard Drawings and shall have a direction arrow of operation cast into the dome of the hydrant. Installation per Standard Drawing #109.

- C. **Installation.** The installation of fire hydrants shall be in conformance with "Mains Installation" section, paragraph "Setting Hydrants".

- D. **Polyethylene Encasement.** Fire hydrant tee, anchoring pipe and part of the fire hydrant shoe shall be encased with Polyethylene film conforming to ANSI A21.5 (AWWA C105). (See Standard Drawing #109)

6. **VALVES**

- A. **Description.** The Contractor shall provide all labor, materials, tools, and equipment required to furnish and install in good workmanlike manner all valves and accessories complete and ready for service where shown on the plans or where directed by the District and as specified herein.
- B. **Gate Valves.** Gate valves shall conform to AWWA C509 or C515 and shall be ductile body, resilient wedge, non-rising stem with rubber "O" ring packing seals. All external dome and packing bolts shall be stainless steel. The valves shall open by turning counter-clockwise. All valves shall have openings through the body of the same circular area as that of the pipe to which they are attached. Valves shall have mechanical joint ends unless otherwise shown on the plans or directed by the District. All valves shall be designed for a working pressure of 250 pounds per square inch (PSI) unless otherwise noted on the plans or in the "Supplemental Specifications". An extension stem shall be furnished if required, to bring the operating nut within 3-1/2 feet of finished grade. Extension stems shall be securely fastened to the valve stem. The Contractor shall make all valves tight under their working pressures after they have been placed and before the main is placed in operation.
- C. **Tapping Sleeves and Valves.** Tapping sleeves and valves shall be designed for a working pressure of 250 psi. The tapping sleeve together with the tapping valve shall be tested at 250 psi for visible leakage and pressure drop before the main is tapped. Tapping sleeve and valve used in high pressure areas shall be tested at 350 psi.
1. **Tapping Sleeves.** Tapping sleeves shall be two piece with mechanical joint type ends, and be so designed as to assure uniform gasket pressure and permit centering of the sleeve on the pipe.
 2. **Tapping Valves.** Tapping valves shall have a flange on one end for bolting to the tapping sleeve and a mechanical joint type end connection on the outlet with slotted standard flange or other adapters for connection to the tapping machine. All external dome, flange and packing bolts shall be stainless steel. The valves shall open by turning counterclockwise. Tapping valves shall conform to AWWA C509.
- D. **Valve Boxes.** All valves shall be provided with valve boxes. Valve boxes shall be of standard, adjustable, heavy duty cast iron extension type, two piece, 5 1/4 inch shaft, screw type, and of such length as necessary to extend from valve to finished grade, Tyler #562-S, Tyler #564-S or approved equal. Valve box cover shall be stamped "Water". Tops shall be set at final established grade.
- E. **Butterfly Valves.** Unless otherwise specified valves 16 inches and larger shall be butterfly valves rated at 250 psi working pressure and conform to the applicable portions

of AWWA Standard C504, latest edition.

1. Body. The valves shall be AWWA Class 250B designed for tight shut-off against a differential pressure of 250 psi. Valve bodies shall be constructed of ductile iron. Two trunnions for shaft bearing shall be integral with the valve body. The valves and appurtenances shall be suitable for buried service.
 2. Ends. Valves shall have mechanical joint ends and shall be furnished with high strength COR-10 tee head with hex nuts, ductile iron glands, and rubber gaskets for each mechanical joint end.
 3. Discs. Valve discs of cast steel, fabricated steel, or cast bronze are not acceptable.
 4. Seats. Seats bonded on the discs are not acceptable.
 5. Shaft Seals. If stuffing boxes are utilized for shaft seals they shall be constructed of cast iron, ASTM A126. Gland assemblies shall be of cast bronze, ASTM B132. The packing gland shall be housed in a solid walled cast iron, ASTM A48, Class 40 one piece structure or equal.
 6. Operators. The valve operating mechanism shall be for counterclockwise opening. There shall be no external moving parts on valve or operator except the operator input shaft. Input shaft is to be operated by a 2 inch square operating nut. Maximum required input force on the operator shaft to open and close the valve shall be 40 pounds. The total number of turns applied to the operating nut required to completely open the valve from a completely closed position shall not be less than twice the normal valve diameter. An extension stem shall be furnished to bring the operating nut within 3 1/2 feet of the finished grade. Extension stems shall be securely fastened to the valve stem.
- F. **Air Release and Vacuum Valves**. Air release valves shall be constructed at high points in the water line as indicated on the plans. These valves shall permit the air in the pipeline to escape as the pipeline fills and allows the air to re-enter as the line empties. The air relief vent of automatic air release valves, where practical, may be extended to a distance of at least 1 foot above the grade and installed with a screened, downward facing elbow. Manually operated air release valves shall include a camlock-type coupling and waste valve. These valves shall be APCO Air Release Valves Model #200-A or approved equal, 250 psi working pressure. 8" and smaller water mains, tap size and piping shall be 3/4", 12" water main - 1", & 16" and larger water main - 2". Temporary taps of suitable size may be required at certain points on the water main for the release of air for filling and/or flushing purposes. Temporary taps will be removed and plugged after use. Refer to Standard Drawing #106 for reference. Materials for air release valves will be supplied by the District.

7. **STEEL CASING PIPE**

Casing pipe shall be steel pipe with a minimum yield strength of 35,000 psi with a minimum wall thickness as listed below:

Nominal Diameter Casing Pipe	Normal Wall Thickness	Nominal Diameter Casing Pipe	Normal Wall Thickness
Under 14'	0.251"	26"	0.438"
14" & 16"	0.282"	28" & 30"	0.469"
18"	0.313"	32"	0.501"
20"	0.344"	34" & 36"	0.532"
22"	0.375"	38", 40", & 42"	0.563"
24"	0.407"	48"	0.626"

The inside diameter of the casing pipe shall be at least four (4) inches greater than the outside diameter of the carrier pipe joints. Steel casing sections shall be connected by welding, conforming to AWWA C206.

Adequate manufactured pipe spacers shall be installed to ensure that the carrier pipe is adequately supported in the center of the casing pipe throughout it's length, particularly at the ends. There shall not be any metallic contact between the casing and carrier pipe. Manufactured pipe spacers shall be installed per manufacture's installation requirements. Casings shall have both ends sealed up in such a way as to prevent the entrance of foreign material. See Standard Drawing #114 for installation details.

8. **PIPE, VALVE, HYDRANT PRESSURE REGULATOR PIT AND METER SETTING INSTALLATION**

- A. **Pipe Laying.** Pipe shall be laid with bell ends facing in the direction of laying, unless otherwise directed by the District. After placing a length of pipe in the trench the spigot end shall be centered in the bell and the pipe forced home. All pipe shall be laid with ends abutting and true to line and grade. Deflection of pipe joints in excess of the manufacturer's recommendations will not be permitted. A watertight pipe plug or bulkhead shall be provided and used to prevent the entrance of foreign material whenever pipe laying operations are not in progress.
- B. **Pipe Cutting.** The cutting of pipe for installing valves, fittings, or hydrants shall be done in a neat and workmanlike manner without damage to the pipe or lining. The end shall be smooth and at right angles to the axis of the pipe. Flame cutting of metal pipe by means of an oxyacetylene torch shall not be permitted. All pipe cutting shall be at the Contractor's expense.
- C. **Push-On Joints.** The surfaces with which the rubber gasket comes in contact shall be thoroughly cleaned just prior to assembly. The gasket shall then be inserted into the groove in the bell. Before starting joint assembly, a liberal coating of special lubricant shall be applied to the spigot end. (Special lubricant shall be suitable for use in potable water) With the spigot end centered in the bell, the spigot end is pushed home. Insertion of spigot into PCV type pipe bell should be inserted until the reference mark is flush with the end of the bell. Over insertion of the pipe is not recommended per the manufacturer.

- D. **Mechanical Joints.** Mechanical joints for pipe require that the spigot be centrally located in the bell. The surfaces with which the rubber gasket comes in contact shall be thoroughly cleaned just prior to assembly. The clean surfaces shall be brushed with a special lubricant just prior to slipping the gasket over the spigot end and into the bell. (Special lubricant shall be suitable for use in potable water) The lubricant shall also be brushed over the gasket prior to installation to remove the loose dirt and lubricate the gasket as it is forced into its retaining space. P.V.C. pipe spigot ends shall be field cut smooth and at right angles to the axis of the pipe for installation in mechanical joint fittings. Bolt torque shall be per the manufacturer's recommendations.
- E. **Setting Valves.** Valves shall be set on a firm solid concrete block foundation so that no load will be transferred to the connecting pipe. Valves in water mains shall, where possible, be located on the street property lines extended, unless otherwise shown on the plans. A valve box shall be provided for every valve. The valve box shall not transmit shock or stress to the valve and shall be centered and plumb over the operating nut of the valve. The box cover shall be set flush with the surface of the finished pavement unless otherwise shown. All valves boxes with the exception of isolating valves for fire hydrants that are located in non-paved areas shall have a minimum of 2' by 2' by 4" concrete pad as shown in Standard Drawing No. 105, unless a smaller pad is approved by the District.
- F. **Setting Hydrants.** Hydrants shall be located as shown on the plans or as directed by the District. The location shall provide complete accessibility and minimize the possibility of damage from vehicles or injury to pedestrians. All hydrants shall stand plumb with the pumper nozzle facing the curb. Hydrant shall be set to the established grade, with the traffic flange within 4" above final grade in accordance to Standard Drawing No. 109. Each hydrant shall be controlled by an independent gate valve with valve box. All valves used for hydrant control shall be anchored to the branch tee.
- G. **Thrust Blocking.** All bends over five (5) degrees, plugs, caps, and tees shall be securely blocked against movement with concrete thrust blocks placed against undisturbed earth in accordance with Standard Drawing No. 104. All thrust blocks shall be inspected and approved by the District prior to backfilling. Water mains shall have concrete thrust block at all pipe intersections and changes of direction to resist forces acting on the pipeline. All concrete thrust blocks shall be poured in such a manner that the bolts can be replaced without disturbing the blocking.

All caps or plugs used in mains to undergo hydrostatic test shall be properly installed and blocked in advance of testing mains. All caps or plug installations shall be approved by the District representative before the main is subjected to the pressure test.

1. **Concrete Blocking.** Concrete blocking shall be K.D.O.T. Class A concrete as specified in Section "Concrete". Blocking shall be placed between undisturbed ground and the fitting to be anchored. The area of bearing on the fitting and on the ground in each instance shall be that shown herein. The blocking shall, unless otherwise shown, be so placed that the pipe and fitting joints will be accessible for repair.
2. **Tie Rods.** If shown or specified, movement shall be prevented by attaching suitable

metal rods, clamps or restrained fittings. Steel tie rods or clamps, where permitted, shall be of adequate strength to prevent movement. Steel tie rods or clamps shall be painted with three coats of approved bituminous paint or coal tar enamel. A minimum of 3/4" welded eyebolts @ a 90 degree bend and 3/4" threaded rods may only be used with the approval of the District for temporary restraint only. Duc-Lucs are prohibited for use.

3. Restrained Fittings. Restrained fittings, where permitted, shall be subject to the approval of the District.

H. **Meter Setting Installation**

The Contractor shall furnish all labor, equipment, excavation, backfill, testing, disinfection, and restoration to install the pipe at the locations shown on the plans or as directed, in accordance with the District's Standard Specifications & Drawings, complete and ready for use. No additional payment will be made for rock excavation or for bedding required in rock excavation. It will be the Contractors responsibility to remove and reset the service at his own expense if he fails to notify and receive the approval from the District. Contractors work shall be warranted for a period of one year of the date of activation of each service (meter set date).

1. Inspection & Notification. The Contractor shall notify all affected District customers prior to interrupting water service. The Contractor shall make 48 hours notification. Routine service inspection and final inspections will be made by the District upon request by the Contractor and in a timely manner. The Contractor shall provide the District 24 hours notification for inspection by the District. It is the Contractors responsibility to post "No Parking" signs and safety devices.
2. Materials. The District shall furnish to the Contractor the materials necessary to install the meter setting and water service lines. This shall include: Lid & ring, meter vault, piping, yoke bar, double yoke bar, angle valve, yoke ell, couplings, corporation, tapping saddle, extension ring.

The Contractor shall be responsible for pickup of materials at the District's designated location. The Contractor will be responsible to the District for materials lost, stolen, or damaged while in his possession. The Contractor shall return all unused materials, which includes scrap copper and fittings to the District. Salvaged materials are the property of the District and shall be returned to the District. The materials necessary to do restoration will not be provided under this contract item but shall be obtained from a pre-approved source.

3. Installation of Service Lines. The Contractor shall be familiar with copper piping, fittings and connections, and have available equipment to work with said materials. No sweat type fittings shall be permitted. Service line shall be installed as shown on the plans or as directed by the District. The Contractor shall excavate whatever material encountered. The service lines shall be installed using boring and jacking or open cut (as specified on the plans) at the depth required to clear existing and proposed sewers, but in no case shall the line be installed with less than 36 inches cover from final grade.

The trench width shall be as excavated to a maximum of 2 feet. The line shall be laid on firm soil. In rock, sufficient extra depth shall be excavated and refilled with acceptable compacted soil or bedding sand to provide a cushion for the elimination of the possibility of crushing or perforating the pipe. Connections shall be made using normal practices for water line installation and in accordance with the standards in the plans or contained herein.

- a. *Water Service Taps* – The Contractor shall maintain a minimum of 36" cover over any tap. Tapping Saddles shall not be used with ductile iron or cast iron pipe. The corporation installed into the main shall have no more than 4 threads showing between the top of the water and the bottom of the corporation unless a tapping saddle is used.
- b. *Service Lines* - The Contractor shall maintain a constant cover of 36" over any water line. Methods of pushing or jacking under the existing street must avoid bending or kinking the pipe. No open cuts of the pavement will be permitted unless pre-approved by the District. All copper shall be cut using a copper-tubing cutter. All connections shall be flared connections. No oil base or other contaminating materials will be used in lubricants, caulking and sealers. The Contractor shall be responsible for making all joints watertight.
- c. *Meter Vaults* - All meter vaults shall be located inside existing right-of-ways or water main easements of record or as directed by the District. Typically the meter vault shall sit 5' behind the back edge of curb or edge of pavement. The Contractor shall contact the customer and determine a suitable location of the setting within the above guidelines. It is the Contractor's responsibility to notify the District's Inspector if these conditions cannot be met. The District's Inspector will inspect any questionable meter setting location prior to the Contractor installing.

Meter vaults shall be set to allow the meter cover to be level with the back edge of the existing curb or the back edge of paving along roadways without curbs. It is the Contractor's responsibility to ensure that the meter vault does not settle due to poor compaction or any other reason within the Contractor's control. The Contractor at no additional expense to the District shall adjust any meter vault that sinks below grade due to poor workmanship by the Contractor to grade.

9. **TRENCH BACKFILL**

All trench backfill shall be free from cinders, refuse, organic material, boulders, rocks or other material which in the opinion of the District is unsuitable. No backfill shall be made with frozen material. Lime sand shall not be used for any backfill.

- A. **Backfill in Non-Pavement Areas.** Trench backfill in areas not directly beneath or near pavements and driveways shall be as specified in this section unless the local authority having jurisdiction or the District stipulates additional requirements.

1. **Trench Bottom Preparation.** The pipe shall be bedded on sand to achieve full pipe

barrel support. In any event not less than 3" of sand bedding shall be used.

2. Backfill to 12" Over Pipe Barrel. All trench excavations shall be backfilled immediately after pipe is laid with the exception of thrust blocks. Compacted sand or bankrun material shall be used to backfill the trench from the bottom of the pipe barrel to the 12" over the pipe barrel. Backfill material shall be free from cinders, refuse, organic material, boulders, top soil, frozen material, material with a high void content, rocks 1 1/2" or larger measured in any direction, sharp stones and crushed rocks larger than 3/4", or other materials which in the opinion of the District is unsuitable. No flushing of backfill shall be permitted to achieve compaction. Clay bulkheads shall be installed as specified in Section B-5 of Trench Backfill.
3. Remaining Trench Backfill. From 12" above the pipe barrel to the surface, excavated trench material may be used as backfill material or as required by local or county authorities. No material shall be used for backfill that contains frozen earth, vegetable or organic material, debris, rocks 8" or larger measured in any direction, or earth with an exceptionally high void content.
4. Compaction. All backfill shall be placed in uniform loose layers, not to exceed 12" layers, and each layer shall be compacted to a density not less than 95 percent of the standard Proctor maximum dry density (ASTM D698) unless additional requirements are required by the local authority having jurisdiction. The backfill shall be compacted in such a manner and with appropriate equipment so that there is no pipe damage, pipe misalignment or damage to joints. No flushing of backfill shall be permitted to achieve compaction.

B. Backfill Beneath Driveways. Trench backfill beneath and within five (5) feet of driveways shall be as specified in this section.

1. Trench Bottom Preparation. The pipe shall be bedded on sand to achieve full pipe barrel support. In any event not less than 3" of sand bedding shall be used.
2. Backfill to 12" Over Pipe Barrel. All trench excavations shall be backfilled immediately after pipe is laid with the exception of thrust blocks. Compacted sand or bankrun material shall be used to backfill the trench from the bottom of the pipe barrel to the 12" over the pipe barrel. Backfill material shall be free from cinders, refuse, organic material, boulders, top soil, frozen material, material with a high void content, rocks 1 1/2" or larger measured in any direction, sharp stones and crushed rocks larger than 3/4", or other materials which in the opinion of the District is unsuitable. No flushing of backfill shall be permitted to achieve compaction. Clay bulkheads shall be installed as specified in Section B-5 of Trench Backfill.
3. Granular Backfill. When backfilling under pavements, driveways, or as directed by the District, granular material as specified shall be used in place of the excavated material. The granular backfill shall be placed from 12 inches from the top of pipe to 6 inches below pavement subgrade level in uniform 6 inch loose layers and each layer shall be compacted to a density not less than 95 percent of the standard Proctor maximum dry density (ASTM D698). The backfill shall be compacted in such a manner and with

appropriate equipment so that there is no pipe damage, pipe misalignment or damage to joints. No flushing of backfill shall be permitted to achieve compaction.

4. Trench Backfill to Subgrade. The top 6 inches of the trench backfill, immediately below pavement subgrade level, shall be crushed limestone or dense grade aggregate compacted in the same manner and to the same density at the granular backfill.
 5. Remaining Trench Backfill to Final Grade. From subgrade to final grade, asphalt, concrete or other paving/surface shall be placed to match the existing pavement/surface conditions.
 6. Bulkheads. When a granular bedding is provided in rock or when granular backfill is required, the Contractor shall place bulkheads of clay soil across the trench at 100 foot intervals to resist the movement of groundwater through the granular material. Such bulkheads shall be carefully compacted and shall extend approximately 3 feet in a direction parallel to the pipe and shall extend from the bottom of the trench to a point 4" below final grade level.
 7. Surface Conditions. The trench surface shall be periodically attended to during the course of the contract. The trench surface shall be maintained in a safe condition and shall not interfere with natural drainage.
- C. **Backfill Beneath Pavement.** Trench backfill beneath roadway pavements, or as directed by the District shall include flowable fill as specified in this section.
1. Backfill to 12 Inches Over pipe Barrel. The pipe shall be bedded on sand so that the pipe barrel has full and continuous support. All trench excavations shall be backfilled immediately after pipe is laid. Compacted sand or bankrun shall be used to backfill the trench from the bottom of the pipe barrel to 12 inches above the top of the pipe barrel. The sand or bankrun shall be placed in uniform 6 inch loose layers and each layer compacted to a density not less than 95 percent of the standard Proctor maximum dry density (ASTM D698) in such a manner and with appropriate equipment so that there is no pipe damage, pipe misalignment or damage to joints so as to eliminate the possibility of settlement, pipe misalignment, or damage to joints. The sand or bankrun shall be free from cinders, refuse, organic material, boulders, rocks, or other material which in the opinion of the District is unsuitable. No backfill shall be made with frozen material.
 2. Trench Backfill to Subgrade. From 12 inches above the pipe barrel to subgrade, "**Low Strength Mortar Backfill Material**" (Flowable Fill, K-Crete) shall be used as backfill material. The Low Strength Mortar Mix shall meet the current Ky. Dept. of Highways's "Standard Specifications for Road & Bridge Construction". The Low Strength Mortar Mix shall have sufficient drying time (per manufacturer's recommendation) before the final layer of backfill is applied.
 3. Remaining Trench Backfill to Final Grade. From subgrade to final grade, asphalt, concrete or other paving/surface shall be placed to match the existing pavement/surface conditions. All joints shall be properly seal with an approved

material.

4. Testing of Trench Backfill. Testing of backfill shall be at the request of the District and to the specifications of the District and at the cost of the Contractor.

10. **TEMPORARY STREET & ROADWAY RESTORATION**

- A. **Traffic-Bound Base Course.** For all trenches where replacing streets and/or driveways is required, the Contractor shall maintain at his own expense a traffic- bound course of a minimum of 6" traffic-bound gravel and 4" of temporary hot asphalt or cold patch asphalt when hot mix is not available in a safe and passable condition until the trenches are ready for final resurfacing. The traffic-bound base course shall be compacted to a density not less than 95 percent of the standard Proctor maximum dry density (ASTM D698).
- B. **Maintenance of Temporary Street Restoration** Temporary street restoration areas shall be maintained in a safe condition at all times. There shall be no loose materials, depressions, drop-offs or any other deficiencies in the temporary pavement. If said deficiencies exist they shall be immediately corrected by the Contractor.

11. **FINAL RESTORATION OF STREET & ROADWAYS**

- A. **Scope.** This section covers the restoration of concrete and asphaltic concrete pavement, driveways, sidewalks and other surface construction removed or damaged during the progress of the work.
- B. **General.** Except as otherwise specified, indicated on the drawings, or covered with other surface treatments, all pavement, driveways, curbs/gutters, and sidewalks which are removed or damaged during the progress of the work shall be restored to its original or better condition by the Contractor. All restoration work shall be subject to acceptance by the property owner, agency having jurisdiction thereof, and the District. Unless otherwise specified, all material used for restoration work shall be new.

At least five days in advance of pavement and curbs/gutter replacement, the Contractor shall notify the District and the authority having jurisdiction thereof of the proposed work. All street work shall be subject to acceptance by the authority having jurisdiction thereof.

Crushed limestone, bituminous materials or other materials used in the resurfacing of streets, shall meet the current requirements of the Standard Specifications of the Kentucky Department of Highways.

Sub-grades shall be thoroughly compacted to at least 95 percent of maximum density at optimum moisture content as determined by ASTM D698. In addition, the stability of sub-grades shall be such that when materials for construction are deposited on the sub-grade no rutting or displacement of the subgrade by material hauling vehicles will occur.

Governing Standards. Except as otherwise specified or indicated, materials, equipment, details, and construction methods shall comply with the applicable provisions of the local, county and state ordinances and regulations. Requirements for surface restoration and

materials specified herein are the minimum requirements for compliance with the Contract Documents. If requirements of the authority having jurisdiction over surface restoration are greater than those presented herein, Contractor shall comply with those requirements at no additional cost to the District.

Weather Limitations. Minimum temperature under which asphaltic concrete pavements may be constructed shall be as stipulated in the governing standards.

If weather conditions do not permit replacement of permanent surfacing, a temporary cold mix asphaltic concrete surfacing shall be provided and maintained in a smooth and driveable condition. Cold mix material shall be replaced with the specified hot mix asphaltic concrete when weather conditions permit. No materials shall be placed when the underlying surface is muddy, frozen, or has frost or water thereon.

Equipment and facilities for measuring, mixing, heating, transporting, spreading, compacting, and other operations shall be in accordance with the applicable requirements of the governing standards. Improved or modernized equipment which will produce results equal in quality to those which would result from the specified equipment will be considered for use. All equipment and facilities shall be acceptable to the District.

- C. **Materials.** The sources of materials shall be submitted for review by the District. Except as modified herein, materials shall conform to the requirements of the Kentucky Department of Transportation standards.

Contractor shall submit to District for approval documentation certifying materials to be used for surface restoration are in compliance with the requirements herein.

- D. **Asphaltic Concrete Pavement.** Except as modified herein, existing asphaltic concrete pavement which is removed or damaged during the progress of the work shall be replaced with new pavement to match, as closely as possible, the adjacent existing pavement.

Asphaltic concrete pavements shall be constructed as specified, and in accordance with the Kentucky Department of Transportation standards.

Finished surfaces shall match existing surfaces as appropriate.

Bituminous mixtures shall be spread and finished by hand methods only where machine methods are impractical as determined by the District. Hand placed mixtures shall not be cast or otherwise manipulated in such manner that segregation occurs.

Each lift of the base course shall be uniformly compacted to a density of not less than 94 percent as determined by ASTM D2950. The surface course shall be uniformly compacted to a density of not less than 96 percent as determined by ASTM D2950.

Where asphaltic concrete pavement is to be replaced, the subgrade shall be prepared as herein before specified and this subgrade shall comprise the base course upon which the concrete sub-slab and/or bituminous pavement shall be laid.

Where no concrete sub-slab is required, the subgrade or base shall be thoroughly cleaned and broomed and a prime coat of medium tar (RC-3) shall be uniformly applied at a rate of 0.20 to 0.25 gallons per square yard. Where Portland cement concrete sub-slab is required the prime shall be applied at the rate of approximately .05 gallons per square yard. The prime shall be applied by a pressure distributor or other approved pressure spray method.

When the prime coat has become tacky but not dry and hard, a bituminous surfacing consisting of class "I" asphaltic concrete shall be placed, spread, finished and compacted in accordance with the current Standard Specifications of the Kentucky Department of Highways. Compacted thickness of asphaltic concrete pavement shall be as directed or as shown on the plans. All asphaltic concrete joints shall be properly seal with an approved material in accordance with the current Standard Specifications of the Kentucky Department of Highways (hot-poured elastic joint sealer).

- E. **Concrete Pavement.** Existing concrete pavements which are removed or damaged during the progress of the work shall be replaced to match, as closely as possible, the adjacent existing concrete pavement. Concrete, materials, and workmanship shall conform to the applicable requirements of the concrete section.

Where concrete pavement is to be replaced or is required under bituminous pavement replacement, it shall conform to the existing pavement and/or the District's instructions , (not less than 6' (six inches) thick) and accomplished with K.D.O.T. Class "A" concrete. Concrete curbs shall conform to existing concrete curbs. All joints shall be properly sealed with an approved material.

If concrete is removed to within 2 feet or less of an existing construction joint, the additional pavement to the joint shall be removed and replaced with new concrete.

- F. **Aggregate Base Course.** Aggregate base course shall be used as a base, where required by the governing regulations. The base course shall be constructed in accordance with the governing standards. Mixing of the base course shall be by the central plant method or the road mix method.
- G. **Protection.** The Contractor shall protect all adjacent concrete and masonry so that no damage will occur as the result of subsequent construction operations. All damage or discoloration shall be repaired to the satisfaction of the District.

Special care shall be taken to prevent bituminous materials from spraying or splashing. Adjacent construction shall be protected by covering with suitable fabric or paper.

- H. **Miscellaneous Repair Work.** All existing items and construction, whether or not indicated by the drawings but which are removed or damaged as a result of construction operations under this contract, whether within or outside of public right-of-way, shall be repaired or replaced unless otherwise required by the drawings.

Repair or replacement shall be with material similar to those existing and shall, in each

case, restore the item to its original or better condition as acceptable to the District and the District thereof.

Mailboxes repaired or replaced as part of the project shall be installed at a height of 41 to 42 inches measured from the pavement surface to the bottom of the box. The front face of the mailbox shall be 6 to 8 inches behind the edge of the pavement.

- I. **Untreated Surface.** Where the existing surface is untreated gravel or stone, the Contractor shall replace the surfacing that is disturbed or removed with crushed limestone to at least the thickness of the existing pavement. The crushed limestone shall be placed and compacted in the same manner as traffic-bound base course. Prior to the final acceptance, the Contractor shall fill all depressions with compacted crushed limestone, and shall thoroughly compact and grade to match existing surface.

12. **CLEAN UP**

After a section of main is tested and accepted, the ground surface shall be cleaned of all surplus material including stone, broken pipe, construction material, and all other debris, to the satisfaction of the District.

13. **STORAGE AND DISPOSAL OF EXCAVATED MATERIAL**

Where the Contractor finds it necessary to remove excavated material to some other location, care should be taken not to overload trucks, which would in turn spill material out upon highways. Any such material spilled upon highways shall be immediately cleaned up from the location and disposed of.

Where it is necessary and is agreeable with public and private property owners, excavated materials may be temporarily piled in the streets or roadways, however, one lane of traffic must be maintained at all times. By no means will the Contractor be permitted to store excavated materials in streets or roadways over night.

All excavated material and all construction materials used in prosecution of the work shall be deposited so as not to endanger the Work, create unnecessary annoyance to the public, or interfere with natural drainage courses. During the progress of the work, all material piles shall be kept trimmed up and maintained in a neat, workmanlike manner.

After excavated materials have been removed, all hard surface streets or roadways shall be thoroughly cleaned and left free of dirt and dust. Streets or roadways which do not have hard surfaces must be restored to their original condition at the expense of the Contractor.

Disposal of excess excavated material from trench excavations or site restoration shall be disposed from the site at the Contractor's expense. Broken concrete and other debris resulting from pavement or sidewalk removal, excavated rock in excess of the amount permitted to be installed in trench backfill, debris encountered in excavation work, and other similar waste materials shall be disposed from the site at the Contractor's expense. The Contractor shall be responsible for procurement of its own dump sites, and

maintaining that site at its own expense.

Confirm and comply with all applicable environmental, labor, health and safety, and all other Laws and Regulations related to demolition, removal, hauling, disposal and all other handling of unsalvageable equipment, supplies, waste, debris and other material.

14. **TRENCH MAINTENANCE**

The Contractor shall be responsible for the condition of the trenches for a period of two years from the date of the "Certificate of Substantial Completion" issuance.

15. **RESTORATION, GRADING AND SEEDING**

The Contractor shall provide all labor, materials, tools, and equipment required to grade, fertilize, seed, and mulch in good, workmanlike manner the areas where shown on the plans or where directed by the District and as specified herein.

A. **Materials**

1. **Topsoil.** Topsoil shall not contain more than 40% clay in that portion passing a No.10 sieve and shall contain not less than 5% or more than 20% organic matter as determined by loss on ignition of samples oven dried to constant weight at 212 degrees Fahrenheit.

2. **Fertilizer.** Fertilizer shall be lawn or turf grade 12-12-12.

3. **Seed**

a. *Urban Areas* - All areas to be seeded which are considered to be urban in character, and any area in front of a residence, business or commercial, shall be seeded with the following mixture: (% are by weight)

40% Fine Lawn Turf-Type Fescue
40% Creeping Red Fescue (*Festuca rubra*)
20% Annual Ryegrass (*Lolium multiflorum*)

b. *Right-of-way and Easements* - All areas in right-of way or in easements adjacent to right-of-away other than urban areas, shall be seeded with the following mixture: (% are by weight)

30% Fine Lawn Turf-Type Fescue
50% Kentucky 31 Fescue (*Festuca arundinaces* Var. Ky.31.)
20% Annual Ryegrass (*Lolium multiflorum*)

c. *All Other Areas* - All other areas shall be seeded with the following mixture: (% are by weight)

90% Perennial Ryegrass (*Lolium perenne*)
10% Alsike Clover (*Trifolium hybridum*)

4. **Mulch.** Mulch shall be straw reasonably free of weed seed and any foreign materials

which may affect plant growth. Other materials may be used if approved by the District.

5. Asphalt Emulsion. Emulsion shall be nontoxic to plants and shall conform to AASHTO M140 or AASHTO M208.

B. **Installation**

1. **Preparation of Seed Bed**

- a. *Topsoil* - If suitable topsoil is available as part of the excavated material it shall be removed, stored and used to backfill the top 4 inches of the excavation. All grass, weeds, roots, sticks, stones, and other debris are to be removed and the topsoil carefully brought to the finish grade by **hand raking**.
 - b. *Non-topsoil* - If there is no suitable topsoil available on any part of the work or if there is a deficiency of suitable topsoil, the trench backfill, except in urban areas shall be used as a seed bed. After the backfill has been given a reasonable time to settle, it shall be graded off to the finish grade and harrowed to a depth of 3 inches. All grass, weeds, roots, sticks, stones, and other debris are to be removed and the soil carefully brought to the finish grade by **hand raking**.
 - c. *Urban Areas* - If there is no topsoil available on any part of the work or is there is a deficiency of suitable topsoil, the Contractor shall furnish 4 inches of topsoil to be used as a seed bed in all urban areas and any area in front of a residence.
2. Fertilizing. Fertilizing shall be uniformly applied to all areas to be seeded at the rate of 1 pound per 100 square feet in topsoil or 2 pounds per 100 square feet in non-topsoil. The fertilizer shall be thoroughly disked, harrowed or raked into the soil to a depth of not less than 2 inches. Immediately before sowing the seed, the Contractor shall rework the surface until it is a fine, pulverized, smooth seed bed, varying not more than 1 inch in 10 feet.
 3. Seeding. Immediately after the preparation and fertilization of the seed bed the District shall inspect and approve the site prior to seeding. The seed shall be thoroughly mixed and then evenly sown over the prepared areas at the rate of 3 pounds per 1000 square feet for urban, right-of-way and easement areas and a rate of 2 pounds per 1000 square feet for all other areas. Seed shall be sown dry or hydraulically. After sowing, the area shall be raked, dragged, or otherwise treated to cover the seed to a depth of approximately 1/4 inch.
 4. Mulching. Within 48 hours after any given area is seeded, mulching material shall be evenly placed over all seeded areas at the rate of approximately 2 tons per acre, when seeding is performed between the dates of March 15 and October 15, and at the approximate rate of 3 tons per acre when seeding is performed between the dates of October 15 and March 15 of the succeeding year.

- a. *Emulsion* - Mulching materials shall be kept in place with asphalt emulsion applied at a minimum rate of 60 gallons per ton of mulch or by methods as approved or may be otherwise required to prevent displacement of material. Mulching which is displaced shall be replaced at once but only after the seeding or other work which preceded the mulching and which work was damaged as a result of displacement of mulching material has been acceptably repaired.

5. Maintenance. All seeded areas shall be carefully maintained and tended by the Contractor, watering as necessary to secure a good turf. Settled areas shall be filled, graded, and re-seeded. Seeded areas shall be free of weeds and other debris. The Contractor shall be responsible for the condition of the seeded areas for a period of 1 year from the date of "Final Certificate" issuance.

- C. Payment. Seeding is not a pay item and all cost related thereto shall be included in the unit price of the applicable bid item.

16. DISINFECTION AND LEAKAGE TEST

- A. Scope. This section covers the disinfection of the new water mains, fittings, temporary services and associated appurtenances. The Contractor shall provide all labor, materials, tools, equipment, and incidentals required to test the mains for watertightness and disinfect the mains as directed by the District and as specified herein. Gauges for the test shall be furnished by the Contractor.
- B. Test Section. After the main has been installed and backfilled all newly installed pipe or any valved section thereof shall be considered a test section.
- C. Witness. All tests performed for each test section shall be witnessed and approved by the District before acceptance. In the event the Contractor performs any test without witness by the District, the Contractor will be required to test the section again in conformance with this specification at no cost to the District.
- D. General. All disinfection work shall conform to the requirements of the latest revision of ANSI/AWWA C651 and the requirements of the Kentucky Division of Water. If any State requirements conflict with the provisions of this section, the State requirements shall govern.

Water required for flushing and disinfection work will be provided as stipulated in the temporary facilities.

When it is necessary to interrupt service to water customers, each customer affected shall be notified in advance of the proposed service interruption and its probable duration in accordance with the project requirements.

- E. Disinfection Procedure. During construction or after the installation of the pipe and fittings is complete, an approved disinfection method, according to governing standards, shall be used. The disinfection solution shall be allowed to stand in the main and associated appurtenances for a period of at least twenty-four (24) hours.

During disinfection, all valves, hydrants, and service line connections shall be operated to ensure that all appurtenances are disinfected. Valves shall be manipulated in such a manner that the strong disinfection solution in the main from flowing back into the supply line. Check valves shall be used if required.

All non-disinfected fittings used for tie-ins or repairs shall be cleaned and swabbed with a liquid sodium hypochlorite disinfecting solution prior to installation.

- F. **Final Flushing.** Upon completion of chlorination but before sampling and bacteriological testing, Contractor shall remove all heavily chlorinated water from the main and temporary services by flushing with potable water at the maximum velocity which can be developed under the direction and control of the District.

The Contractor shall properly neutralize and dispose of the chlorinated water and flushing water in accordance with all applicable regulations. Contractor shall obtain all special waste disposal permits necessary.

- G. **Disposal of Heavily Chlorinated Water.** Disposal of chlorinated water will be in accordance with 401 KAR5:031. Coliform samples must be taken at connection points to existing mains, 1 mile intervals along new mains, and at all dead ends. Contractor shall apply a de-chlorinating agent to the water to be wasted to neutralize thoroughly the chlorine residual remaining in the water. (See the following table for neutralizing chemicals.) Federal, state, and local regulatory agencies should be contacted to determine special provisions for disposal of heavily chlorinated water.

Chlorine residual of water being disposed of shall be de-chlorinated by treating with one of the chemicals listed in the following table:

Pounds of Chemicals Required to De-chlorinate Various Residual Chlorine Concentrations in 100,000 Gallons of Water*

Residual Chlorine Concentration <i>mg/L</i>	Sulfur Dioxide (SO ₂)	Sodium Bisulfate (NaHSO ₃)	Sodium Sulfite (Na ₂ SO ₃)	Sodium Thiosulfate (Na ₂ S ₂ O ₃ @5H ₂ O)
1	0.8	1.2	1.4	1.2
2	1.7	2.5	2.9	2.4
10	8.3	12.5	14.6	12.0
50	41.7	62.6	73.0	60.0

* Except for residual chlorine concentration, all amounts are in pounds.

The Contractor shall provide all necessary materials, equipment and labor for applying the de-chlorinating chemical in a manner such that proper mixing and contact time of the chemical and the heavily chlorinated water is obtained for complete removal of chlorine

being flushed. The Contractor shall periodically test the flush water to verify that the chlorine residual is zero.

- H. **Chlorine Residual Tests.** Upon completion of final flushing, the District will perform chlorine residual tests to ensure the chlorine residual in the main and temporary services is not higher than that generally prevailing in the remainder of the water distribution system and is acceptable to the District.
- I. **Bacteriological Tests.** Sampling and testing of water in the main and temporary services will be performed by the District after final flushing. A standard plate count will be made by the District for each sample.
- J. **Redisinfection.** Should the bacteriological tests indicate the presence of coliform organisms at any sampling point, the main and temporary services shall be re-flushed, re-sampled, and re-tested. If check samples show the presence of coliform organisms, the main and temporary services shall be re-chlorinated at no additional cost to the District until results acceptable to the District are obtained.

Re-disinfection shall be completed by the continuous feed or by the slug method. Unless otherwise permitted, the chlorination agent shall be injected into the main and temporary services at the supply end through a corporation cock installed in the top of the pipe. All materials, equipment and labor necessary for the re-disinfection shall be supplied by Contractor at no additional cost to the District.

- K. **Hydrostatic Testing.** Hydrostatic Testing will be in accordance with AWWA C600. The water main being tested shall have all air expelled by additional flushing or installation of taps on high points in the line. The pressure of the water main shall be gradually increased to obtain a minimum pressure of 100 psi over the design pressure (250 psi minimum) at the lowest elevation point of the water main or as directed by the District. The test will be for a two (2) hour duration and will not vary by more than 5 psi. All tests performed for each test section shall be witnessed and approved by a representative of the District, in the event any test is performed without a representative of the District, the Contractor shall be required to test the section again. Leakage is defined as the amount of water used to maintain the test pressure.

17. **APPLICABLE SPECIFICATIONS & STANDARDS**

The following current specifications and standards form a part of these Specifications:

- A. **American Water Works Association (AWWA) Standards**
- B. **Northern Kentucky Water District Standard Specifications & Drawing for the Installation of Water Mains** current edition located at www.nkywater.org
- C. **"Manual of Accident Prevention in Construction"** published by the **Associated General contractors of America**
- D. **Kentucky Occupational Safety and Health Administration's "Kentucky Occupational Safety and Health Standards for General Industry"** current edition.
- E. **American National Standards Institute (ANSI)**
- F. **American Society for Testing & Materials (ASTM)**

- G. **Kentucky Division of Water Quality**
- H. **“Recommended Standards for Water Works”** current edition



EXHIBIT A-7

PLANS PREPARED AND DIGITALLY SIGNED BY A P.E.

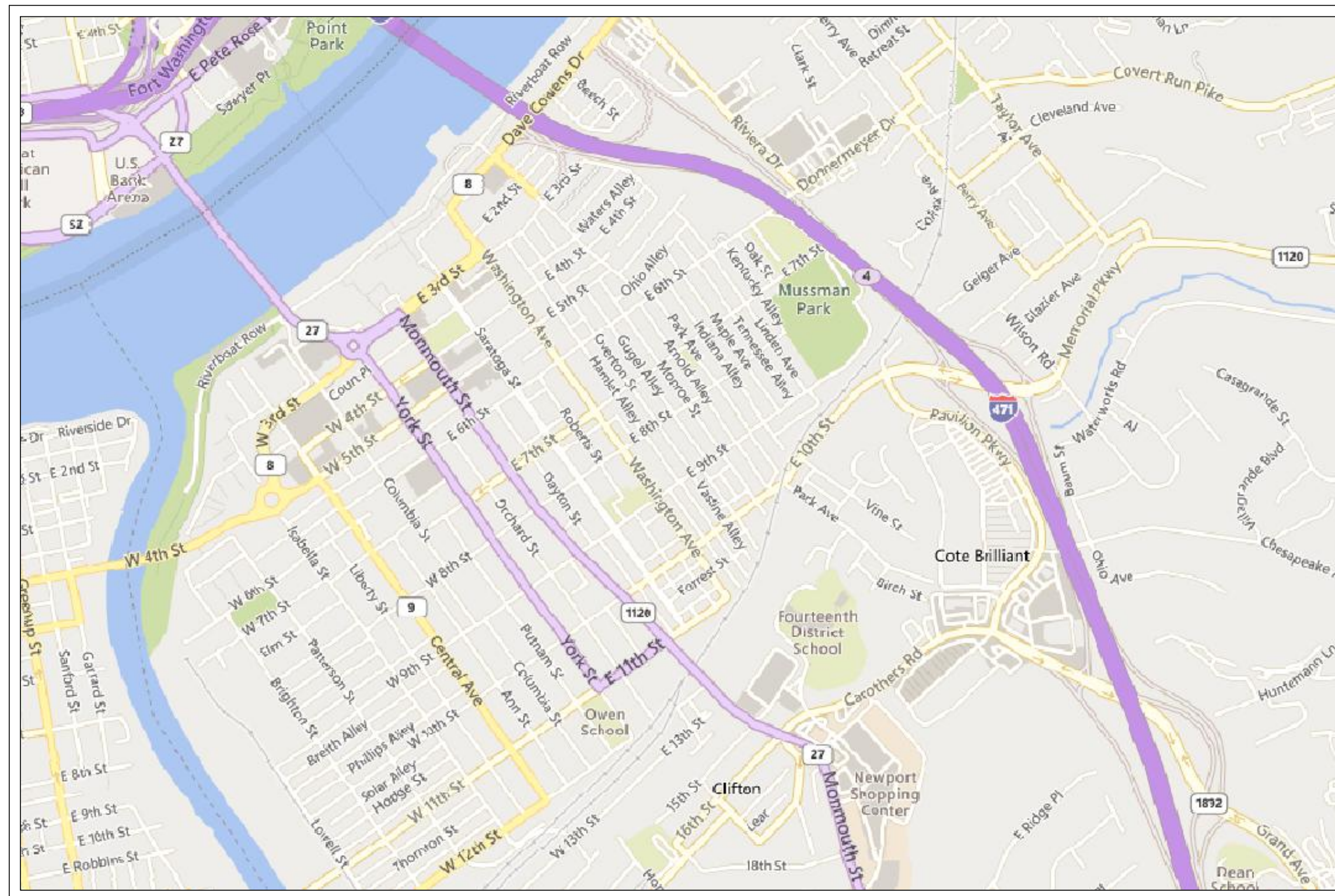


NEWPORT WMR – PHASE 3

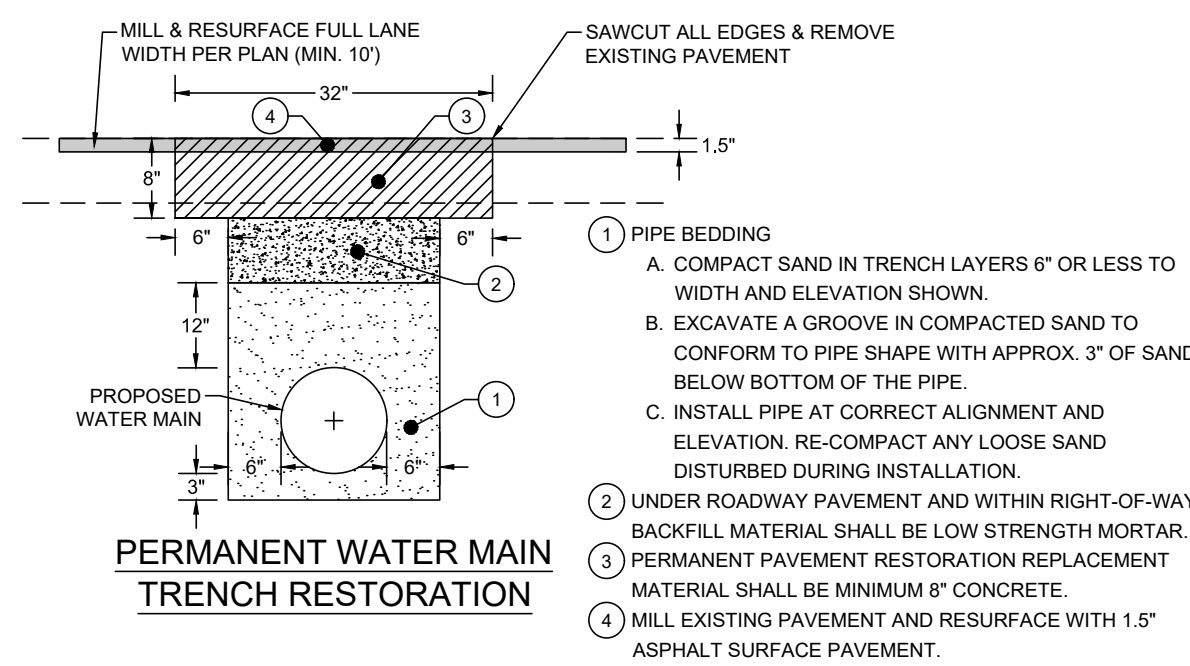
**NORTHERN KENTUCKY WATER DISTRICT
CITY OF NEWPORT
CAMPBELL COUNTY, KENTUCKY
JUNE 2024**

1. CONTRACTOR TO COORDINATE WITH THE CITY OF NEWPORT FOR ALL REQUIRED TRAFFIC CONTROLS AND DETOURS.
2. ALL WORK IN ROADS OR DRIVES SHALL BE PLATED OR BACKFILLED WITH GRANULAR MATERIAL AT THE END OF EACH WORK DAY AND OPENED TO TRAFFIC OR ACCESS DURING NON-WORKING HOURS. IF DRIVES OR WALKS CANNOT BE OPENED, THEY MUST BE PROPERLY BARRICADED.
3. CONTRACTOR TO MAINTAIN EMERGENCY TRAFFIC AT ALL TIMES DURING CONSTRUCTION.
4. ALL CONSTRUCTION ACTIVITIES AND EQUIPMENT, INCLUDING CLEARING OF TREES AND VEGETATION, SHALL BE CONTAINED WITHIN THE DESIGNATED CONSTRUCTION LIMITS. STORAGE AND STAGING MAY BE ALLOWED OUTSIDE PERMANENT EASEMENTS WITH PRIOR APPROVAL BY OWNER.
5. FENCING, WALLS, AND MAILBOXES THAT ARE TAKEN DOWN DURING CONSTRUCTION SHALL BE RESTORED IN KIND. THE COST TO DO SO SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
6. CONTRACTOR SHALL NOTE THAT ALL UTILITY SERVICE CONNECTIONS AND CROSSINGS ARE NOT SHOWN. CONTRACTOR TO COORDINATE WITH UTILITIES TO FIELD LOCATE PRIOR TO CONSTRUCTION TO PROTECT FROM DAMAGE AND RELOCATE AS NECESSARY TO ACCOMMODATE THE NEW WATER MAIN.

⊖ - Ex Sanitary M.H.	⊖ - Ex Elec. Box
⊖ - Ex Sanitary Clean Out	⊖ - Ex Light Pole
⊖ - Ex Storm M.H.	+ - Yard Light
■ - Ex Storm Catch Basin	⊖ - Ex Utility Pole
⊖ - Ex Storm Yard Drain	⊖ - Ex Guy Wire
+ - Ex Storm Down Spout	⊖ - Ex Guy Pole
⊖ - Ex Fire Hydrant	⊖ - Ex Transformer
⊖ - Ex Water Valve	⊖ - Air Conditioning
■ - Ex Water Meter	+ - Sign
⊖ - Ex Fire Connection	+ - Post
⊖ - Ex Gas Valve	⊖ - Ex Bollard
⊖ - Ex Gas Meter	+ - Ex Flag Pole
⊖ - Ex Gas Marker	← - Ex Traffic Flow
⊖ - Ex Tele. Box	⊖ - Ex Deciduous Tree
⊖ - Ex Unidentified M.H.	⊖ - Ex Evergreen Tree
○ Found Iron Pin (cap as noted)	⊖ Set Benchmark
⊖ Found Iron Pipe	□ Found Conc. Man.
△ Found MAG Nail	✕ Found Cross Notch
	* Found Misc.



AREA MAP
1" = 1000 FT



SHEET	DRAWING TITLE	ISSUE DATE	REV. NO.	REV. DATE
C1.0	TITLE SHEET	06-11-24		
C2.0	WATER MAIN NOTES AND DETAILS	06-11-24		
C3.0 - C3.1	PHASE 3 OVERVIEW	06-11-24		
C4.0 - C4.2	EAST 3rd STREET PLAN & PROFILE	06-11-24		
C5.0 - C5.1	EAST 5th STREET PLAN & PROFILE	06-11-24		
C6.0 - C6.2	EAST 7th STREET PLAN & PROFILE	06-11-24		
C7.0 - C7.2	ROBERTS STREET PLAN & PROFILE	06-11-24		
C8.0	OAK STREET PLAN & PROFILE	06-11-24		
C9.0 - C9.3	LINDEN AVENUE PLAN & PROFILE	06-11-24		

ENGINEER
BAYER BECKER
209 GRANDVIEW DRIVE
FORT MITCHELL, KENTUCKY 41017

OWNER
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
ERLANGER, KENTUCKY 41018




THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN HAVE BEEN OBTAINED BY FIELD CHECKS AND INFORMATION PROVIDED BY THE UTILITY COMPANIES. IT IS BELIEVED THAT THEY ARE CORRECT BUT THE PREPARER DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS. THEREFORE, ALL UNDERGROUND UTILITIES SHALL BE FIELD LOCATED PRIOR TO CONSTRUCTION. FOR MORE INFORMATION USE NUMBER SHOWN.

NEWPORT WATER MAIN REPLACEMENT - PHASE 3

**CITY OF NEWPORT
CAMPBELL COUNTY, KENTUCKY**

TITLE



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www.bayerbecker.com
209 Grandview Drive
Fort Mitchell, KY 41017 - 859.261.1113

Drawing: 22-0151 TS

Drawn by: JMH

Checked By:	TRA
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Issue Date: 02-23-2024

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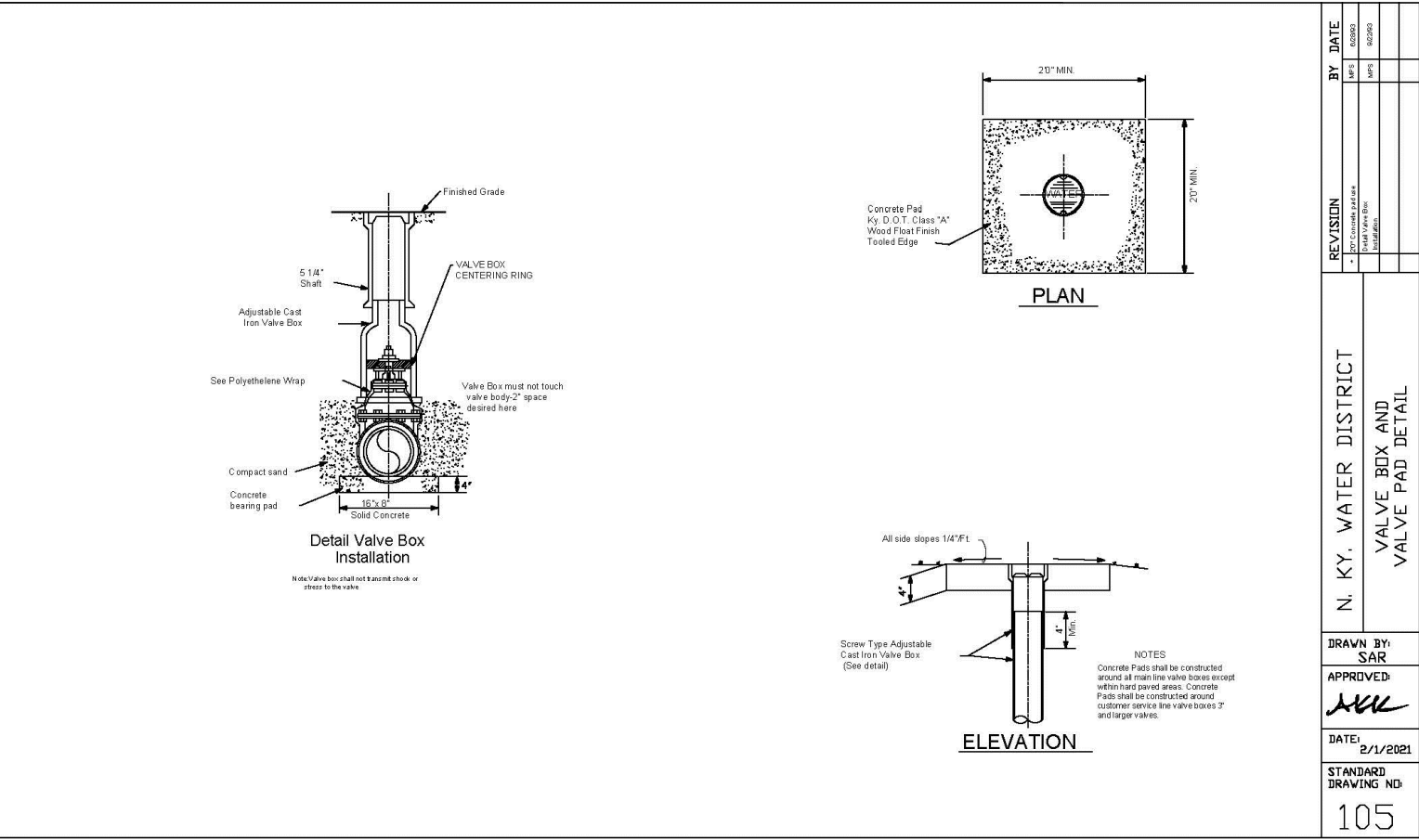
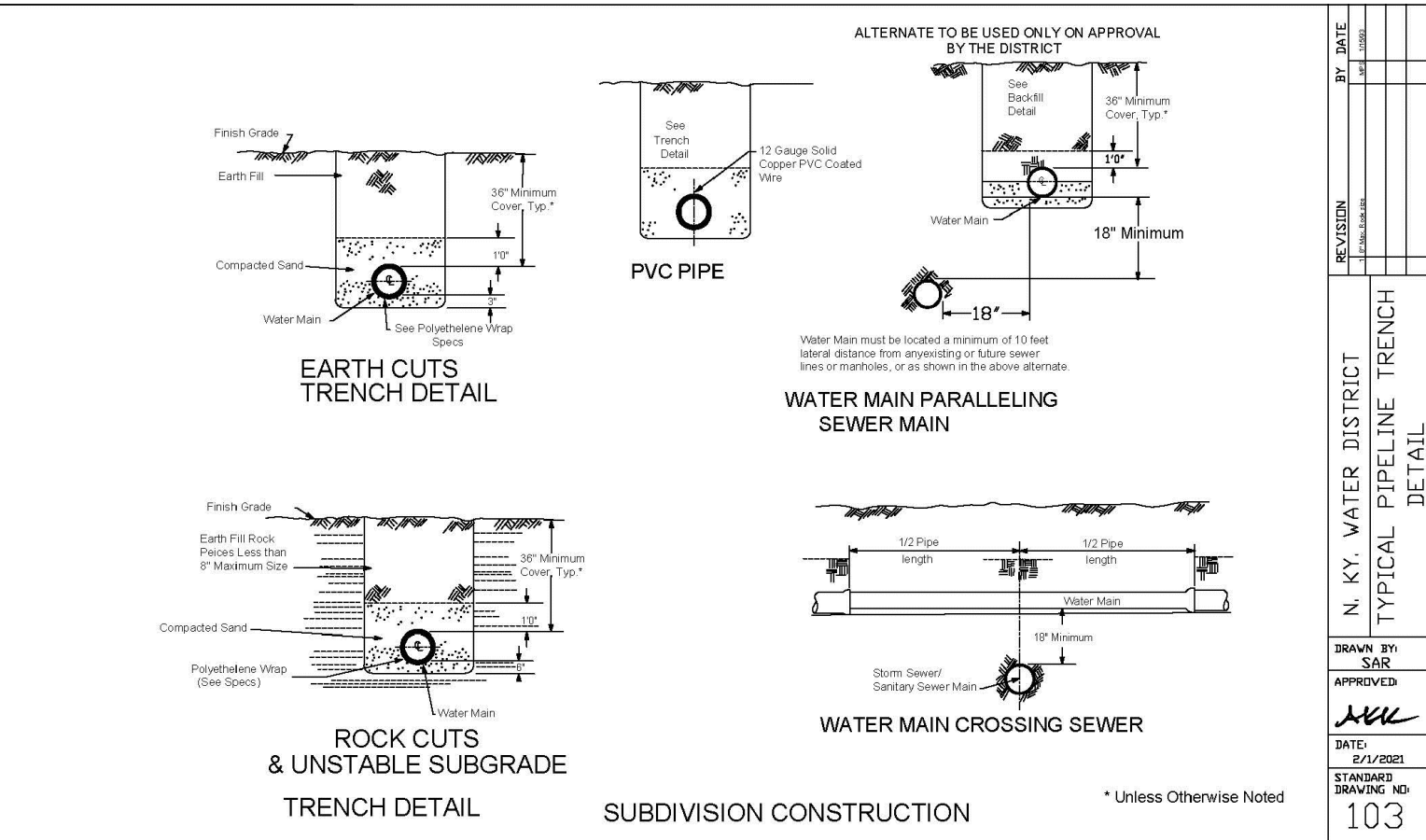
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WATER MAIN CONSTRUCTION NOTES:

- 1.) The contractor must submit documentation of similar experience to the Northern Kentucky Water District (NKWD) for their approval for consideration of the bid. The contractor will schedule a preconstruction meeting with the NKWD prior to starting construction.
- 2.) Prior to starting construction of the main, the contractor shall expose the existing main at the tie-in points at the ends of the project and at the intersecting streets for verification by NKWD.
- 3.) The shutdown period for transfer to the new main will be coordinated with NKWD.
- 4.) The existing water mains shall remain in service at all times during construction. The contractor shall obtain approval and coordinate all temporary disconnections of service, shut downs, transfers to the new main, and taps of the water main with the NKWD. Every reasonable effort shall be made to provide water service at all times during construction.
- 5.) All water main construction shall conform to the latest edition of the NKWD Standard Specifications and Drawings for the installation of water mains.
- 6.) All water main shall be C-900 PVC push on joint pipe (DR 18, pressure class 150) AWWA C-900 with tracing wire and DIP Class 50 push on joint pipe with polyethylene wrap and tracing wire as noted on the plans.
- 7.) Maximum deflection at pipe joints shall be per manufacturer's specifications but not to exceed five degrees (5°) for 6", 8", and 12" water mains and three degrees (3°) for 16" water mains.
- 8.) All fittings, bends, valves, and fire hydrant leads shall be ductile iron with polyethylene wrap.
- 9.) All thrust blocking shall be constructed per the NKWD Standard Specifications and Drawings.
- 10.) Trenching, bedding, and backfilling shall be completed per the NKWD Standard Specifications and Drawings with low strength mortar backfill required in pavement limits and within 2' of the edge of pavement.
- 11.) Concrete for drives, sidewalks, curbs, and pavement shall be KDOT 601 Class AA, $f_c' = 4000$ psi, 28-day compressive strength mix. Concrete for pavement replacement areas shall be a minimum 8" thick.
- 12.) Expansion material shall be $\frac{3}{4}$ " thick and installed at the following:
A.) At all concrete pavement, drives, curbs, walks, etc.,
B.) At all fixed objects (i.e. - utility covers, valves, manholes, etc.)
C.) At all rigid structures (i.e. - drives, curbs, steps, etc.)
- 13.) Asphalt surface mixture for pavement replacement areas shall be 2" depth per Kentucky Transportation Cabinet Spec. 403. Tack coat and edge sealing shall be provided at all sawcuts and joints.
- 14.) Contractor to provide sufficient signs, warning lights, barricades, or other necessary devices to maintain traffic at all times per the Manual on Uniform Traffic Control Devices (MUTCD). Every reasonable effort shall be made to keep all roads open at all times and written approval is required for any proposed closure. Residents should also be provided access to their drives at all times and in the event of driveway reconstruction, the homeowner shall be notified and on street parking shall be provided.
- 15.) All disturbed areas are to be restored (seeded and mulched) by the contractor and shall proceed with job progression. The contractor shall also be responsible for removing any excess materials at the site and shall maintain all seeded and mulched areas until project completion and final inspection. A residential yard shall be restored within thirty (30) days after construction.
- 16.) All trenches shall be properly secured and barricaded during construction and at the end of each construction day.
- 17.) All O.S.H.A., state, and local safety regulations shall be followed during construction of this project.
- 18.) All water main shall have a minimum 42" of cover for 6", 8", 12", and 16" unless otherwise shown or noted on the plans.
- 19.) The proposed water main profile has been provided in these plans. The price of all fittings, valves, hydrants, etc. shall include all required extensions for proper finish elevation.
- 20.) The location of the existing utilities shown are approximate. All utilities should be field marked & their location (horizontal and vertical) be verified prior to construction.
- 21.) The cover on all existing water mains are assumed to be 3' to the top of the main. The depths of all mains at crossovers, etc. shall be field verified. Lower water main under utilities as required.
- 22.) Water mains crossing sewers shall be laid to provide a vertical distance of 18 inches between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the water main joints will be equidistant and as far as possible from the sewer joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to prevent damage to the water main.
- 23.) Water mains shall be laid at least 10' horizontally from any existing or proposed sewer. The distance shall be measured edge to edge.
- 24.) Please contact the design engineer before making any deviations greater than reasonable construction tolerances from the plans or specifications.
- 25.) The contractor shall be responsible for abandoning the existing main upon installation of and transfer of water service to the new water main. The contractor shall also remove and abandon all existing valve boxes, covers and assemblies and fire hydrants and backfill with low strength mortar at the direction of the NKWD. Cost is incidental to the contract and no additional payment will be made.
- 26.) The details shown on this page are for information purposes only. Refer to the latest edition of the NKWD Standard Specifications and Drawings for the Installation of Water Mains for the most current details and notes.
- 27.) All applicable recommendations in Kentucky's Best Management Practices Manual shall be followed by the contractor, including inlet protection and seeding of disturbed ground.
- 28.) The contractor shall limit their work area to the rights-of-way and easements as shown on these plans unless written permission is given by the property owner an approved by the NKWD.

UTILITIES:

- 1.) The Contractor shall verify the locations and elevations of all existing utilities prior to construction. The locations and elevations of existing utilities, as indicated on the drawings, are for informational purposes only. No responsibility is assumed for the accuracy or completeness of this information. All utilities must be marked and their horizontal and vertical location field verified by the Contractor prior to starting construction. The Contractor shall not cut or disconnect any existing utilities without prior approval from the appropriate agency.
- 2.) During construction the contractor shall protect from damage all existing utilities, whether shown on the contract drawings or not. If damage is caused, the contractor shall be responsible for the repair or restoration of same to the satisfaction of the Owner or Utility Owner at the contractor's sole expense. Electric service, gas service, water service, telephone and cable service, and other utility lines may be located in the proximity of the work area. The Contractor shall be responsible for:
- Contacting the individual utility owners ten (10) days prior to construction and advising them of the work to take place.
 - Soliciting their aid in locating and protecting or relocating any utility that may interfere with construction.
 - Test piling and verifying the horizontal and vertical location for each utility in the project vicinity before starting construction.
 - All damage to any existing utility, and repair thereof.
 - Contacting the Kentucky Underground Protection Inc. (KUPI 1-800-752-6007) 48 hours minimum prior to construction.
 - Contractor shall perform all work necessary to restore all existing utilities whether shown or not, encountered or disturbed during construction to before construction conditions or better, as acceptable to the utility owner.
- 3.) Where potential elevation conflicts may occur with existing utilities, the Contractor shall uncover such utilities sufficiently in advance of construction in order that exact elevations may be determined and the necessary adjustment made. The cost of the location and adjustment work, if any, shall be included in the total cost for the project. No additional payment will be made.
- 4.) Adjustments to line and grade of the new piping or existing utilities shall be made by the Contractor to avoid conflicts with the existing utilities and new piping.
- Any adjustments in line of the new piping shall be at the Contractor's sole expense. No additional payment will be made.
 - Adjustments in depth of 24.0-inches or less necessary for the new pipeline or existing utilities because of utility or grade conflicts shall be installed as directed by the Owner's representative. All Costs for this work shall be included in the Contractor's Bid. No additional costs will be paid by the Owner.



UTILITIES (cont'd):

- 5.) The following are known owners of utilities in the project area, and shall be notified 48 hours prior to construction to field-locate said utilities:

GAS AND ELECTRIC
Duke Energy
Elec: Matt Coleman (513) 458-3843
Gas: Scott Pfefferman (513) 315-4593
2010 Dana Avenue - EF 324
Cincinnati, OH 45207

CABLE TV
Spectrum
Chris Gapiński
10920 Kenwood Road
Blue Ash, OH 45242
(513) 384-1541

SANITARY SEWER
Sanitation District No. 1
Andy Aman (859) 578-6880
1045 Eaton Drive
Fort Wright, KY 41017

TELEPHONE
Altifiber
Overhead: Jeff Beierlein (513) 314-3411
Underground: Jodi Geiman (513) 240-6600
201 E. Fourth Street, Bldg. 343
Cincinnati, OH 45202

WATER
Northern Kentucky Water District
2835 Crescent Springs Road
P.O. Box 18640
Erlanger, KY 41018
(859) 426-2718

STORM WATER
Sanitation District No. 1
Jason Burlage (859) 578-6892
1045 Eaton Drive
Fort Wright, KY 41017

- 6.) Contractor shall be responsible for coordinating support or temporary relocation of all existing overhead utilities affected by the proposed construction.

- Where pole or anchors that support overhead electric facilities are exposed or otherwise interfered with, the contractor shall coordinate with the utility to protect them from damage and provide temporary support to insure the integrity of the system. As soon as feasible, the contractor shall take additional appropriate steps to provide permanent measures to restore support. The methods used shall be based on conditions to be determined by the utility.
- Where the depth of excavation for the proposed work is greater than 5 feet, the contractor shall sheet and shore the trench and coordinate with the utility to continuously maintain the support of electric facilities at location where the electric facilities are within the zone of influence adjacent to the excavation as determined by the natural angle of the repose of the soil.
- All damage to electric facilities and services requiring adjustments, relocations and/or repairs will be made at the contractor's cost.

Contractor shall not backfill exposed electric facilities until the company has inspected its facility or performed any adjustments and/or maintenance that may be required.

PAVING:

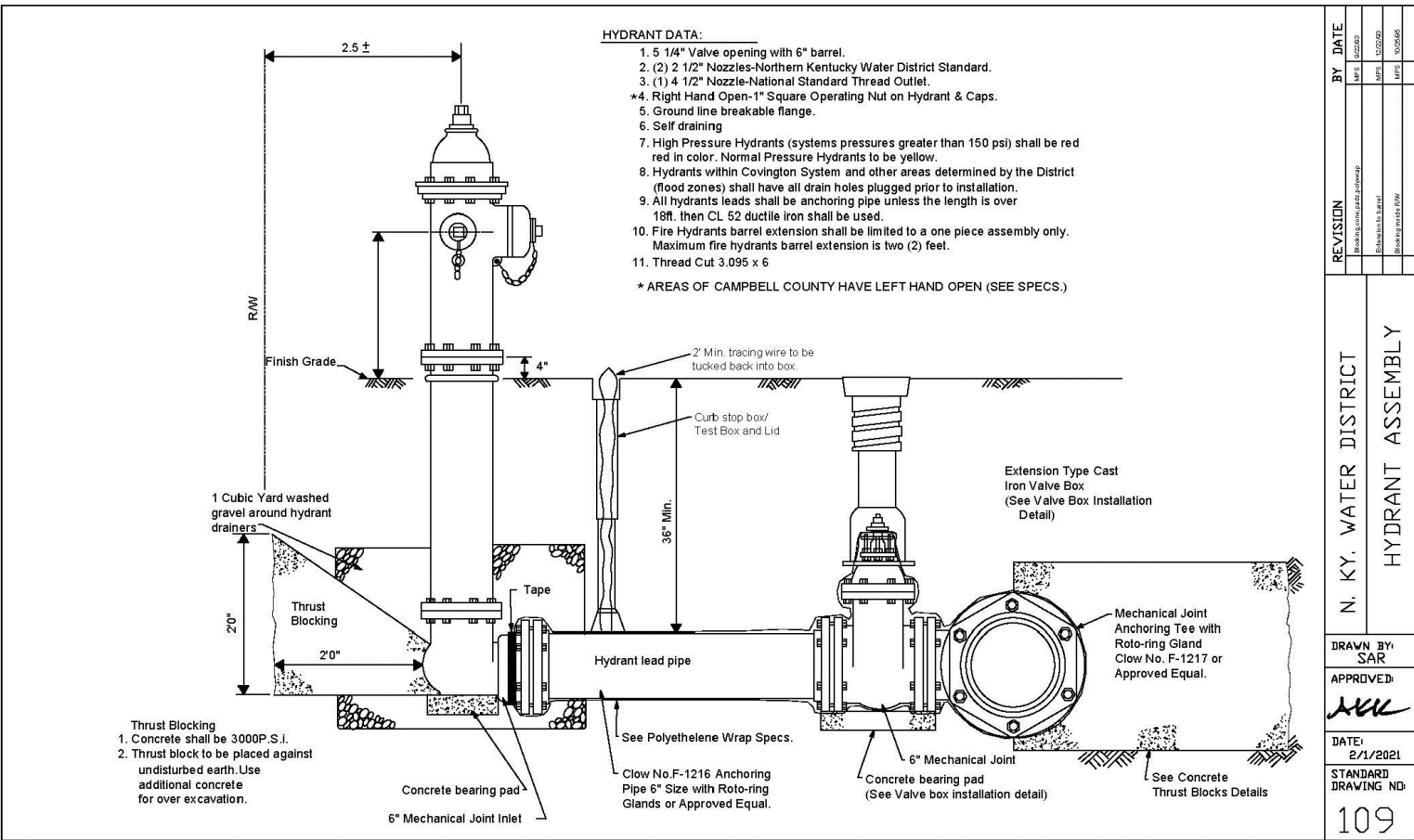
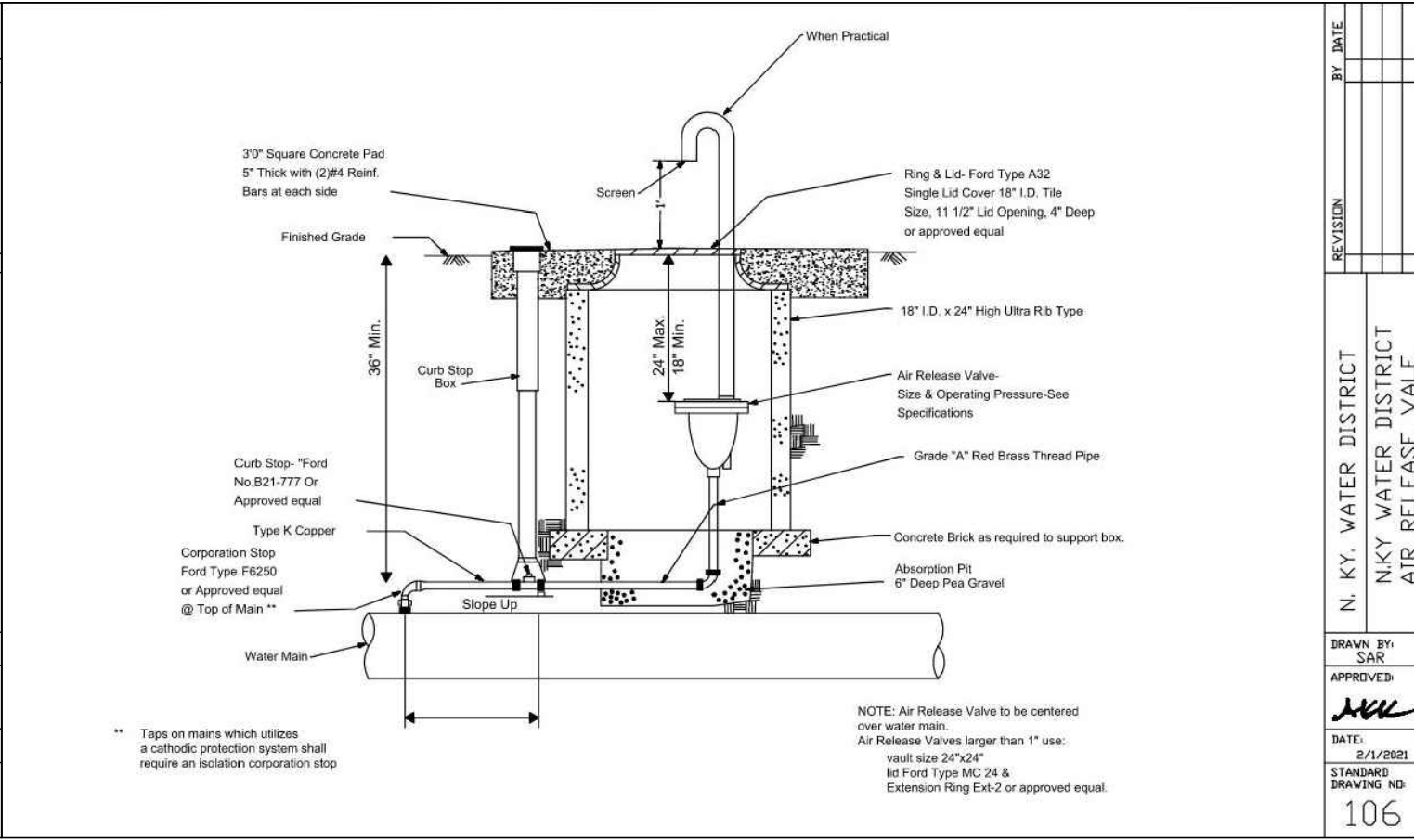
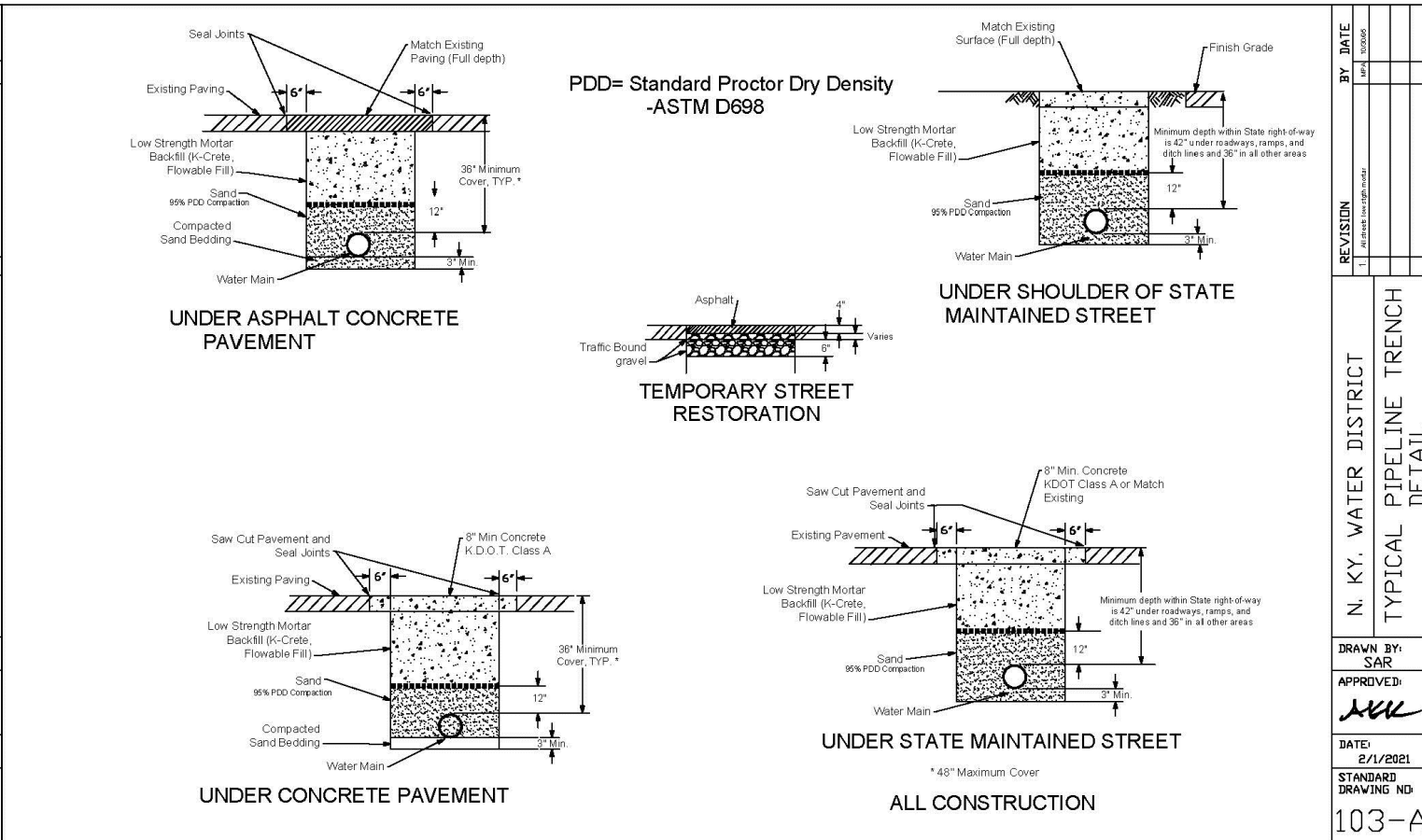
- All pavement cuts shall be saw cut and neatly patched to match existing pavement section. All costs for such pavement cuts, patching, and overlays as required shall be included in the contractor's bid.
- Contractor shall restore disturbed pavement after construction, shall minimize inconvenience to traffic during construction, and shall provide smooth transitions to existing pavement, paving materials and construction thereof shall be in accordance with the KYTC standard specifications and the project specifications.
- Construction access roads, existing pavement or gravel roads, and driveways if removed, disturbed, or damaged by contractor's work shall be maintained by contractor and restored or replaced to existing or better than pre-construction conditions after work is complete. The cost of this restoration or replacement shall be included in the total cost for the project. No additional payment will be made.

SAFETY ADVISORY:

- Protection of persons and property: Barricade open excavations occurring as part of this work as required to maintain vehicular and pedestrian safety. Provide all necessary barriers, warning lights, signage, flagman, and other measures as required to maintain public safety as designated on the plans, directed by the owner, and as recommended by other authorities having jurisdiction.

PROHIBITED CONSTRUCTION ACTIVITIES:

- Indiscriminate or arbitrary operation of equipment outside the easement/right-of-way limits is prohibited.
- Pumping of sediment-laden water from trenches or other excavation directly into storm sewers is prohibited; all such water shall be properly filtered or settled to remove silt prior to discharging into any drain.

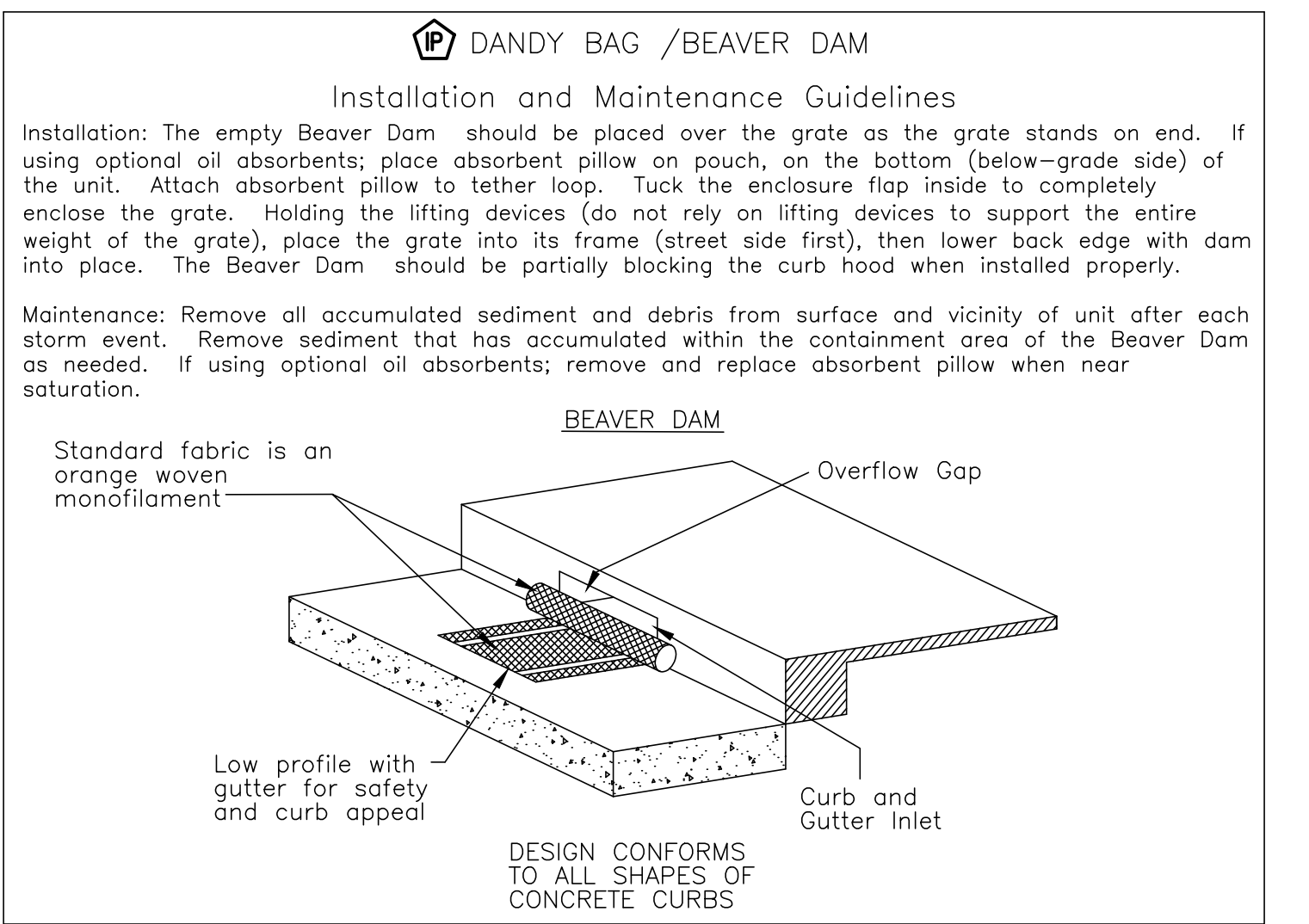
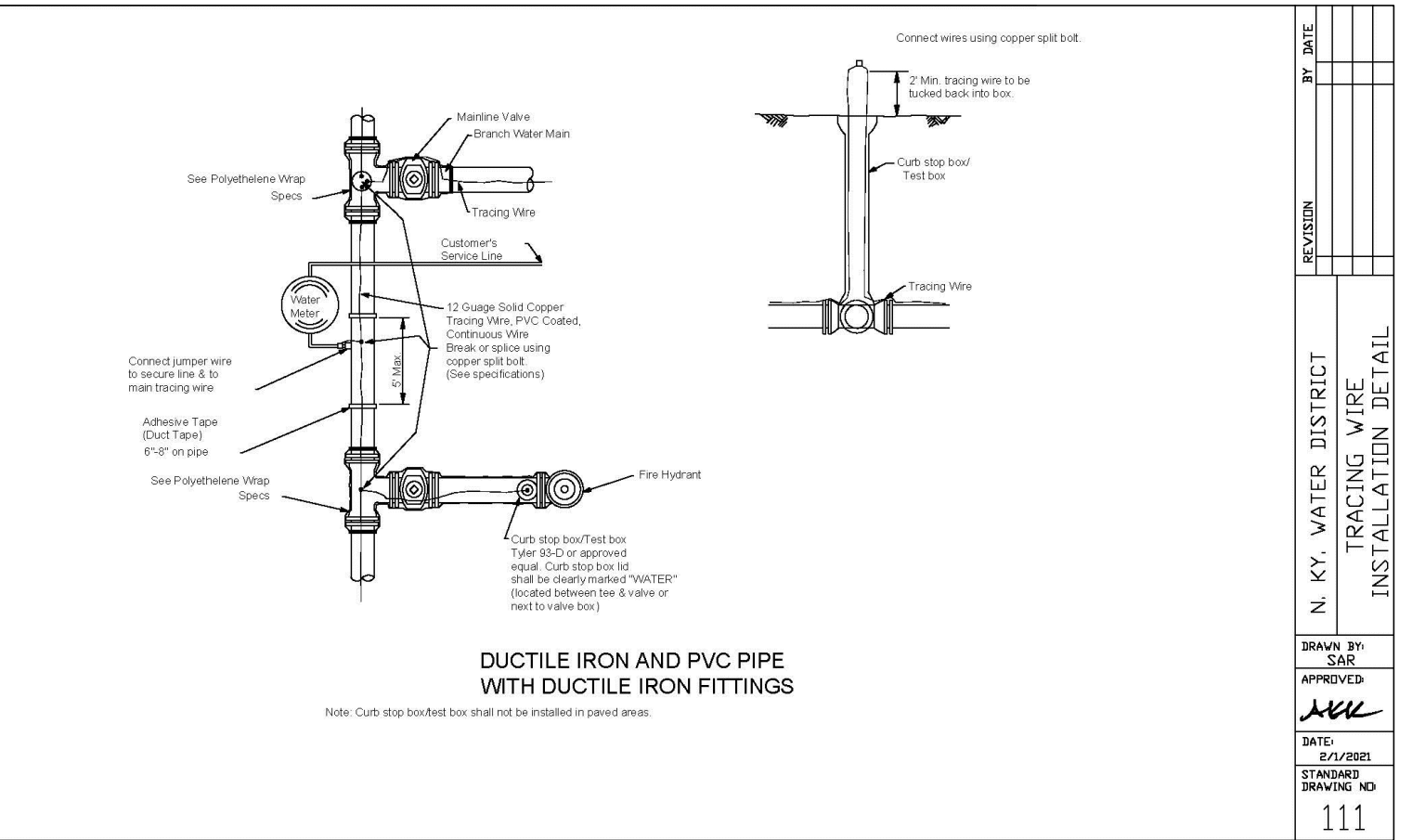
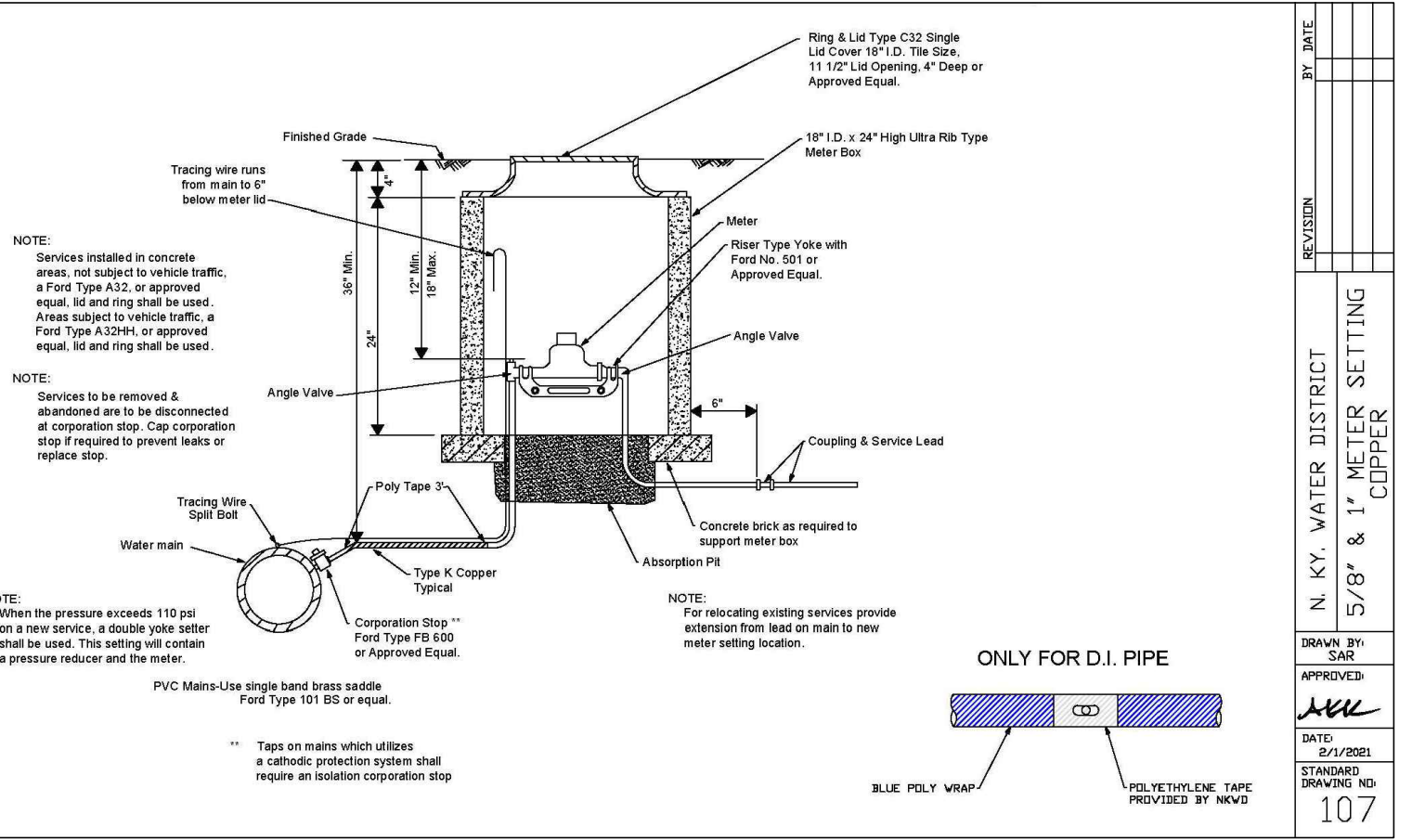
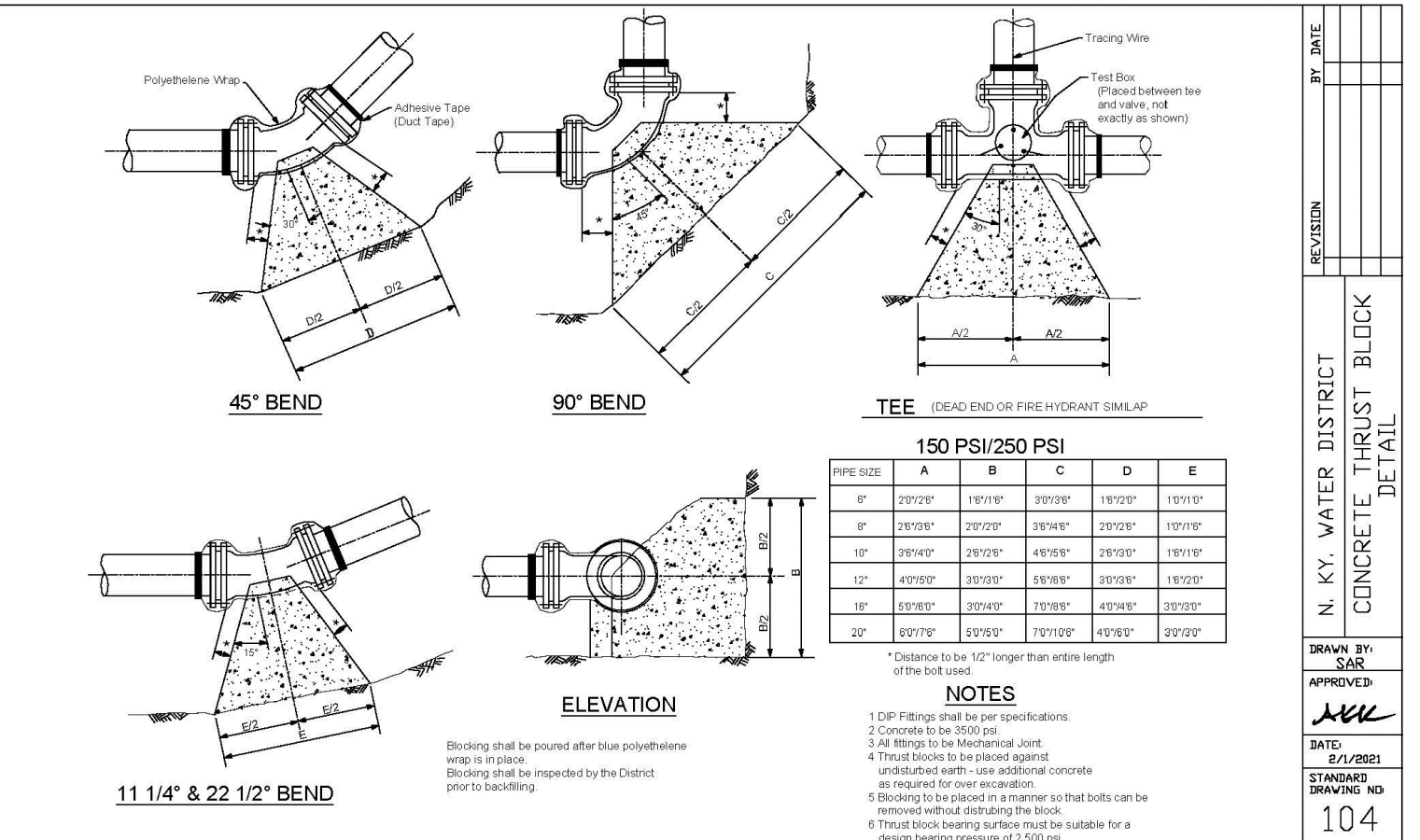


CLEARING & GRUBBING & PROTECTION OF TREES:

- Clearing and grubbing shall not commence until the contractor is prepared to start construction, and erosion control measures are installed and in place. Contractor shall be responsible for disposing of all stumps, brush, debris, and trees in a legal and environmentally sound manner. Items shall be removed only as directed by the owner or engineer.
- The contractor shall avoid any unnecessary damage to trees, within temporary construction limits or easement areas without the prior approval of the owner and engineer; this includes work and staging areas obtained by the contractor by means of private agreement with property owners. Tree branches which overhang the construction limits and which interfere with the operation of equipment shall be tied back to avoid damage. Where injury to branches is unavoidable, the branches shall be sawed off neatly at the trunk or main branch and the cut area shall be painted with approved tree paint immediately. Any trees damaged beyond saving shall be removed by contractor at his own expense. In the case of trees located outside the construction limit area, restitution acceptable to the property owner shall be provided by the contractor.

EROSION AND SEDIMENTATION CONTROL:

- Provide and maintain erosion protection using straw bales, inlet protection, etc. and any other erosion prone areas as directed by the Owner or Engineer. This requirement pertains also to haul and access roads. Note details for erosion protection elsewhere within the drawings and specifications. Erosion control measures shall be installed prior to initial construction activities or as soon as practical.
- The Contractor shall control wastes, garbage, debris, wastewater, and other substances on the site in such a way that they shall not be transported from the site by the action of winds, storm water runoff, or other forces. Proper disposal or management of all wastes and unused building material, appropriate to the nature of the waste or material, is required. Compliance is required with all state or local regulations regarding waste disposal, sanitary sewer, or septic systems.
- Remove only those trees required for actual construction.
- Immediately following trench backfill, rough grade all disturbed areas and permanently stabilize each disturbed area with perennial vegetation installed according to the landscaping section of the specifications. If final grading and seeding will not occur within 15 days, all disturbed areas shall be temporarily seeded and/or mulched immediately.
- Final grading shall be consistent with pre-construction topography. It shall be completed in any given area as soon as it is no longer needed for trafficking of equipment and materials. Final restoration shall immediately follow final grading.
- All excess spoil material is to be removed promptly and disposed of in an environmentally sound manner. If such material is wasted on site, it shall be seeded immediately. Waste or disposal areas and construction roads shall be located and constructed in a manner that shall keep sediment from roadways.
- All temporary erosion and sediment control practices shall be removed and disposed of within thirty days after final site stabilization is achieved or after the temporary practices are no longer needed. Trapped sediment shall be permanently stabilized to prevent further erosion.
- If work is suspended for any reason, the Contractor shall maintain the erosion and sedimentation controls during the suspension at no additional cost to the Owner.



NOTE:

DETAILS CONTAINED ON THIS SHEET ARE FOR REFERENCE ONLY. CONTRACTOR TO REFER TO THE MOST CURRENT NORTHERN KENTUCKY WATER DISTRICT STANDARD DETAILS AND DRAWINGS.

NEWPORT WATER MAIN REPLACEMENT - PHASE 3

CITY OF NEWPORT CAMPBELL COUNTY, KENTUCKY

NOTES AND DETAILS

Revision Description

Date	Chk:	Rev	Description
02-23-24	RTK	1	90% REVIEW SET TO NKWD
05-09-24	JMH	2	90% REVIEW SET TO NKWD
06-11-24	JMH	3	ISSUED FOR PERMIT

Item

1	90% REVIEW SET TO NKWD
2	90% REVIEW SET TO NKWD
3	ISSUED FOR PERMIT

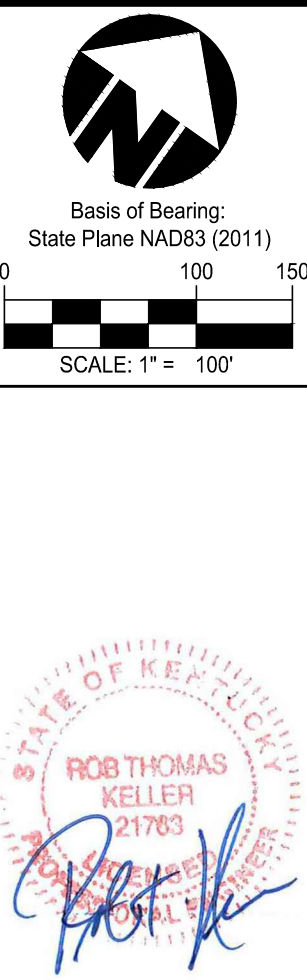
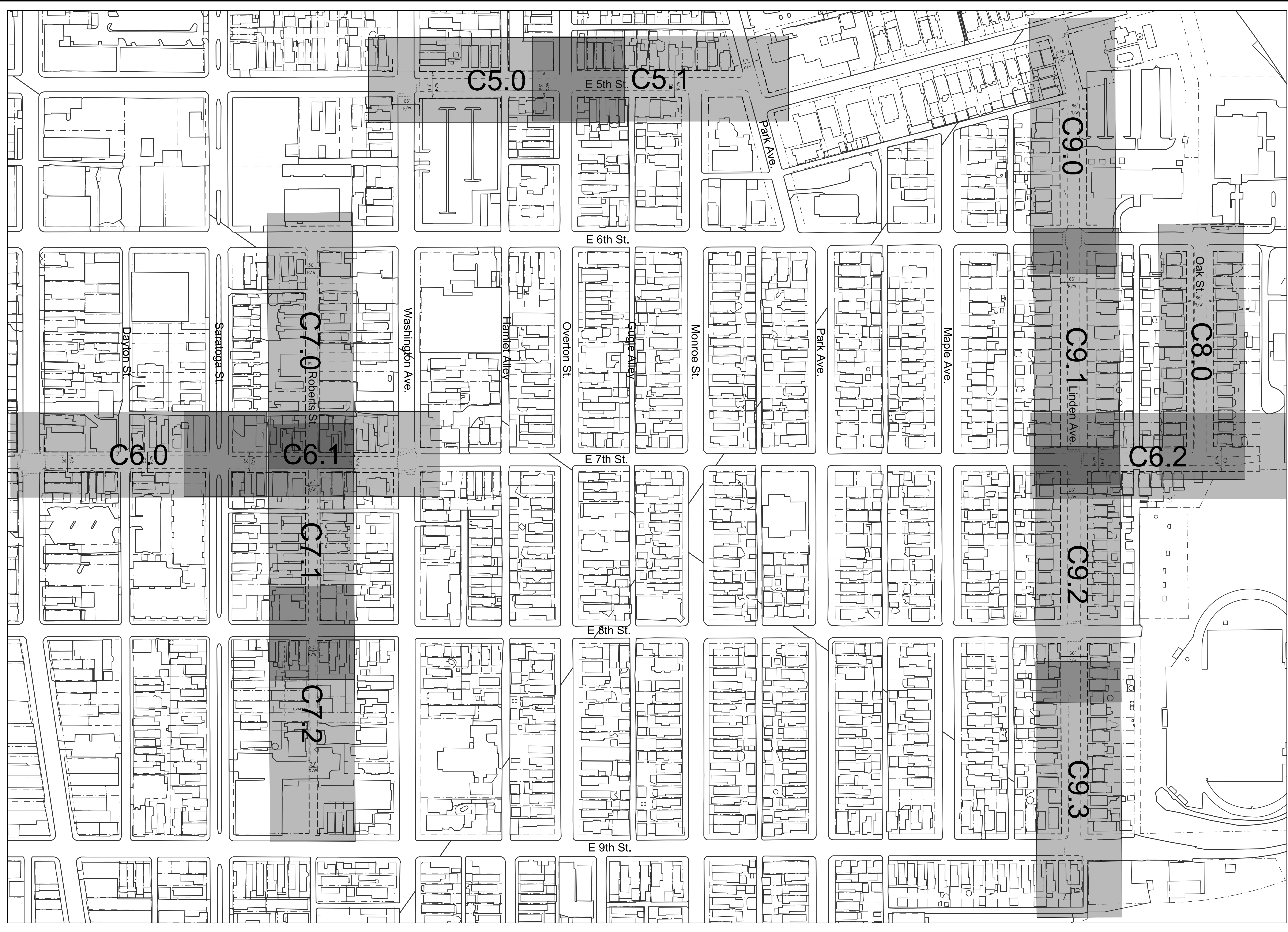
Drawing: 22-0151 TS

Drawn by: JMH

Checked By: TRA

Issue Date: 02-23-24

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NEWPORT WATER MAIN REPLACEMENT - PHASE 3

**CITY OF NEWPORT
CAMPBELL COUNTY, KENTUCKY**

PHASE 3 OVERVIEW



209 Grandview Drive
Fort Mitchell, KY 41017 - 859.261.1113

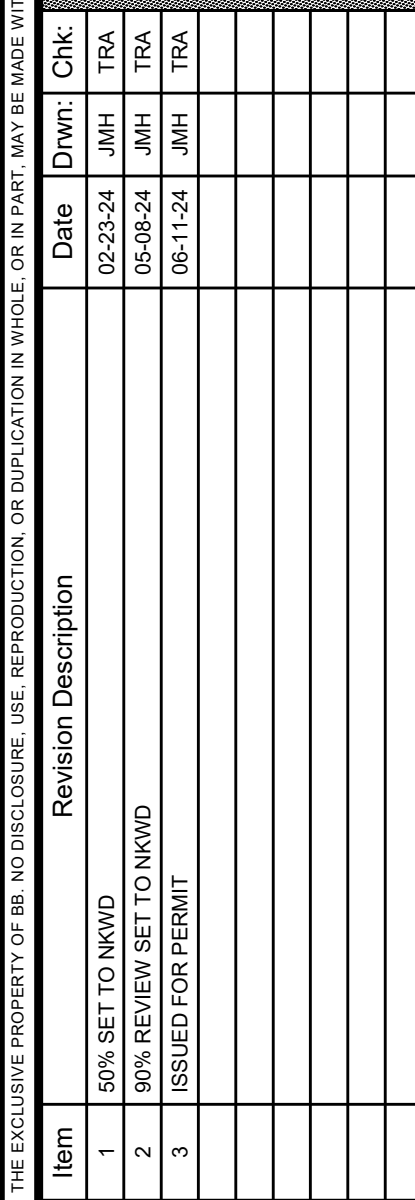
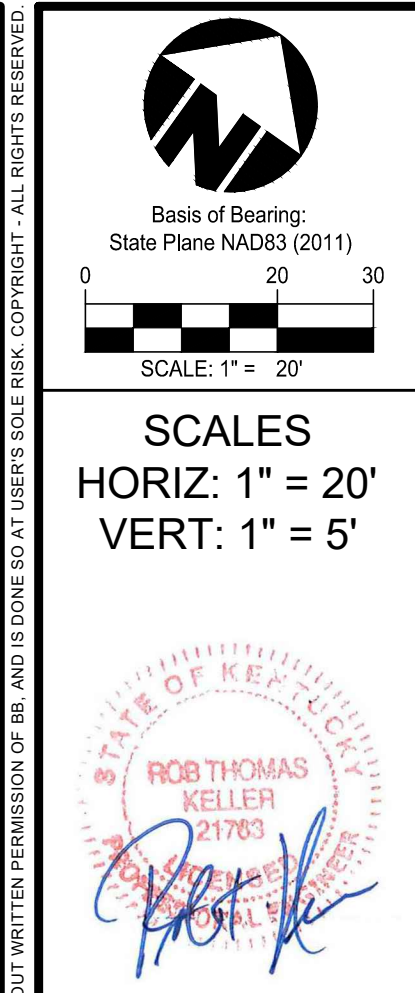
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Checked By:	JMH
	TRA


Issue Date:	02-23-24
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Fort Mitchell, KY 41017 • 859.261.1113

Drawing:	22-0151 WM PHASE 3
Drawn by:	JMH
Checked by:	TRA
Issue Date:	02-23-24

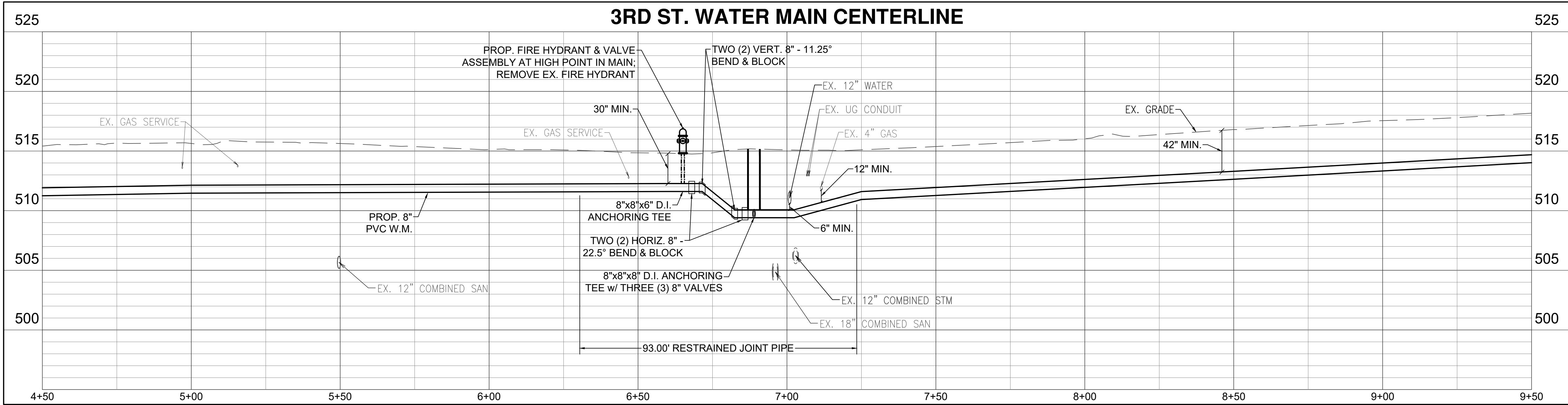
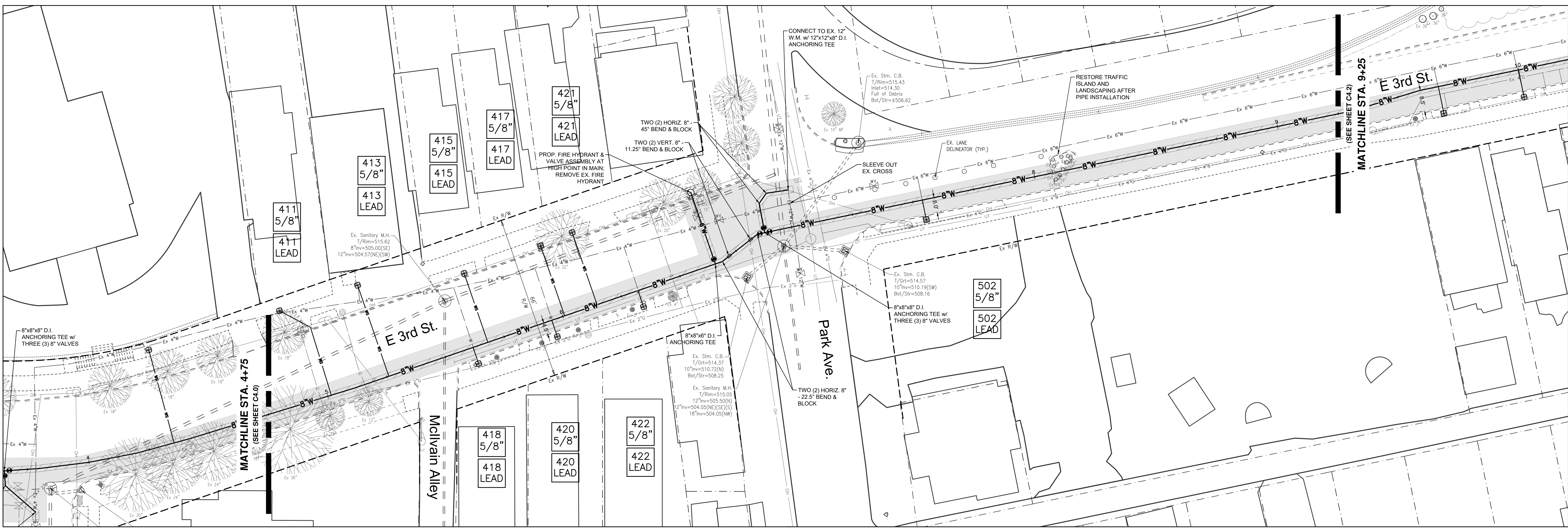
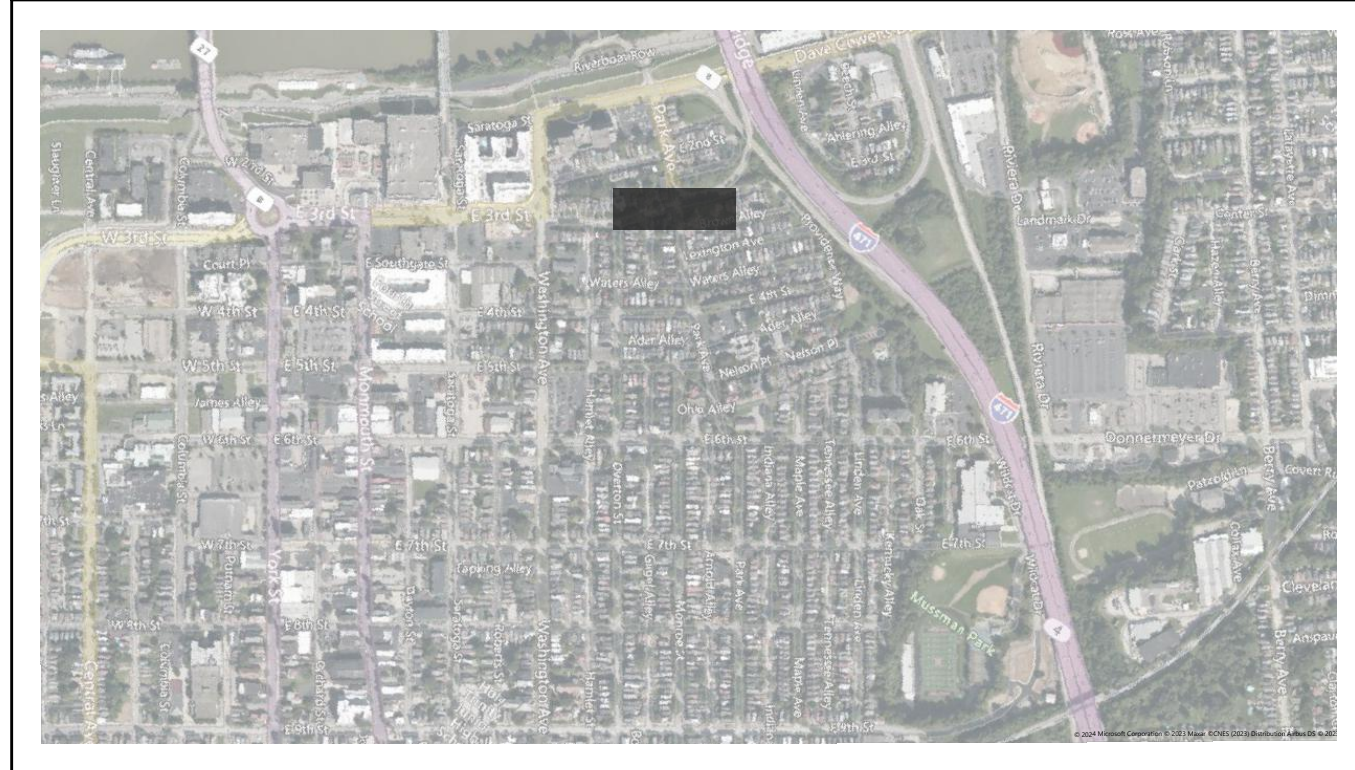
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- ## HATCH LEGEND:

- GENERAL NOTES:**
1. STATIONING FOLLOWS LENGTH OF WATER MAIN REPLACEMENT STARTING WITH 0+00 AT THE BEGINNING OF THE NEW MAIN.

Plot time: Jun 12, 2024 - 3:16pm
Drawing name: J:\2022\22-0151\CV\DWG\22-0151 WM Phase 3.dwg - Layout Tab: C4 E 3rd St.



WATER SERVICE LEGEND

## SIZE	ADDRESS METER SIZE	10.02 REPLACE SERVICE LINE & INSTALL WATER METER SETTING (3/4" - 2")
## SIZE*	ADDRESS METER SIZE	10.02 REPLACE SERVICE LINE & INSTALL WATER METER SETTING (3/4" - 2") *VERIFY LOCATION OF EXISTING WATER METER
## LEAD	ADDRESS	10.10 REPLACE PRIVATE SIDE LEAD SERVICE LINE
METER SIZE	SERVICE LINE SIZE	
5/8"	3/4"	
1"	1"	
1-1/2"	1-1/2"	
2"	2"	

- NOTES:
- ALL SERVICES 2" AND SMALLER TO BE COPPER. NKWD TO PROVIDE THE MATERIAL FOR UTILITY OWNED SIDE OF THE SERVICE. CONTRACTOR TO PROVIDE THE MATERIAL FOR THE CUSTOMER OWNED SIDE OF THE SERVICE.
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WATER MAIN REPLACEMENT NOTES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD LOCATING ALL SANITARY SEWER LATERALS PRIOR TO STARTING WORK AND MAINTAINING SERVICE DURING CONSTRUCTION. THE CONTRACTOR SHALL PRACTICE CARE DURING TRENCH EXCAVATION AND SHALL BE RESPONSIBLE FOR REPLACING ANY SEWER LATERALS THAT ARE DAMAGED DURING CONSTRUCTION AT THEIR EXPENSE.
- ALL WATER METERS SHALL BE PLACED WITHIN THE RIGHT-OF-WAY. THE FINAL METER LOCATION SHALL BE FIELD VERIFIED BY A NKWD REPRESENTATIVE.
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- ALL DIMENSIONS TO THE CENTERLINE OF THE PROPOSED WATER MAIN ARE MADE FROM THE FACE OF THE EXISTING CURB, EDGE OF PAVEMENT WHERE THERE IS NO CURB, OR THE CENTERLINE OF THE STREET.
- REMOVAL AND REPLACEMENT OF MAILBOXES, LANDSCAPING, HARDSCAPING, ETC. IS INCIDENTAL TO THE PROJECT.

GENERAL NOTES:

- STATIONING FOLLOWS LENGTH OF WATER MAIN REPLACEMENT STARTING WITH 0+00 AT THE BEGINNING OF THE NEW MAIN.

HATCH LEGEND:

	SAWCUT & REMOVE EXISTING SURFACE TO CONSTRUCT WATER MAIN. REPLACE WITH PERMANENT PAVEMENT TO MATCH EXISTING GRADE, PER N.K.W.D. AND CITY OF NEWPORT SPECIFICATIONS AND DETAILS. TRENCH TO BE BACKFILLED WITH FLOWABLE FILL IN PAVEMENT LIMITS.
	SAWCUT & REMOVE EXISTING SURFACE TO CONSTRUCT WATER MAIN. REPLACE FULL PANELS WITH FULL DEPTH CONCRETE PAVEMENT TO MATCH EXISTING. TRENCH TO BE BACKFILLED WITH FLOWABLE FILL IN PAVEMENT LIMITS.
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Basis of Bearing:
State Plane NAD83 (2011)

0202222-0151

20

30

SCALE: 1" = 20'

SCALES

HORIZ: 1" = 20'

VERT: 1" = 5'

STATE OF KENTUCKY

ROB THOMAS
KELLER
217763

Item	Revision Description	Date	Chk	Drawn
1	50% REVIEW SET TO NKWD	02-23-24	JMH	TRA
2	90% REVIEW SET TO NKWD	05-08-24	JMH	TRA
3	ISSUED FOR PERMIT	06-11-24	JMH	TRA

NEWPORT WATER MAIN
REPLACEMENT - PHASE 3

CITY OF NEWPORT
CAMPBELL COUNTY, KENTUCKY

EAST 3RD STREET - STA. 4+50 TO 9+50

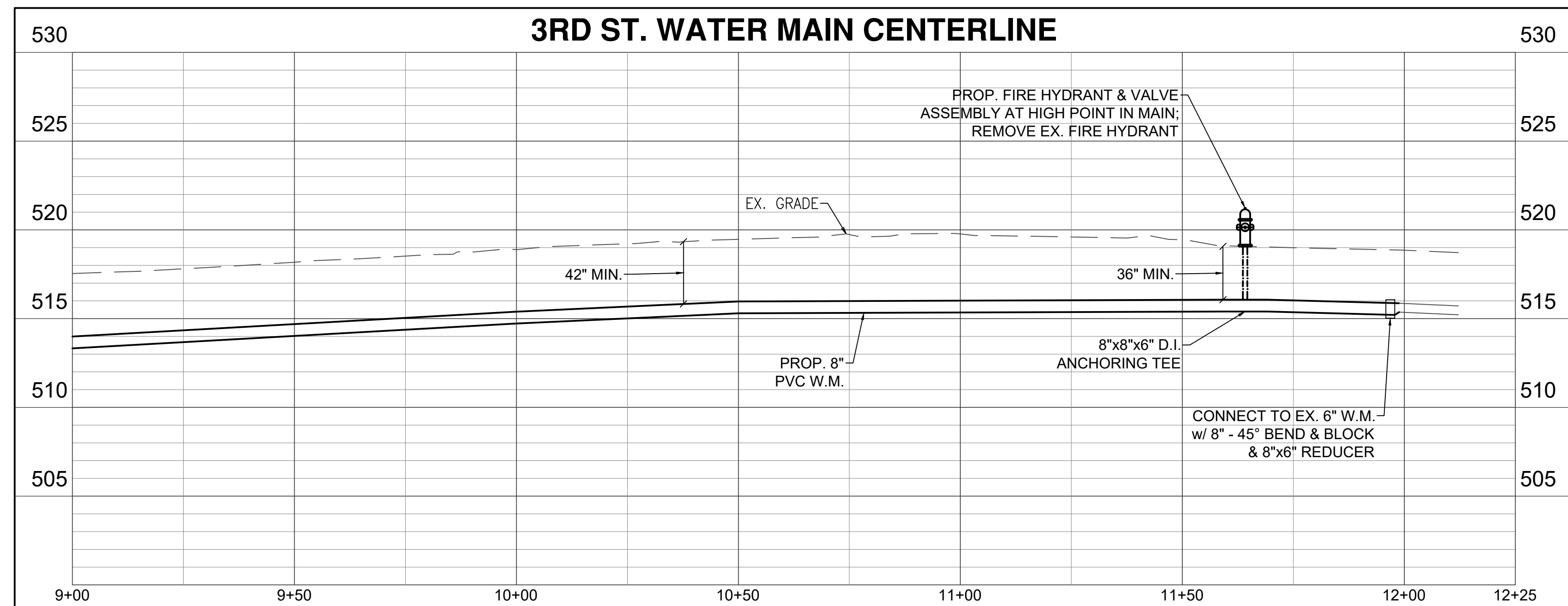
Drawing:
22-0151 WM PHASE 3

Drawn by:
JMH

Checked By:
TRA

Issue Date:
02-23-24

Sheet:
C4.1



WATER SERVICE LEGEND

## SIZE	ADDRESS METER SIZE	10.02 REPLACE SERVICE LINE & INSTALL WATER METER SETTING (3/4" - 2")
## SIZE*	ADDRESS METER SIZE	10.02 REPLACE SERVICE LINE & INSTALL WATER METER SETTING (3/4" - 2") *VERIFY LOCATION OF EXISTING WATER METER
## LEAD	ADDRESS	10.10 REPLACE PRIVATE SIDE LEAD SERVICE LINE
<u>METER SIZE</u>	<u>SERVICE LINE SIZE</u>	
5/8"	3/4"	
1"	1"	
1-1/2"	1-1/2"	
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NOTES:

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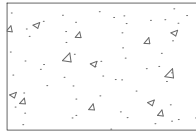
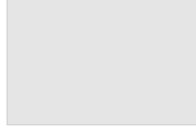
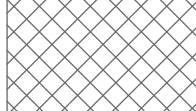
WATER MAIN REPLACEMENT NOTES:

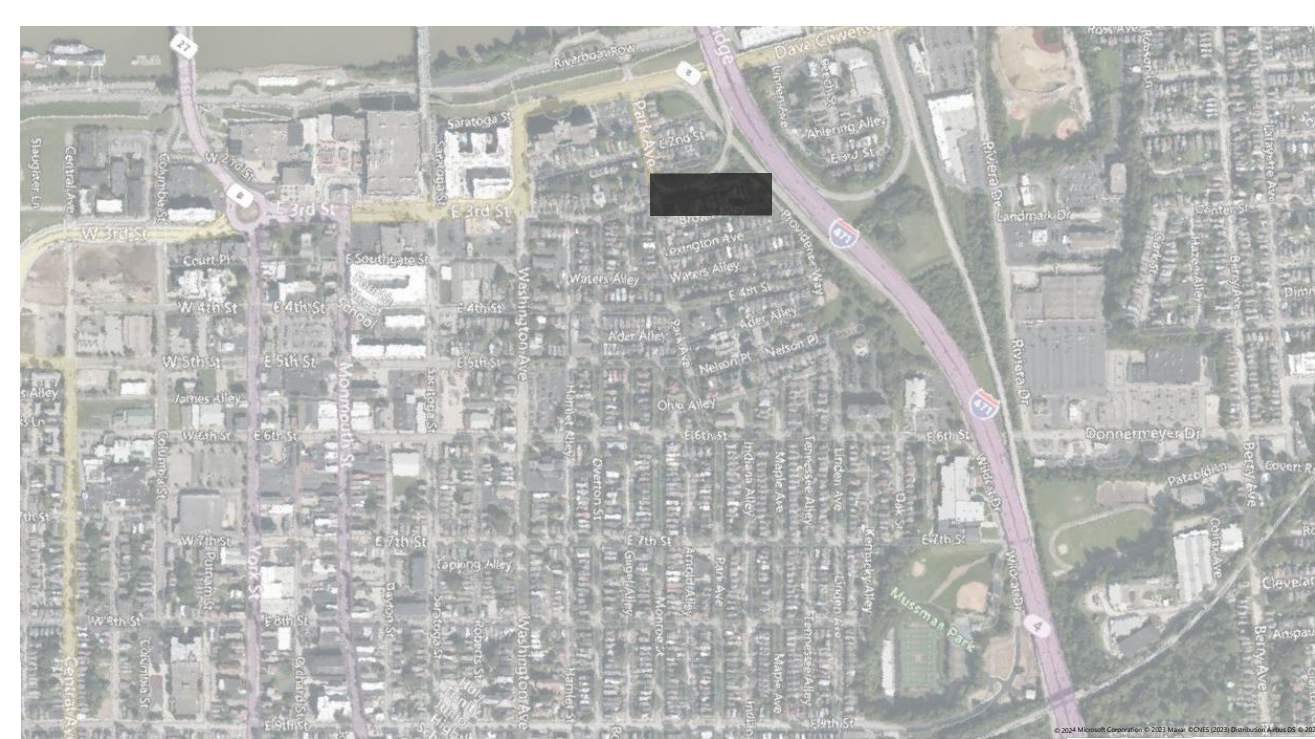
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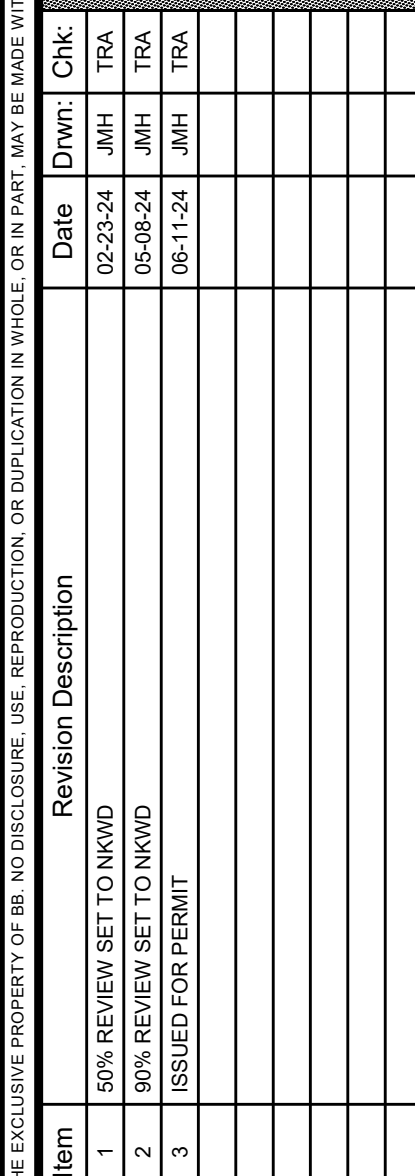
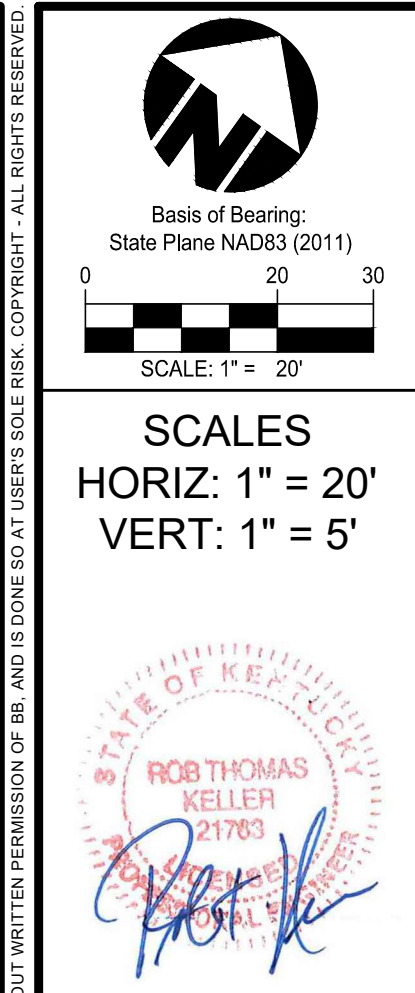
GENERAL NOTES:

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HATCH LEGEND:

	SAWCUT & REMOVE EXISTING SURFACE TO CONSTRUCT WATER MAIN. REPLACE WITH PERMANENT PAVEMENT TO MATCH EXISTING GRADE, PER N.K.W.D. AND CITY OF NEWPORT SPECIFICATIONS AND DETAILS. SEE DETAIL SHEET C1.0. TRENCH TO BE BACKFILLED WITH FLOWABLE FILL IN PAVEMENT LIMITS.
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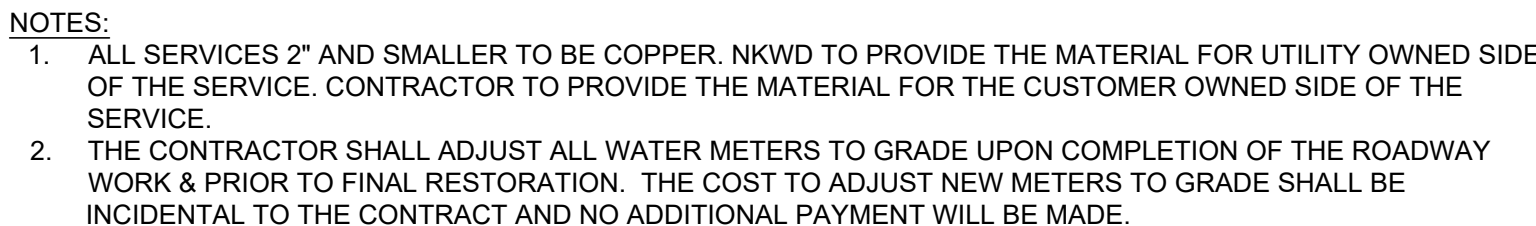
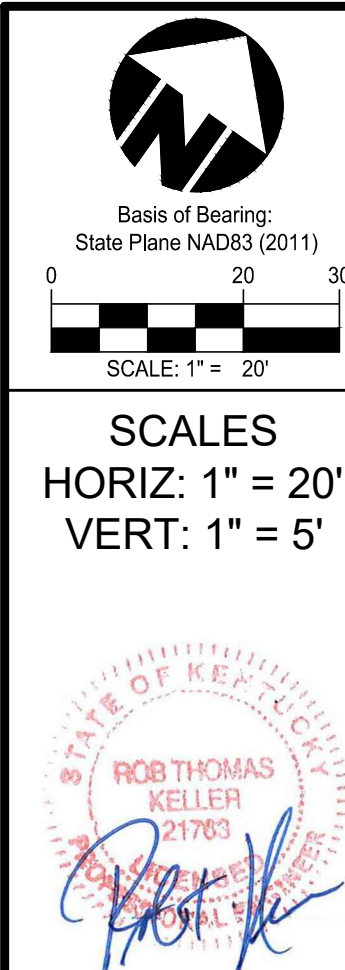
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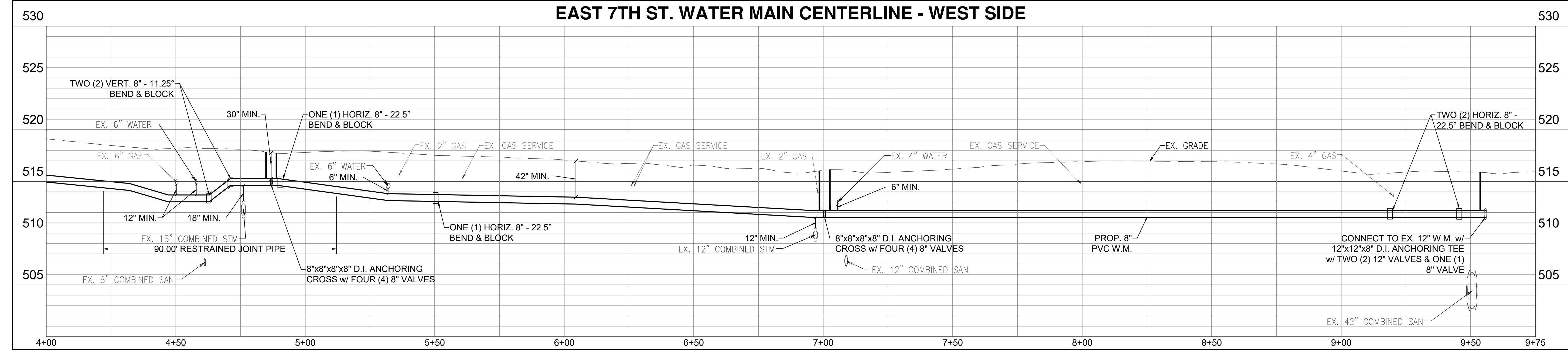
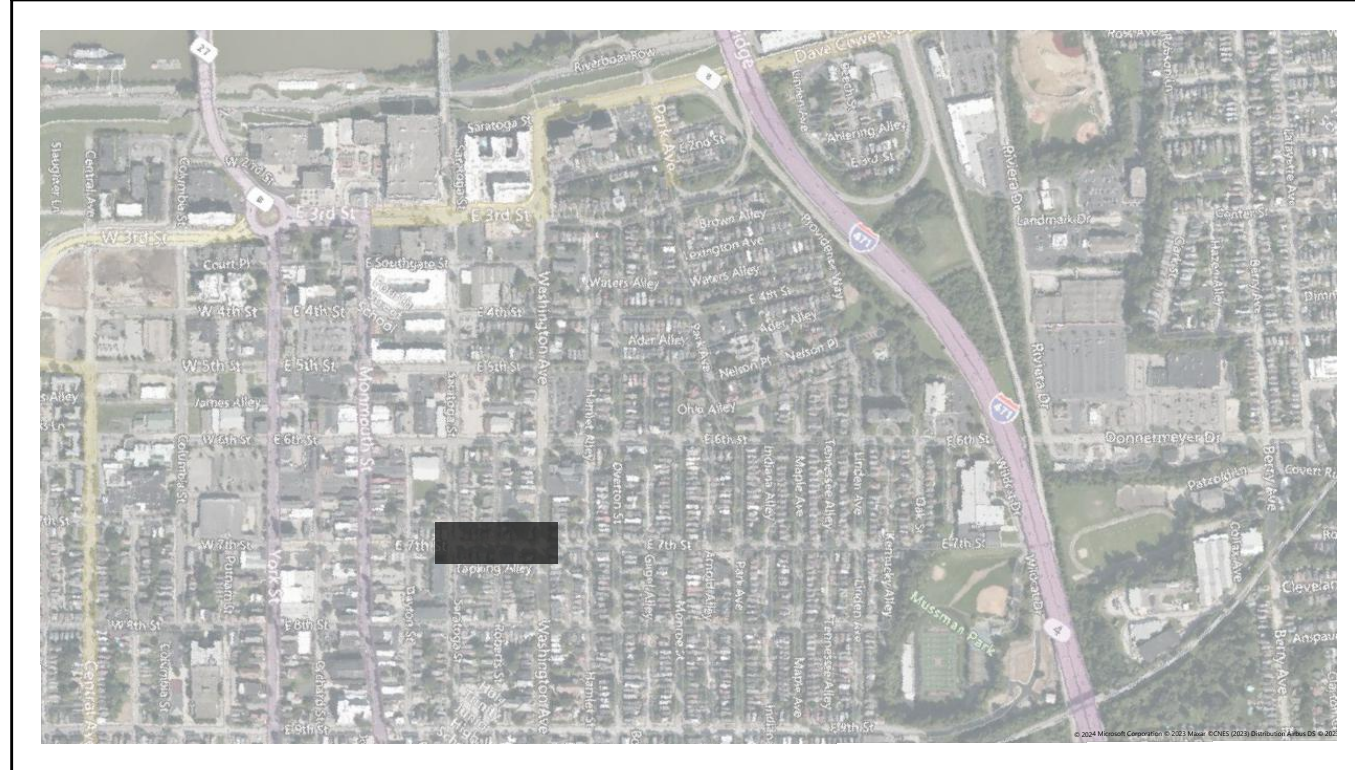
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	<p>MINIMUM 1.5\"</p>
	<p>SAWCUT & REMOVE EXISTING SURFACE TO CONSTRUCT WATER MAIN. REPLACE WITH 4\"</p>

Drawing:	22-0151 WM PHASE 6
Drawn by:	JM
Checked By:	TI
Issue Date:	02-23-

C5.1

Plot time: Jun 12, 2024 - 3:22pm
Drawing name: J:\2022\22-0151\CV\DWG\22-0151 WM Phase 3.dwg - Layout Tab: C6 E 7th St.



WATER SERVICE LEGEND

## SIZE	ADDRESS METER SIZE	10.02 REPLACE SERVICE LINE & INSTALL WATER METER SETTING (3/4" - 2")
## SIZE*	ADDRESS METER SIZE	10.02 REPLACE SERVICE LINE & INSTALL WATER METER SETTING (3/4" - 2") *VERIFY LOCATION OF EXISTING WATER METER
## LEAD	ADDRESS	10.10 REPLACE PRIVATE SIDE LEAD SERVICE LINE
METER SIZE	SERVICE LINE SIZE	
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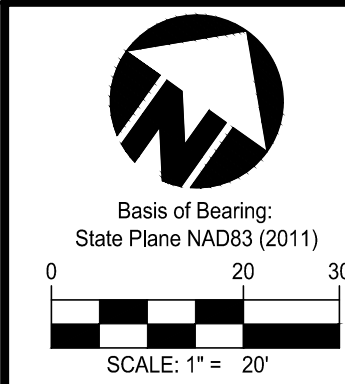
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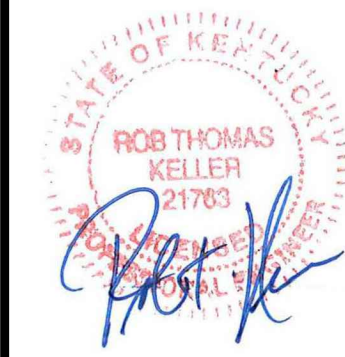
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SCALES
HORIZ: 1" = 20'
VERT: 1" = 5'

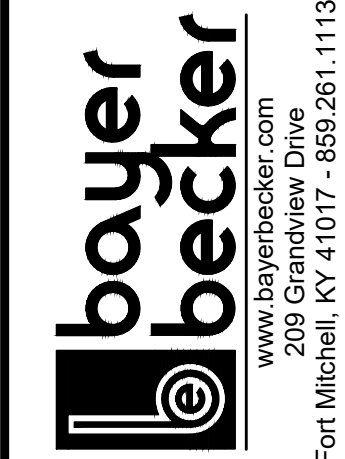


Date	Chk:	Revision Description
02-23-24	JMH	1 90% REVIEW SET TO NKWD
06-08-24	JMH	2 90% REVIEW SET TO NKWD
06-11-24	JMH	3 ISSUED FOR PERMIT

NEWPORT WATER MAIN REPLACEMENT - PHASE 3

CITY OF NEWPORT
CAMPBELL COUNTY, KENTUCKY

EAST 7TH STREET - STA. 4+25 TO END



Drawing: 22-0151 WM PHASE 3

Drawn by: JMH

Checked By: TRA

Issue Date: 02-23-24

Sheet:

C6.1

[illegible]

EAST 7TH STREET - STA. START TO END

0111.02.6C8 - 신인기, 노수현, 김민정, 김민정, 김민정

Drawing:	22-0151 WM PHASE 3
Drawn by:	JMH
Checked By:	TRA
Issue Date:	02-23-24
Sheet:	

C6.2

PROP. FIRE HYDRANT &
VALVE ASSEMBLY; REMOVE
EX. FIRE HYDRANT PRIOR
TO PROJECT COMPLETION

ADDRESS	10.02 REPLACE SERVICE LINE & INSTALL WATER METER SETTING (3/4" - 2")
##	
SIZE	METER SIZE
ADDRESS	10.09 REPLACE SERVICE LINE & INSTALL WATER METER SETTING (3/4" - 2")
##	
SIZE*	METER SIZE
ADDRESS	10.10 REPLACE PRIVATE SIDE LEAD SERVICE LINE
##	
SIZE	

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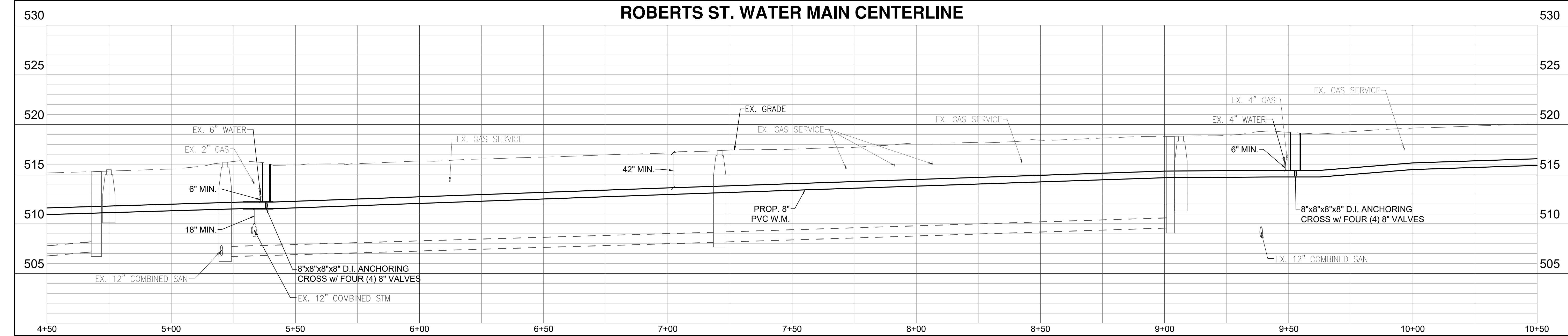
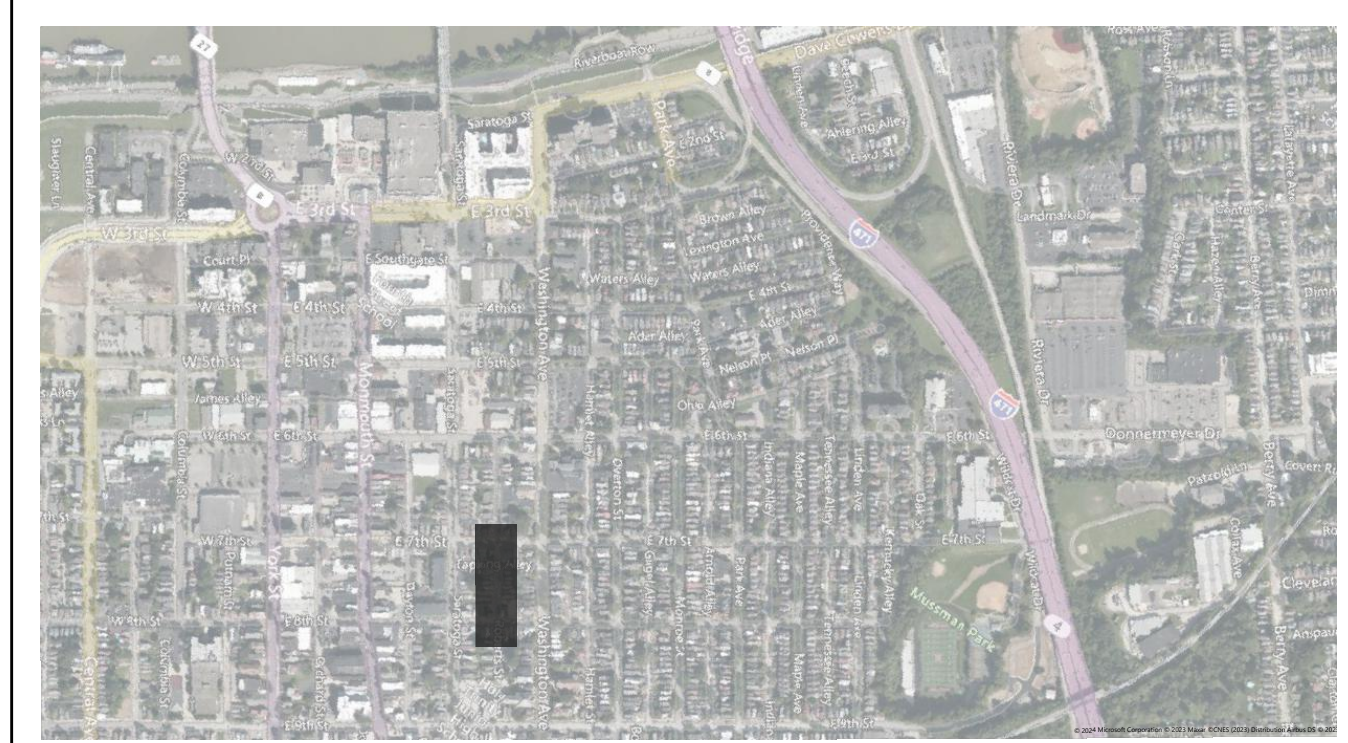
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Plot time: Jun 12, 2024 - 3:23pm
Drawing name: J:\2022\22-0151\CV\DWG\22-0151 WM Phase 3.dwg - Layout Tab: C7 Roberts St.



WATER SERVICE LEGEND

## SIZE	ADDRESS METER SIZE	10.02 REPLACE SERVICE LINE & INSTALL WATER METER SETTING (3/4\" - 2\")
## SIZE*	ADDRESS METER SIZE	10.02 REPLACE SERVICE LINE & INSTALL WATER METER SETTING (3/4\" - 2\") *VERIFY LOCATION OF EXISTING WATER METER
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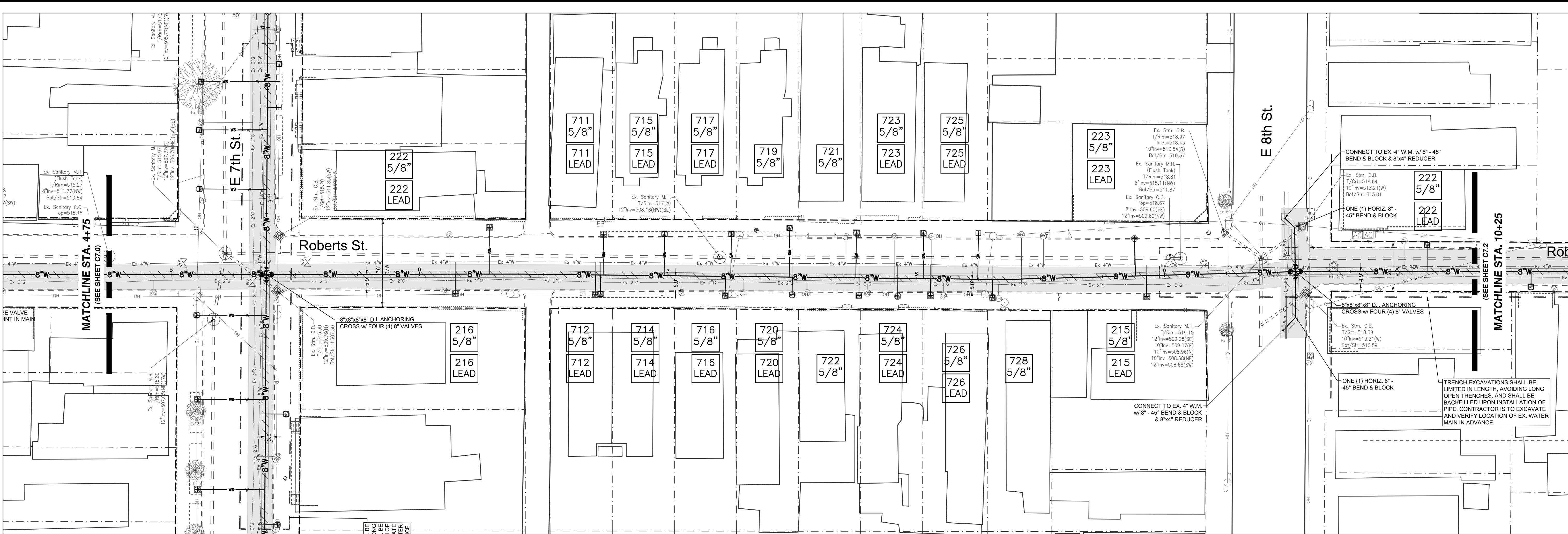
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GENERAL NOTES:

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HATCH LEGEND:

	SAWCUT & REMOVE EXISTING SURFACE TO CONSTRUCT WATER MAIN. REPLACE WITH PERMANENT PAVEMENT TO MATCH EXISTING GRADE. PER N.K.W.D. AND CITY OF NEWPORT SPECIFICATIONS AND DETAILS. SEE DETAIL SHEET C1.0. TRENCH TO BE BACKFILLED WITH FLOWABLE FILL IN PAVEMENT LIMITS.
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Basis of Bearing:
State Plane NAD83 (2011)

0

20

30

SCALE: 1" = 20'

SCALES

HORIZ: 1" = 20'

VERT: 1" = 5'

STATE OF KENTUCKY

ROBERT THOMAS KELLER

21763

Date	Chk:	Item	Revision Description
02-23-24	JMH	1	50% REVIEW SET TO NKWD
06-09-24	JMH	2	90% REVIEW SET TO NKWD
06-11-24	JMH	3	ISSUED FOR PERMIT

NEWPORT WATER MAIN REPLACEMENT - PHASE 3

CITY OF NEWPORT
CAMPELL COUNTY, KENTUCKY

ROBERTS STREET - STA. 4+75 TO 10+25

www.bayerbecker.com

209 Grandview Drive

Fort Mitchell, KY 41017 - 859.281.1113

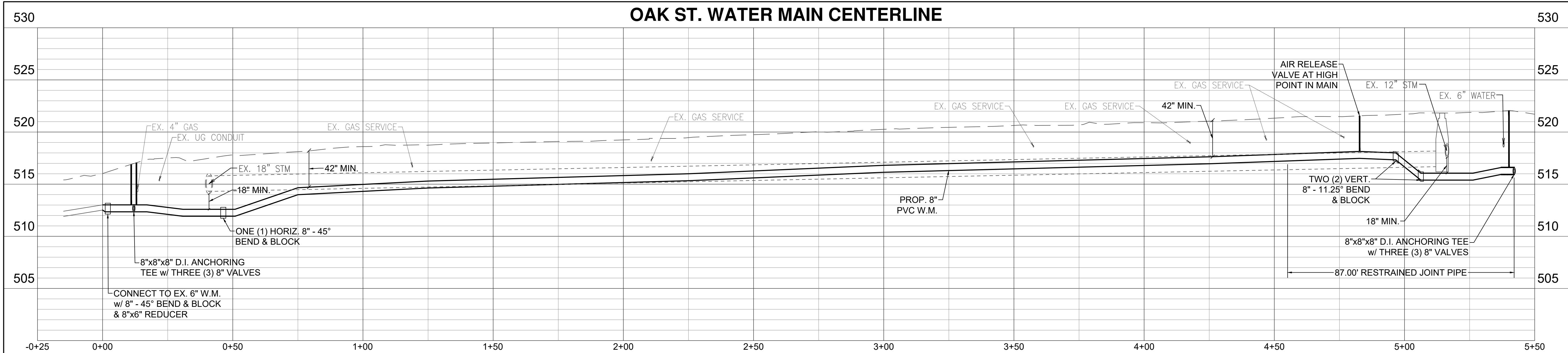
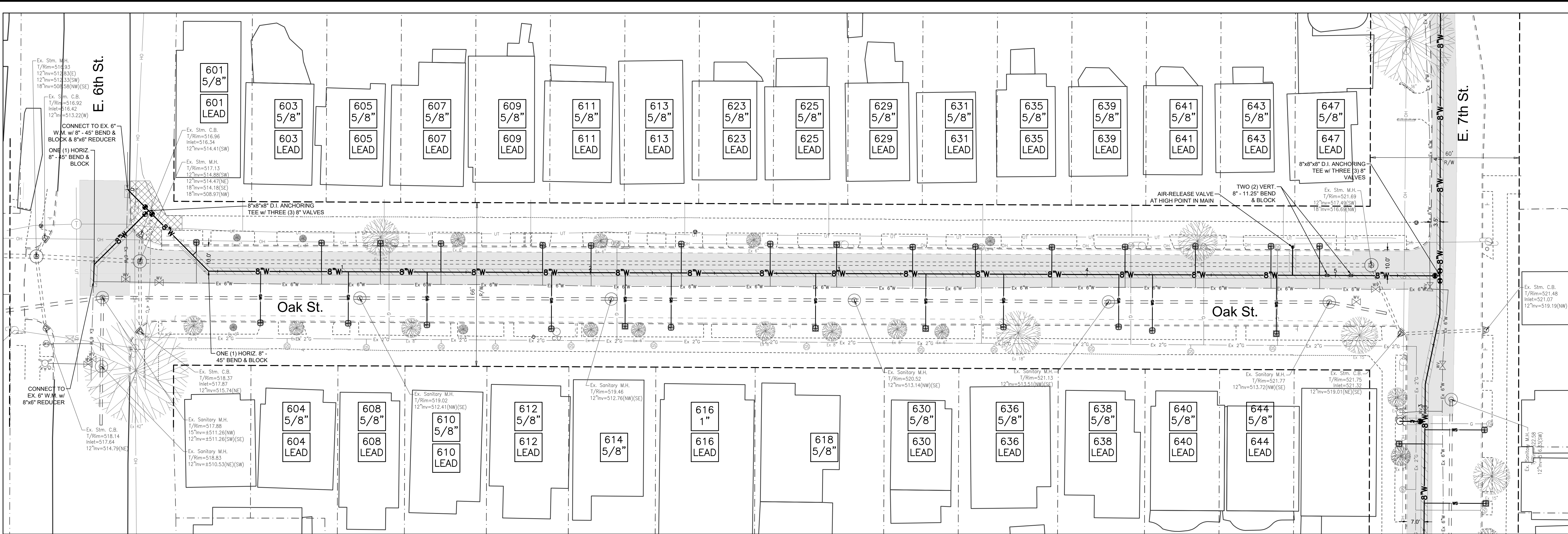
Drawing: 22-0151 WM PHASE 3

Drawn by: JMH

Checked By: TRA

Issue Date: 02-23-24

Sheet: C7.1



WATER SERVICE LEGEND

## SIZE	ADDRESS METER SIZE	10.02 REPLACE SERVICE LINE & INSTALL WATER METER SETTING (3/4" - 2")
## SIZE*	ADDRESS METER SIZE	10.02 REPLACE SERVICE LINE & INSTALL WATER METER SETTING (3/4" - 2") *VERIFY LOCATION OF EXISTING WATER METER
## LEAD	ADDRESS	10.10 REPLACE PRIVATE SIDE LEAD SERVICE LINE
METER SIZE	SERVICE LINE SIZE	
5/8"	3/4"	
1"	1"	
1-1/2"	1-1/2"	
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- NOTES:
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Basis of Bearing:
State Plane NAD83 (2011)

0 20 30

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STATE OF KENTUCKY

ROB THOMAS KELLER

21763

Item	Revision Description	Date	Chk:	Drawn:
1	50% REVIEW SET TO NKWD	02-23-24	JMH	JMH
2	90% REVIEW SET TO NKWD	06-08-24	JMH	JMH
3	ISSUED FOR PERMIT	06-11-24	JMH	JMH

NEWPORT WATER MAIN REPLACEMENT - PHASE 3

CITY OF NEWPORT
CAMPELL COUNTY, KENTUCKY

OAK STREET - STA. START TO END

bayer becker

www.bayerbecker.com

209 Grandview Drive

Fort Mitchell, KY 41017 - 859.281.1113

Drawing: 22-0151 WM PHASE 3

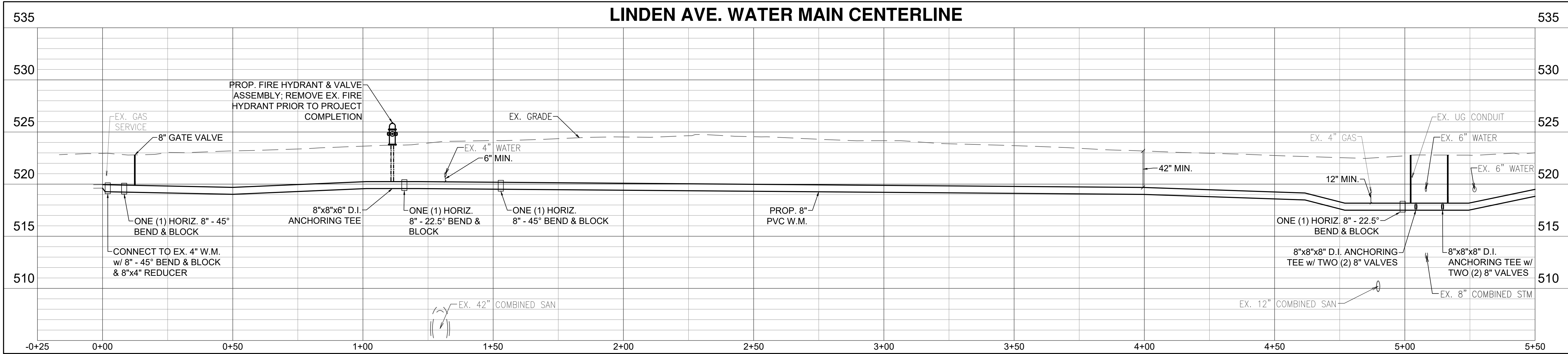
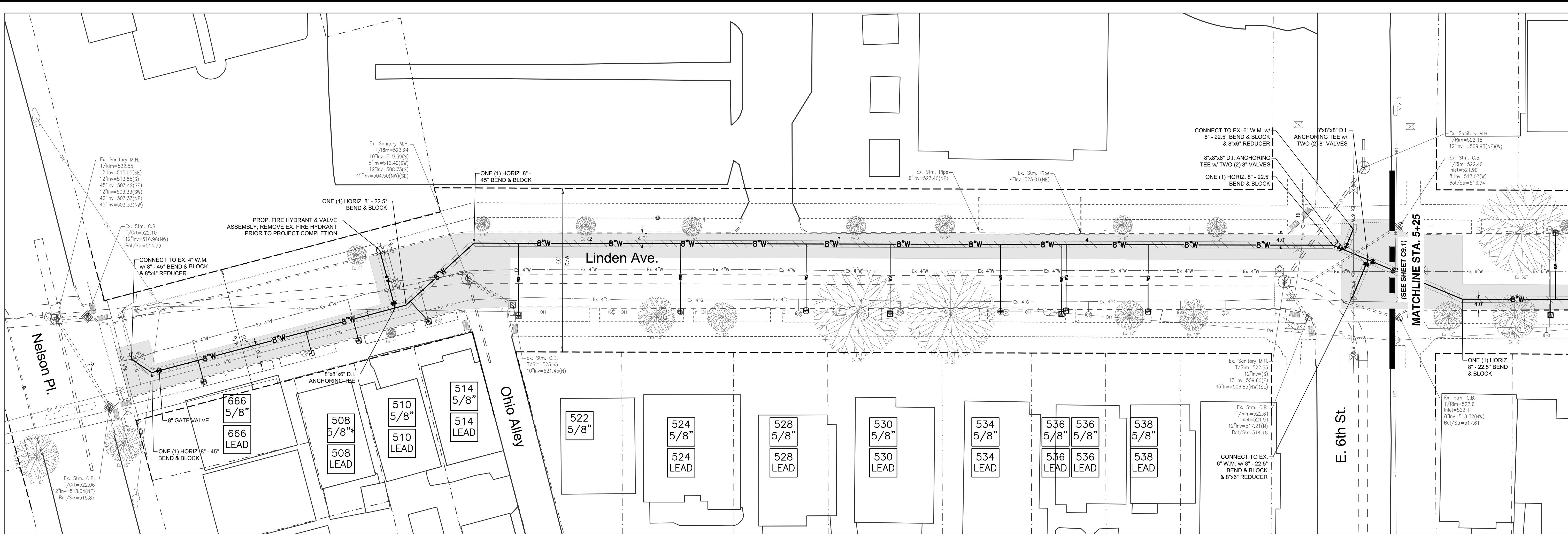
Drawn by: JMH

Checked By: TRA

Issue Date: 02-23-24

Sheet:

C8.0



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STATE OF KENTUCKY

ROB THOMAS KELLER

21763

[Signature]

Date	Chk:	Revision Description
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06-08-24	JMH	TRA
06-11-24	JMH	TRA

Item	Revision Description
1	50% REVIEW SET TO NKWD
2	90% REVIEW SET TO NKWD
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NEWPORT WATER MAIN REPLACEMENT - PHASE 3

CITY OF NEWPORT
CAMPELL COUNTY, KENTUCKY

LINDEN AVENUE - STA. START TO 5+25

Drawing: 22-0151 WM PHASE 3

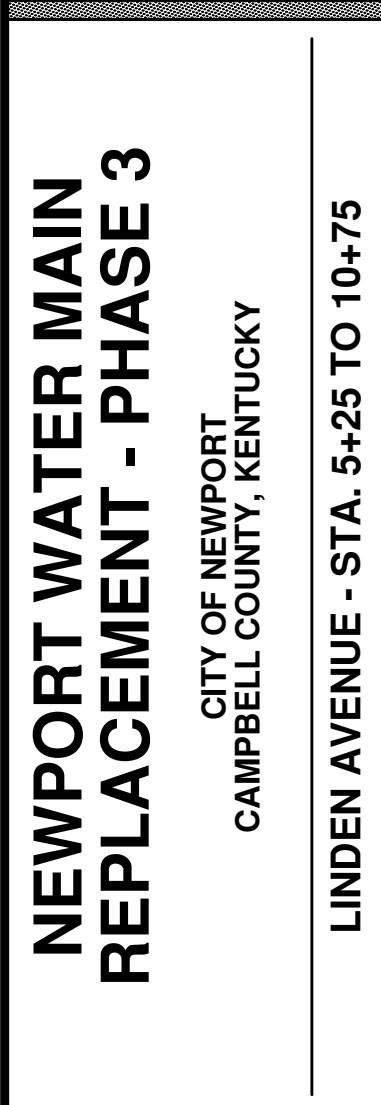
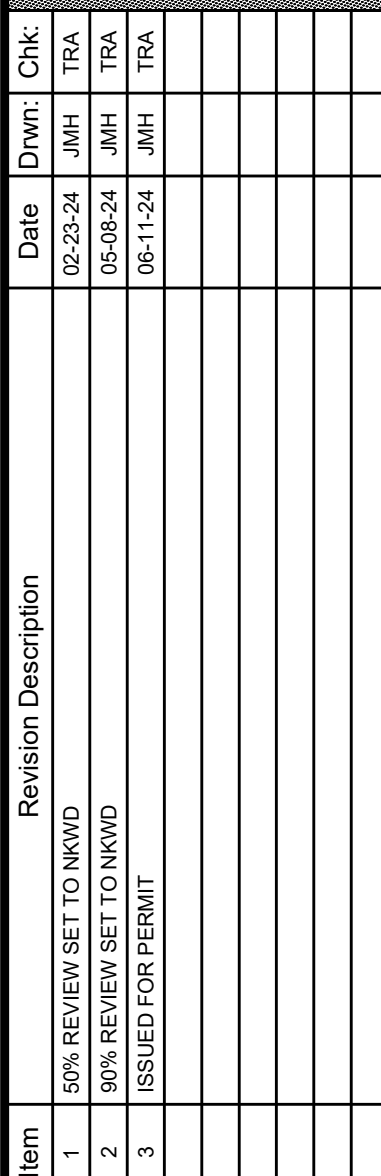
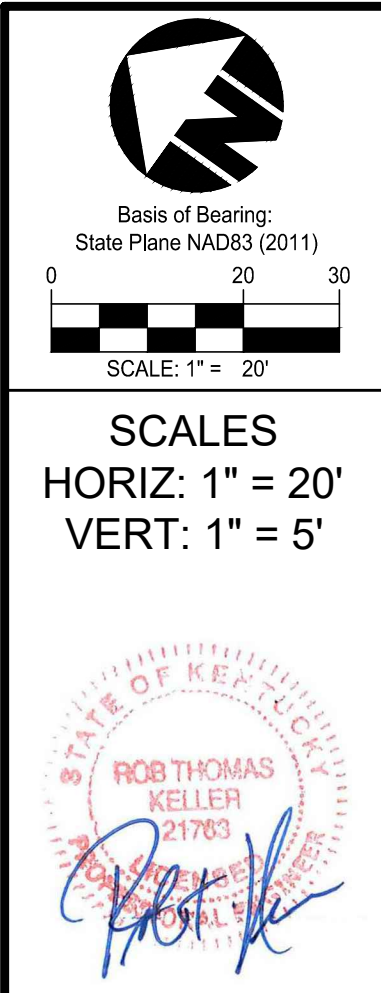
Drawn by: JMH

Checked By: TRA

Issue Date: 02-23-24

Sheet:

C9.0



	<p>SAWCUT & REMOVE EXISTING SURFACE TO CONSTRUCT WATER MAIN. REPLACE WITH PERMANENT PAVEMENT TO MATCH EXISTING GRADE. PER N.K.W.D. AND CITY OF NEWPORT SPECIFICATIONS AND DETAILS. SEE DETAIL SHEET C1.0. TRENCH TO BE BACKFILLED WITH FLOWABLE FILL IN PAVEMENT LIMITS.</p>
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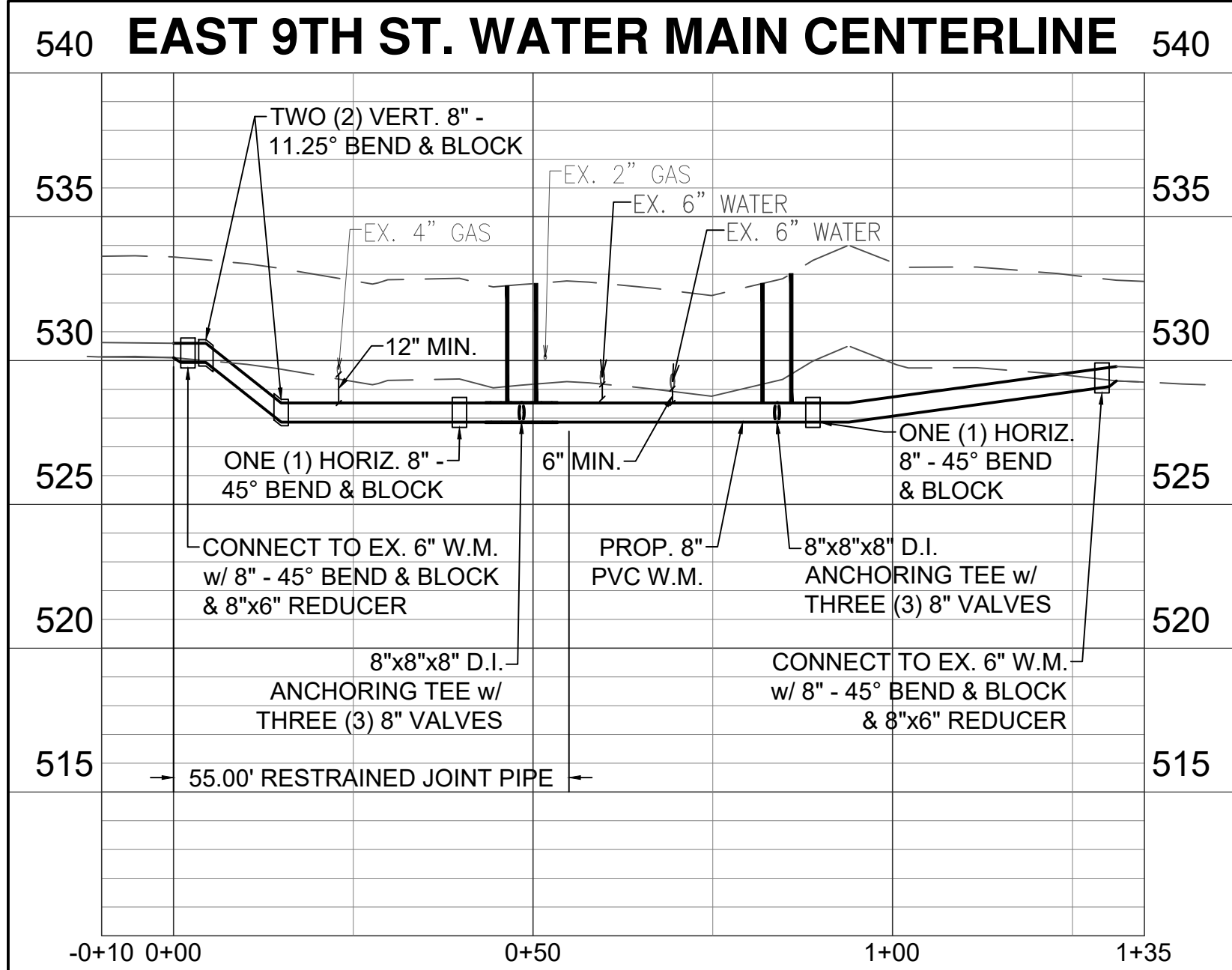
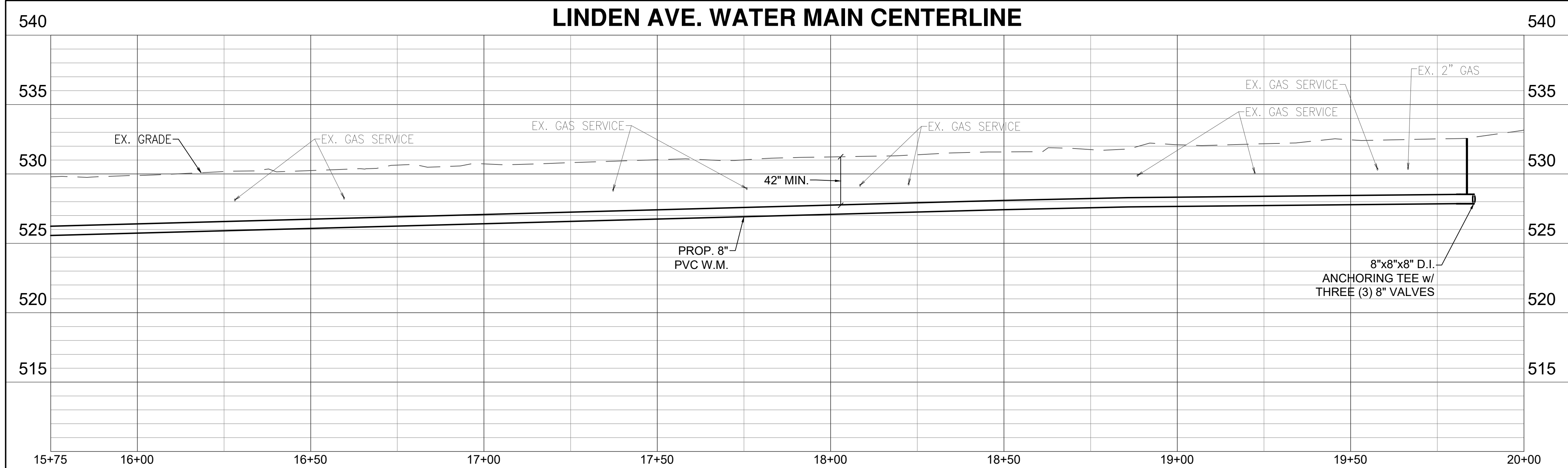
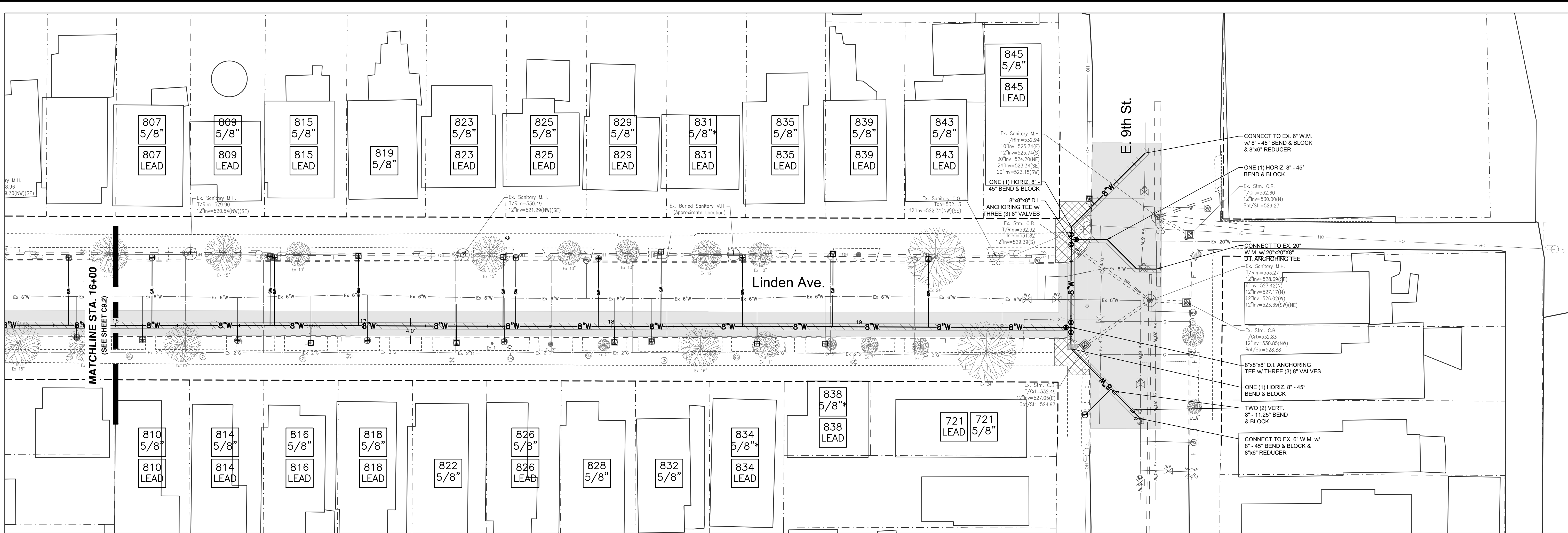
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**bayer
becker**
www.bayerbecker.com
209 Grandview Drive
Fort Mitchell, KY 41017 - 859.261.1113

Drawing:	22-0151 WM PHASE 3
Drawn by:	JMH
Checked By:	TRA
Issue Date:	02-23-24

Sheet: **C9.1**

Plot time: Jun 12, 2024 - 3:27pm
Drawing name: J:\2022\22-0151\C\VDWG\22-0151 WM Phase 3.dwg - Layout Tab: C9 Linden Ave.



WATER SERVICE LEGEND

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State Plane NAD83 (2011)

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Rob Thomas Keller
Professional Engineer
State of Kentucky
No. 21763

Date	Drawn	Chk	Revision Description
02-23-24	JMH	TFA	50% REVIEW SET TO NKWD
06-08-24	JMH	TFA	90% REVIEW SET TO NKWD
06-11-24	JMH	TFA	ISSUED FOR PERMIT

NEWPORT WATER MAIN REPLACEMENT - PHASE 3

CITY OF NEWPORT
CAMPBELL COUNTY, KENTUCKY

LINDEN AVENUE - STA. 14+25 TO END

Drawing: 22-0151 WM PHASE 3

Drawn by: JMH

Checked By: TFA

Issue Date: 02-23-24

Sheet: C9.3



NEWPORT WMR – PHASE 4

PHASE 4 OF WX21037311
CITY OF NEWPORT
CAMPBELL COUNTY, KENTUCKY

PUBLIC WORKS:
CITY OF NEWPORT PUBLIC WORKS
114 EATH 11TH STREET
NEWPORT, KENTUCKY 41071
(859) 292-3686

WATER:
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018
(859) 578-9898

SEWER:
SANITATION DISTRICT NO. 1
1045 EATON DRIVE
FORT WRIGHT, KENTUCKY 41011
(859) 578-7450

ELECTRIC:
DUKE ENERGY
1262 COX ROAD
ERLANGER, KENTUCKY 41018
(513) 287-3589

GAS:
DUKE ENERGY
1262 COX ROAD
ERLANGER, KENTUCKY 41018
(859) 287-5408

TELEPHONE:
CINCINNATI BELL TELEPHONE COMPANY
201 EAST FOURTH STREET
103-1175
CINCINNATI, OHIO 45202
(513) 566-7185

CABLE TELEVISION:
INSIGHT COMMUNICATIONS
7906 DIXIE HIGHWAY
FLORENCE, KENTUCKY 41076
(888) 735-0300


OTHER UTILITIES:
UNITED UTILITIES PROTECTION
(800) 752-6007

**ENGINEERING
LAND SURVEYING**
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE: (859) 581-9600
FAX: (859) 581-9636

CT: WATER MAIN PLAN
NEWPORT 2022 WATER MAIN REPLACEMENT
PHASE 4

NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD

P.O. BOX 18640
ERLANGER, KY 41018-0640

DRAWN BY:	SEAL
KGH	
CHECKED BY:	
KGH	
PROJECT MANAGER:	
KGH	

DATE	01-09-25
------	----------

SHEET

C-000

The map shows the Clifton, NJ area with the proposed Clifton Avenue extension highlighted in red. The extension starts from the city center and runs towards the Hudson River. Key locations and roads labeled include Clifton, Bellevue, Woodlawn, Fort Thomas, and various streets like Clifton Avenue, Grandview Avenue, Home Street, 21st Street, Joyce Avenue, and Truesdale Road. The map also shows the Hudson River, the New York State Thruway (I-287), and various local streets.

VICINITY MAP

SCALE: 1" = 2000'

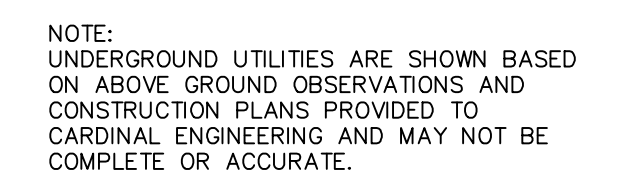
C-000
C-100
C-240
C-500
C-501-514

TITLE/VICINITY MAP
SPECIFICATION SHEET
DETAIL SHEET
OVERALL PROJECT MAP
PLAN AND PROFILE SHEETS

BENCHMARK INFORMATION

BASIS OF BEARINGS:
BEARING SYSTEM BASED ON THE KENTUCKY STATE PLANE
COORDINATE SYSTEM, NORTH ZONE (NAD 83) PERFORMED BY
CARDINAL ENGINEERING CORPORATION IN MARCH, 2020.

SOURCE OF ELEVATION:
VERTICAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF
1988, PER GPS OBSERVATIONS UTILIZING KENTUCKY CORS VIRTUAL
REFERENCE STATIONING (NAVD 88)



CONTRACTOR TO VERIFY LOCATION AND USE
CAUTION WHEN EXCAVATING IN AREAS OF
SUSPECTED BURIED UTILITIES.

1. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA); IT SHALL BE THE FULL AND COMPLETE RESPONSIBILITY OF THE CONTRACTOR TO MEET AND COMPLY WITH SAFETY REQUIREMENTS AND REGULATIONS AS ESTABLISHED BY OSHA OR ANY OTHER REGULATORY BODY. THE OWNER, CONTRACTOR, AND ANY OTHER PARTY SHALL NOT BE RESPONSIBLE FOR, AS THE CONTRACTOR HAS ACCEPTED FULL AND COMPLETE RESPONSIBILITY FOR PERFORMING SUCH INSPECTIONS FOR COMPLIANCE TO THE REGULATIONS. THE CONTRACTOR SHALL INDEMNIFY AND PROTECT AND HOLD HARMLESS THE OWNER AND ENGINEER FROM ANY LOSS, DAMAGE, COST, EXPENSE, AND REASONABLE ATTORNEY'S FEES INCURRED BY OSHA OR ANY SAFETY VIOLATION SUITS BROUGHT BY INJURED PERSONS AND/OR FINES LEVIED BY OSHA OR ANY OTHER REGULATORY BODY, AS A RESULT OF THE CONTRACTOR'S WORK.

1. CONTRACTOR SHALL NOTIFY KENTUCKY UTILITIES PROTECTION SERVICE AND ALL ENTITIES NOT COVERED BY UTILITY PROTECTION SERVICE AT LEAST (2) DAYS PRIOR TO THE START OF CONSTRUCTION OR ANY EARTHWORK OPERATIONS.
2. WATER SERVICE VALVES TO BE LOCATED AND INSTALLED AS DIRECTED BY THE NORTHERN KENTUCKY WATER DISTRICT.
3. ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE, AND ARE TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL IN ACCORDANCE WITH SANITATION DISTRICT NO. 1'S BEST MANAGEMENT PRACTICES.
4. CLSM (CONTROLLED LOW STRENGTH MORTAR) SHALL BE PER KYTC SPECIFICATION 601.03.03.
5. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS FOR PERMITS, LICENSES, FEES & TAXES AND PAY ALL ASSOCIATED COSTS.
6. CONTRACTOR SHALL COORDINATE CONSTRUCTION WITH OWNER. PROVIDE BARRICADES, LIGHTING, SIGNS & MARKERS AS REQUIRED TO PROTECT VEHICULAR & PEDESTRIAN TRAFFIC. MAINTAIN FACILITY SECURITY AS DIRECTED BY OWNER.
7. BOUNDARY INFORMATION BASED ON DEEDS AND PLATS OF RECORD.
8. TOPOGRAPHIC INFORMATION BASED ON A FIELD SURVEY PERFORMED BY CARDINAL ENGINEERING CORPORATION.
9. UTILITY CROSSING (VERTICAL) CONFLICTS SHALL BE RESOLVED ACCORDING TO THE FOLLOWING RULES AND HIERARCHY: SANITARY HAS FIRST PRIORITY, STORM HAS SECOND PRIORITY, DUE TO BOTH BEING GRAVITY SYSTEMS. NO OTHER UTILITY SHALL BE INSTALLED TO CONFLICT WITH STORM AND SANITARY. ALL OTHER UTILITIES NEED TO COORDINATE CLEARANCES AND LOCATIONS WITH EACH OTHER, CITY INSPECTOR, AND PUBLIC UTILITY, WITH THE PRIORITY GIVEN TO SPECIFIC PLAN NOTES FOR INDIVIDUAL CROSSINGS. LAST PRIORITY SHALL BE BASED ON ORDER OF INSTALLATION, WITH ALL WORK ADHERING TO MINIMUM COVER AND CLEARANCES. MAINTAIN 18-INCH MINIMUM CLEARANCE TYPICAL BETWEEN ALL UTILITIES AT CROSSINGS.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES FROM DAMAGE, REGARDLESS OF WHETHER THEY ARE SHOWN ON THE PLANS. IF DAMAGE IS CAUSED, THE CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND/OR RESTORATION OF SAME TO THE SATISFACTION OF THE ENGINEER AND/OR NORTHERN KENTUCKY WATER DISTRICT.
11. THE CONTRACTOR SHALL TAKE OVER AND ASSUME ALL RESPONSIBILITY FOR THE ENTIRE PREMISES, MAINTAIN ALL EXISTING PROTECTIONS, AND SHALL PROVIDE AND MAINTAIN SUITABLE TEMPORARY SIDEWALKS, FENCES, OR OTHER STRUCTURES AS MAY BE REQUIRED BY LAW SO AS NOT TO OBSTRUCT OR INTERFERE WITH TRAFFIC IN PUBLIC STREETS, ALLEYWAYS, OR PRIVATE RIGHT OF WAYS; LEAVE AN UNOBSTRUCTED WAY ALONG PUBLIC AND PRIVATE PLACES FOR TRAVELERS, TRUCKS, ETC. LEAVE AN ACCESS TO HYDRANTS, PROVIDE WALKS OVER OR AROUND OBSTRUCTIONS MADE IN A PUBLIC PLACE IN CARRYING ON THE CONTRACT, AND TO MAINTAIN FROM THE BEGINNING OF TWILIGHT THROUGHOUT THE WHOLE OF EVERY NIGHT SUFFICIENT LIGHT AND GUARDS TO PROTECT TRAVELERS FROM INJURY THEREBY. THE CONTRACTOR IS RESPONSIBLE FOR ALL EQUIPMENT AND MATERIAL SUPPLIED BY THE OWNER AND PLACED ON PREMISES.
12. BEFORE ORDERING ANY MATERIAL OR PERFORMING ANY WORK, EACH CONTRACTORS SHALL VERIFY ALL MEASUREMENTS AND SHALL BE RESPONSIBLE FOR SAME. NO EXTRA CHARGE WILL BE ALLOWED OR COMPENSATION ALLOWED ON ACCOUNT OF DIFFERENCE TO ACTUAL DIMENSIONS AND THE MEASUREMENTS INDICATED ON THE PLANS AND ANY DIFFERENCE WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CORRECTION BEFORE PROCEEDING WITH WORK.
13. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT OF HIS OWN WORK. THE OWNER WILL PROVIDE AN ACCESSIBLE BENCHMARK ON OR NEAR THE SITE. ANY CONTRACTOR WHICH DAMAGES, DESTROYS OR DISTURBS ANY BOUNDARY MARKER OR BENCHMARK SHALL AT HIS EXPENSE, HAVE SAID MARKER REPLACED BY A LAND SURVEYOR LICENSED TO PRACTICE IN THE COMMONWEALTH OF KENTUCKY.
14. THE CONTRACTOR SHALL CAREFULLY PROTECT ALL TREES, SHRUBS, AND LAWNS FROM INJURY DURING THE COURSE OF HIS WORK AND PAY FOR ANY DAMAGE TO SAME RESULTING FROM INSUFFICIENT OR IMPROPER PROTECTION. TREES AND BUSHES SHALL ONLY BE REMOVED AS DIRECTED BY THE ENGINEER.
15. THE CONTRACTOR SHALL SUPPLY THE ENGINEER AND NORTHERN KENTUCKY WATER DISTRICT WITH A SET OF FIELD NOTES IN SUFFICIENT DETAIL UPON COMPLETION OF THE PROJECT FOR RECORD DRAWING PREPARATION.
16. ALL CONSTRUCTION TO CONFORM TO THE CURRENT NORTHERN KENTUCKY WATER DISTRICT SPECIFICATIONS AND DETAILS. CONTRACTOR SHALL OBTAIN A COPY OF SAID STANDARD SPECIFICATIONS AND DRAWINGS FROM THE DISTRICT.
17. UTILITIES BASED ON MARKINGS PROVIDED BY KENTUCKY UTILITY PROTECTION SERVICES, UTILITY DRAWINGS AND ABOVE-GROUND EVIDENCE.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE OF TRAFFIC DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE CITY OF NEWPORT PUBLIC WORKS AND GOVERNING FIELD DISTRICT.
19. AT ANY LOCATION WHERE THE EXISTING MAIN IS CUT AND ABANDONED THE PIPE END WILL BE PROPERLY SEALED AS DIRECTED BY THE INSPECTOR.
20. ALL PAVING/DRAINAGE CONSTRUCTION MATERIALS SHALL BE IN ACCORDANCE WITH THE MOST CURRENT KENTUCKY STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION MANUAL.

PETROLEUM PRODUCTS

A. ALL ON-SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCES OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS, WHICH ARE CLEARLY LABELED. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS. SECONDARY CONTAINMENT SHALL BE PROVIDED FOR ALL FUEL OIL STORAGE TANKS. THESE AREAS MUST BE INSPECTED EVERY SEVEN DAYS AND WITHIN 24 HRS. OF A 0.5 INCH OR GREATER RAIN EVENT TO ENSURE THERE ARE NO EXPOSED MATERIALS WHICH WOULD CONTAMINATE STORM WATER. SITE OPERATORS MUST BE AWARE THAT SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) REQUIREMENTS MAY APPLY. AN SPCC PLAN IS REQUIRED AND SHALL BE PREPARED BY THE PROVIDED BY THE CONTRACTOR IF FOR ONE SINGLE ABOVEGROUND TANK OF 660 GALLONS OR MORE, ACCUMULATIVE ABOVEGROUND STORAGE OF 1330 GALLONS OR MORE, OR 42,000 GALLONS OF UNDERGROUND STORAGE. SOILS THAT HAVE BECOME CONTAMINATED MUST BE PROPERLY DISPOSED.

B. ANY ASPHALT SUBSTANCES USED ON-SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS

A. FERTILIZERS USED WILL ONLY BE APPLIED IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE OF SAID FERTILIZER WILL BE COMPLETELY COVERED. THE CONTENTS OF ANY PARTIALLY USED BAGS OR CONTAINERS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC CONTAINER TO AVOID SPILLS.

DEBRIS

A. DEBRIS SHALL BE COLLECTED WITHIN PROPERTY LIMITS WEEKLY OR AS NEEDED FOR PUBLIC SAFETY. SURROUNDING STREETS AFFECTED BY THE CONSTRUCTION SHALL BE CLEANED DAILY OR AS NEEDED FOR PUBLIC SAFETY.

BEST MANAGEMENT PRACTICES

A. BEST MANAGEMENT PRACTICES (BMPs) AS PRESENTED IN THE CURRENT SD1 BEST MANAGEMENT PRACTICES MANUAL SHALL BE FOLLOWED ON THE SITE AT ALL TIMES. A COPY OF THIS MANUAL SHALL BY ONSITE AT ALL TIMES.

TRAFFIC CONTROL

A. THE CONTRACTOR IS REQUIRED TO PROVIDE TRAFFIC CONTROL FOR THE EXPORTING OF MATERIAL FROM THE SITE.

1. THE CONTRACTOR SHALL CONTACT THE COMPANY PRIOR TO EXCAVATION IN VICINITY OF EXISTING UNDERGROUND FACILITIES (APPROXIMATE PLAN LOCATION SHOWN) OR WHEN WORKING NEAR OVERHEAD ELECTRIC FACILITIES.
 - a. FOR FIELD INSPECTOR TO LOCATE UNDERGROUND ELECTRIC LINE IN KENTUCKY CALL "KENTUCKY UNDERGROUND PROTECTION INC." 1-800-752-6007 (AT LEAST 48 HOURS IN ADVANCE), EXCLUDING HOURS, SAT. SUN. & STATE LEGAL HOLIDAYS.
 - b. FOR NOTIFICATION OF CONSTRUCTION ACTIVITY NEAR ENERGIZED ELECTRIC FACILITIES, CALL 287-3426, OR THE ELECTRIC TECHNICIAN, IF KNOWN, THAT HAS BEEN ASSIGNED TO YOUR PROJECT AT LEAST 48 HOURS IN ADVANCE.
 - c. FOR ADDITIONAL UNDERGROUND ELECTRIC RECORD INFORMATION, CALL 287-2454.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO ELECTRIC FACILITIES DURING CONSTRUCTION.
3. ELECTRIC FACILITIES TO BE KEPT IN SERVICE AT ALL TIMES.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORTING EXISTING ELECTRIC FACILITIES AFFECTED BY THE PROPOSED CONSTRUCTION.
 - a. WHERE HIGH PRESSURE OIL FILLED PIPE TYPE CABLE INSTALLATION ARE EXPOSED OR OTHERWISE INTERFERED WITH BY THE CONTRACTOR, PROTECTION BY THE CONTRACTOR WILL BE REQUIRED AGAINST DAMAGE TO THE COATING OR SURROUNDING THERMAL SAND ENVELOPE.
 - b. WHERE CONCRETE ENCASED CONDUIT SYSTEMS OR DIRECT BURIED CABLE SYSTEMS ARE EXPOSED OR OTHERWISE INTERFERED WITH, THE CONTRACTOR SHALL PROTECT THE SYSTEM AS NECESSARY AGAINST DAMAGE. AS SOON AS FEASIBLE, THE CONTRACTOR SHALL TAKE ADDITIONAL APPROPRIATE STEPS TO PROVIDE PERMANENT MEASURES TO RESTORE SUPPORT. THE METHODS USED SHALL BE BASED ON CONDITIONS TO BE DETERMINED BY THE UTILITY.
 - c. WHERE POLES OR ANCHORS THAT SUPPORT OVERHEAD ELECTRIC FACILITIES ARE EXPOSED OR OTHERWISE INTERFERED WITH, THE CONTRACTOR PROTECT THEM FROM DAMAGE AND PROVIDE TEMPORARY SUPPORT TO INSURE THE INTEGRITY OF THE SYSTEM. AS SOON AS FEASIBLE, THE CONTRACTOR SHALL TAKE ADDITIONAL APPROPRIATE STEPS TO PROVIDE PERMANENT MEASURES TO RESTORE SUPPORT. THE METHODS USED SHALL BE BASED ON CONDITIONS TO BE DETERMINED BY THE UTILITY.
 - d. WHERE THE DEPTH OF EXCAVATION FOR THE PROPOSED WORK IS GREATER THAN FIVE (5) FEET, THE CONTRACTOR SHALL SHEET AND SHORE THE TRENCH TO CONTINUOUSLY MAINTAIN THE SUPPORT OF ELECTRIC FACILITIES AT LOCATION WHERE THE ELECTRIC FACILITIES ARE WITHIN THE ZONE OF INFLUENCE ADJACENT TO THE EXCAVATION AS DETERMINED BY THE NATURAL ANGLE OF REPOSE OF THE SOIL.
 - e. ALL DAMAGE TO ELECTRIC FACILITIES AND SERVICES REQUIRING ADJUSTMENTS, RELOCATION'S AND/OR REPAIRS WILL BE MADE AT THE CONTRACTOR'S COST.
 - f. CONTRACTOR SHALL NOT BACKFILL EXPOSED ELECTRIC FACILITIES UNTIL THE COMPANY HAS INSPECTED ITS FACILITY OR PERFORMED ANY ADJUSTMENTS AND/OR MAINTENANCE THAT MAY BE REQUIRED.
 - g. SHOULD CONTRACTOR DAMAGE ELECTRIC FACILITIES, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ELECTRIC TROUBLE AT 651-4182. CONTRACTOR SHALL KEEP EVERYONE CLEAR OF DAMAGED ELECTRIC FACILITIES UNTIL COMPANY PERSONNEL ARRIVE AT THE WORK SITE.

1. THE NORTHERN KENTUCKY WATER DISTRICT WILL PAY FOR AND OBTAIN ALL PERMITS FROM LOCAL JURISDICTIONS, IF REQUIRED.
2. CONTRACTOR SHALL PROVIDE CITY OF NEWPORT A PRECONSTRUCTION VIDEO OF ALL AFFECTED STREETS (CONSTRUCTION COORDINOR) PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. THE CONTRACTOR SHALL NOTIFY THE CITY OF NEWPORT THREE (3) DAYS PRIOR TO CONSTRUCTION.
4. ANY DAMAGE TO THE CORRIDOR STREETS, ESPECIALLY PAVEMENT EDGES, DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR IN ACCORDANCE WITH THE GOVERNING JURISDICTION STANDARDS.
5. ALL PAVEMENT CUTS SHALL BE SAW CUT AND NEATLY PATCHED TO MATCH EXISTING PAVEMENT SECTION. ALL COSTS FOR SUCH PAVEMENT CUTS, PATCHING, AND OVERLAYS AS REQUIRED SHALL BE INCLUDED IN THE CONTRACTOR'S BID.
6. CONTRACTOR SHALL RESTORE DISTURBED PAVEMENT AFTER CONSTRUCTION, SHALL MINIMIZE INCONVENIENCE TO TRAFFIC DURING CONSTRUCTION, AND SHALL PROVIDE SMOOTH TRANSITIONS TO EXISTING PAVEMENT. PAVING MATERIALS AND CONSTRUCTION THEREOF SHALL BE IN ACCORDANCE WITH CITY OF NEWPORT SPECIFICATIONS.
7. CONSTRUCTION ACCESS ROADS, EXISTING PAVEMENT OR GRAVEL ROADS, AND DRIVEWAYS IF REMOVED, DISTURBED, OR DAMAGED BY CONTRACTOR'S WORK SHALL BE MAINTAINED BY CONTRACTOR AND RESTORED OR REPLACED TO EXISTING OR BETTER THAN PRE-CONSTRUCTION CONDITIONS AFTER WORK IS COMPLETE. THE COST OF THIS RESTORATION OR REPLACEMENT SHALL BE INCLUDED IN THE TOTAL COST FOR THE PROJECT. NO ADDITIONAL PAYMENT WILL BE MADE.
8. OUTSIDE OF APPROVED ROAD CUTS, THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PREVENT DAMAGE TO THE STREETS, ESPECIALLY THE JOYCE AVENUE, 21ST STREET, TRUESDALE ROAD, AMELIA STREET, HOME STREET, 10TH STREET, AND GRANDVIEW ROAD PAVEMENTS DURING CONSTRUCTION. IF ANY DAMAGE DOES OCCUR DURING CONSTRUCTION, THE CONTRACTOR, AT HIS/HER EXPENSE, SHALL REPAIR SAID DAMAGE TO THE SATISFACTION OF THE GOVERNING JURISDICTION.
9. CONTRACTOR SHALL PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN TO THE CITY OF NEWPORT PRIOR TO CONSTRUCTION.

- A. COMPLY WITH REQUIREMENTS OF KENTUCKY PLUMBING CODE (WHERE APPLICABLE) AND NORTHERN KENTUCKY WATER DISTRICT (NKWD). INCLUDE TAPPING OF WATER MAINS AND BACKFLOW PREVENTION.
- B. COMPLY WITH STANDARDS OF AUTHORITIES HAVING JURISDICTION FOR POTABLE WATER-SERVICE PIPING, INCLUDING MATERIALS, INSTALLATION, TESTING, AND DISINFECTION.
- C. WATER SERVICES: WATER SERVICE LINES SHALL BE INSTALLED WITHOUT EXCAVATING HIGHWAY OR PUBLIC STREET PAVEMENT. ANY DAMAGE TO SAID AREAS IS TO BE REPAIRED TO THE SATISFACTION OF THE CITY OF NEWPORT. COSTS FOR PAVEMENT RESTORATION REQUIRED AS A RESULT OF SERVICE INSTALLATION SHALL BE INCLUDED IN ITEMS 10.01, 10.02, AND/OR 10.03.
- D. ABANDONED VALVE BOXES: REMOVE LID AND RETURN TO NKWD. FILL VOID WITH CONCRETE. WORK IS INCIDENTAL TO WATER MAIN CONSTRUCTION.
- E. THE WATER MAIN TRENCH EXCAVATIONS THROUGHOUT THE PROJECT MUST BE MADE IN A MANNER THAT PROVIDES FOR THE SAFETY OF WORKERS IN THE EXCAVATIONS AND PROTECTS EXISTING GROUND, PAVEMENT, STRUCTURES, AND INFRASTRUCTURE ADJACENT TO THE EXCAVATIONS FROM DAMAGE, INCLUDING BUT NOT LIMITED TO NEARBY UNDERGROUND ELECTRIC, TELEPHONE, GAS, STORM SEWERS SANITARY SEWERS AND OVERHEAD UTILITIES. THE EXCAVATIONS SHOULD BE BRACED, SHORED, SLOPED OR OTHERWISE STABILIZED IN A MANNER THAT SATISFIES ALL SAFETY CONCERNS AND ALL FEDERAL, STATE AND LOCAL REGULATIONS. THE RESPONSIBILITY OF MAINTAINING SAFE WORKING CONDITIONS IN THE EXCAVATIONS AND FOR PROTECTING GROUND, STRUCTURES AND INFRASTRUCTURE ADJACENT TO THE EXCAVATIONS IS THE CONTRACTOR'S. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE STABILITY OF THE EXISTING INFRASTRUCTURE DURING THE PROPOSED WATER MAIN INSTALLATION PROCESS.

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WEBSITE: <http://www.cardinalengineering.net>

WATER MAIN PLAN
NEWPORT 2022 WATER MAIN REPLACEMENT
PHASE 4

HERN KENTUCKY WATER DISTRICT
3335 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

PROJECT:

CLIENT:

DRAWN BY: KGH	SEARCHED
CHECKED BY: —	
PROJECT MANAGER: KGH	

PROJECT NO. 22-125

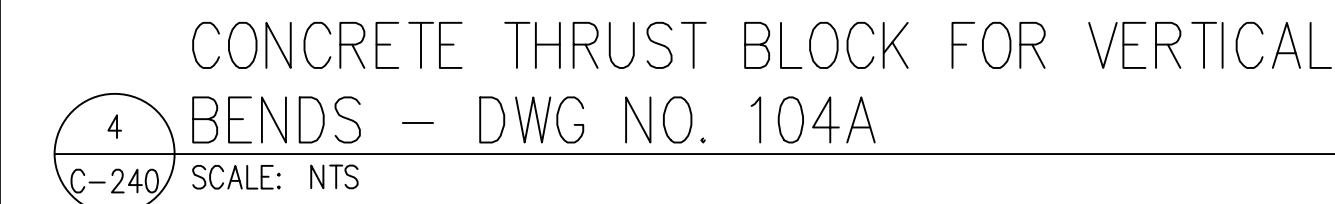
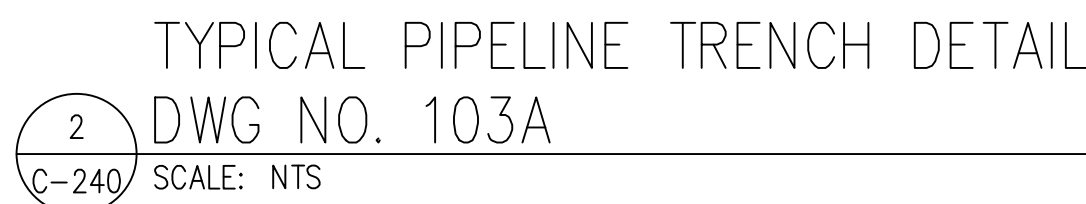
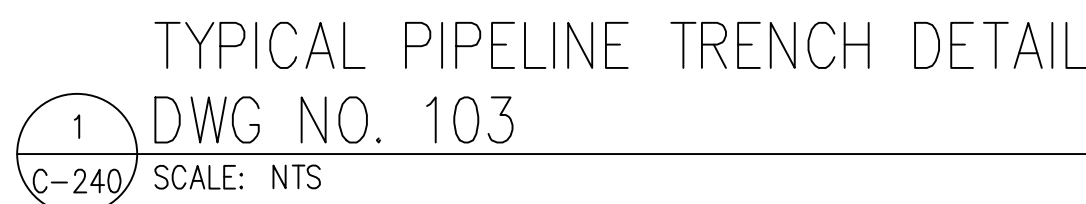
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DATE 01-09-25

SPECIFICATIONS

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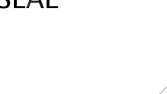
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WEBSITE: <http://www.cardinalengineering.net>

PROJECT: WATER MAIN PLAN
NEWPORT 2022 WATER MAIN REPLACEMENT
PHASE 4

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

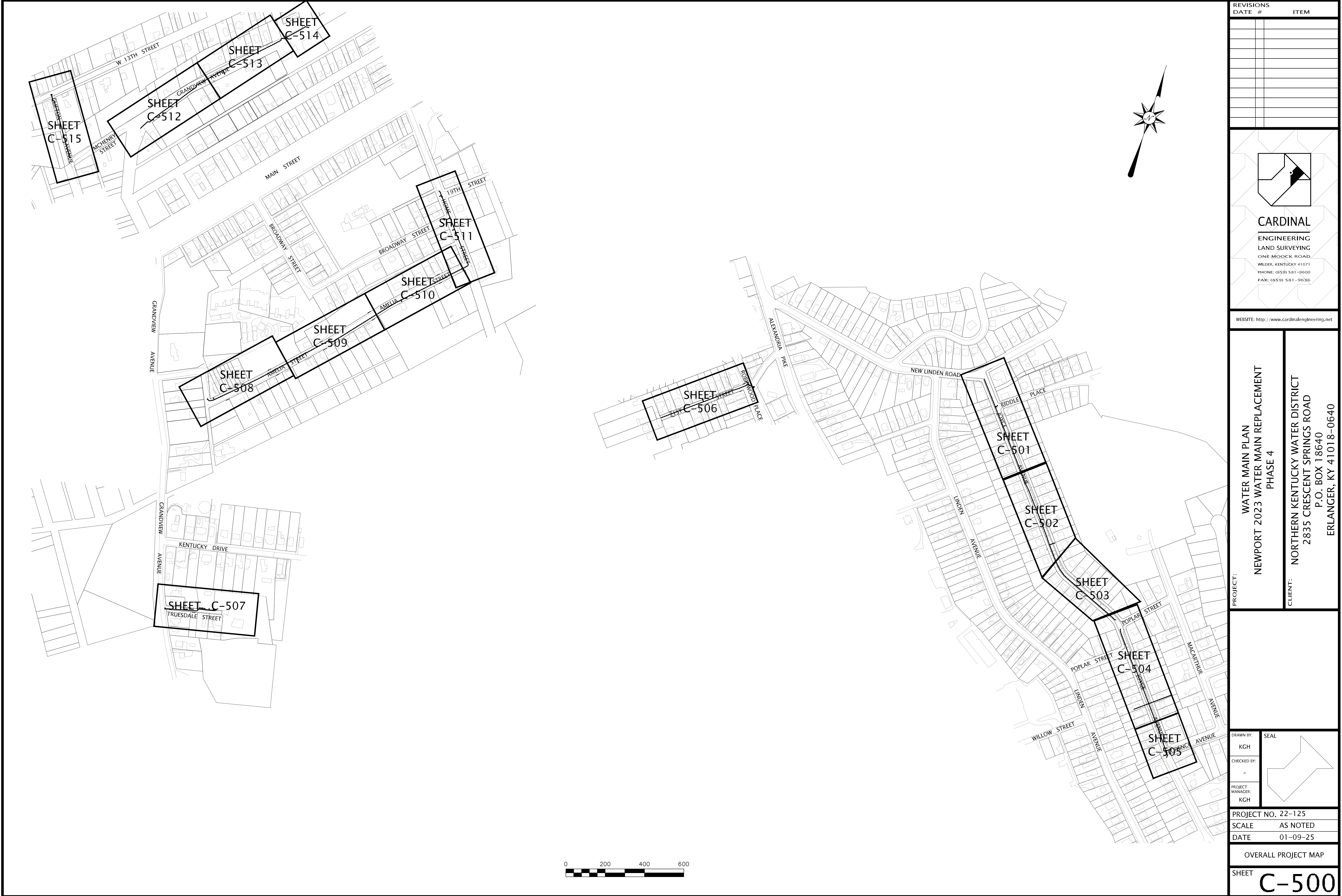
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PROJECT MANAGER: KGH	

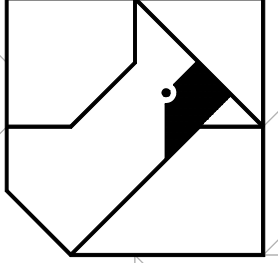
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SCALE	AS NOTED
DATE	01-09-25

WATER DETAILS

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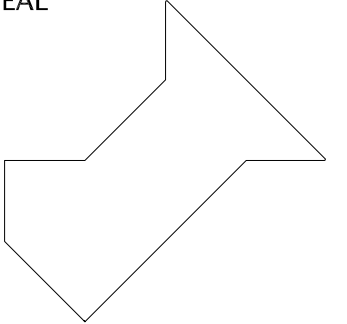
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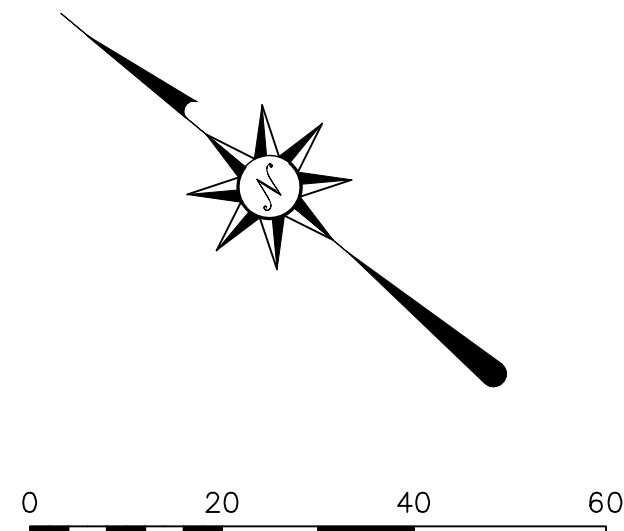
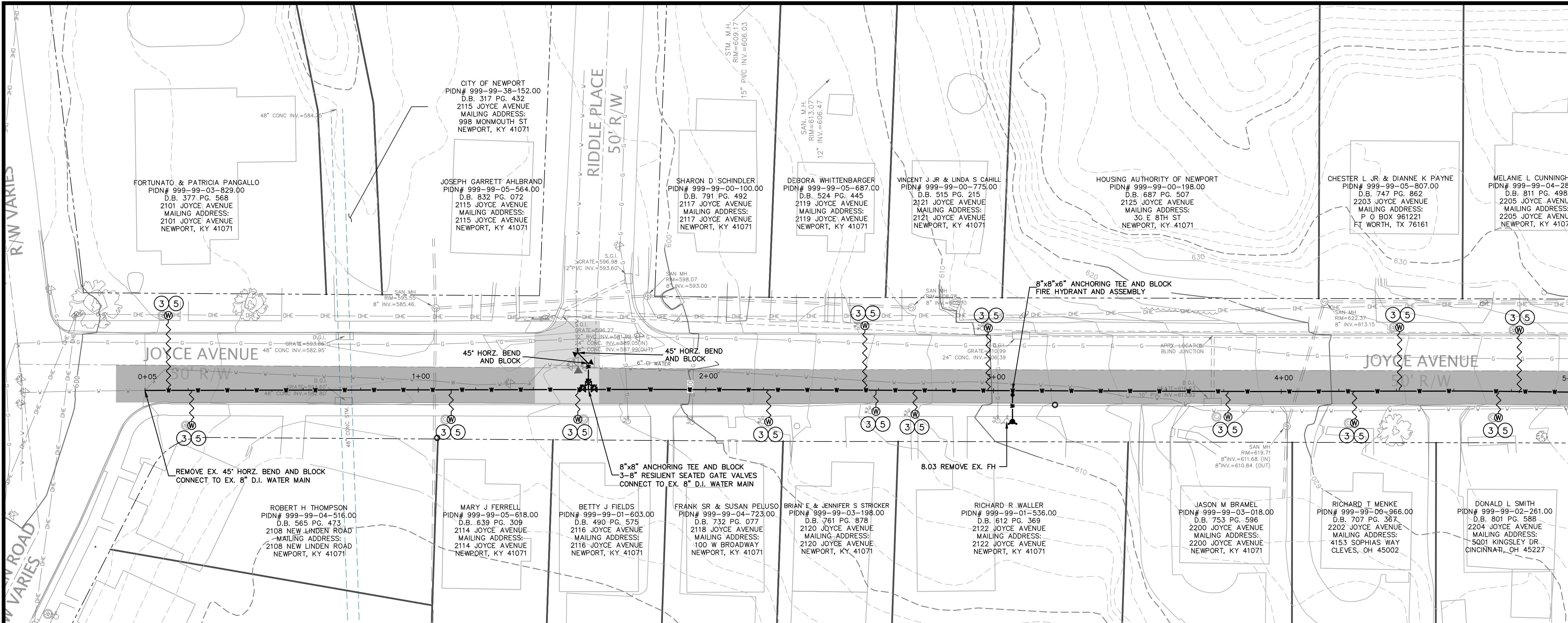
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PROJECT:	WATER MAIN PLAN NEWPORT 2023 WATER MAIN REPLACEMENT PHASE 4
	CLIENT: NORTHERN KENTUCKY WATER DISTRICT 2835 CRESCENT SPRINGS ROAD P.O. BOX 18640 ERLANGER, KY 41018-0640

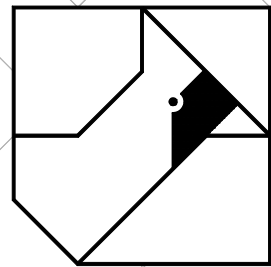
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PROJECT MANAGER: KGH	

PROJECT NO. 22-125	
SCALE	AS NOTED
DATE	01-09-25
OVERALL PROJECT MAP	
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DATE	#	



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WATER MAIN PLAN
NEWPORT 2023 WATER MAIN REPLACEMENT

PHASE 4

NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

PROJECT:

CLIENT:

WATER MAIN CONSTRUCTION NOTES

1. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF THE EXISTING WATER MAIN AND OTHER EXISTING UTILITIES PRIOR TO COMMENCING WORK. ANY ADJUSTMENTS NEEDED TO AVOID POTENTIAL CONFLICTS SHALL BE AS DIRECTED BY THE NKWD AND THE ENGINEER.
2. CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING ALL SANITARY SEWER LATERALS AND GAS SERVICES PRIOR TO COMMENCING WORK AND SHALL MAINTAIN SAID SERVICES DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY SEWER LATERALS AND/OR GAS SERVICES THAT ARE DAMAGED DURING CONSTRUCTION AT THEIR EXPENSE.
3. CONTRACTOR SHALL INSTALL ALL NEW WATER METERS WITHIN THE PUBLIC RIGHT-OF-WAY. FINAL METER LOCATIONS SHALL BE FIELD VERIFIED BY THE NKWD.
4. THE COST OF TESTING THE MAIN, TEMPORARY FLUSHING DEVICES, TEMPORARY PLUG AND BLOCKS, AND ABANDONING THE EXISTING WATER MAIN SHALL BE INCIDENTAL TO THE PROJECT.
5. REMOVAL AND REPLACEMENT OF MAILBOXES, LANDSCAPING, HARDSCAPING, ETC. IS INCIDENTAL TO THE PROJECT.
6. ALL 2" AND SMALLER SERVICE LINES ARE TO BE COPPER. THE NKWD WILL PROVIDE THE MATERIAL FOR THE UTILITY OWNED SIDE OF THE SERVICE. THE CONTRACTOR TO PROVIDE THE MATERIAL FOR THE CUSTOMER OWNED SIDE OF THE SERVICE.
7. THE CONTRACTOR SHALL ADJUST ALL WATER METERS TO GRADE UPON COMPLETION OF THE ROADWAY WORK AND PRIOR TO FINAL RESTORATION. THE COST TO ADJUST NEW METERS TO GRADE SHALL BE INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL PAYMENT WILL BE MADE.

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PROJECT

MANAGER:

KGH

PROJECT NO. 22-125

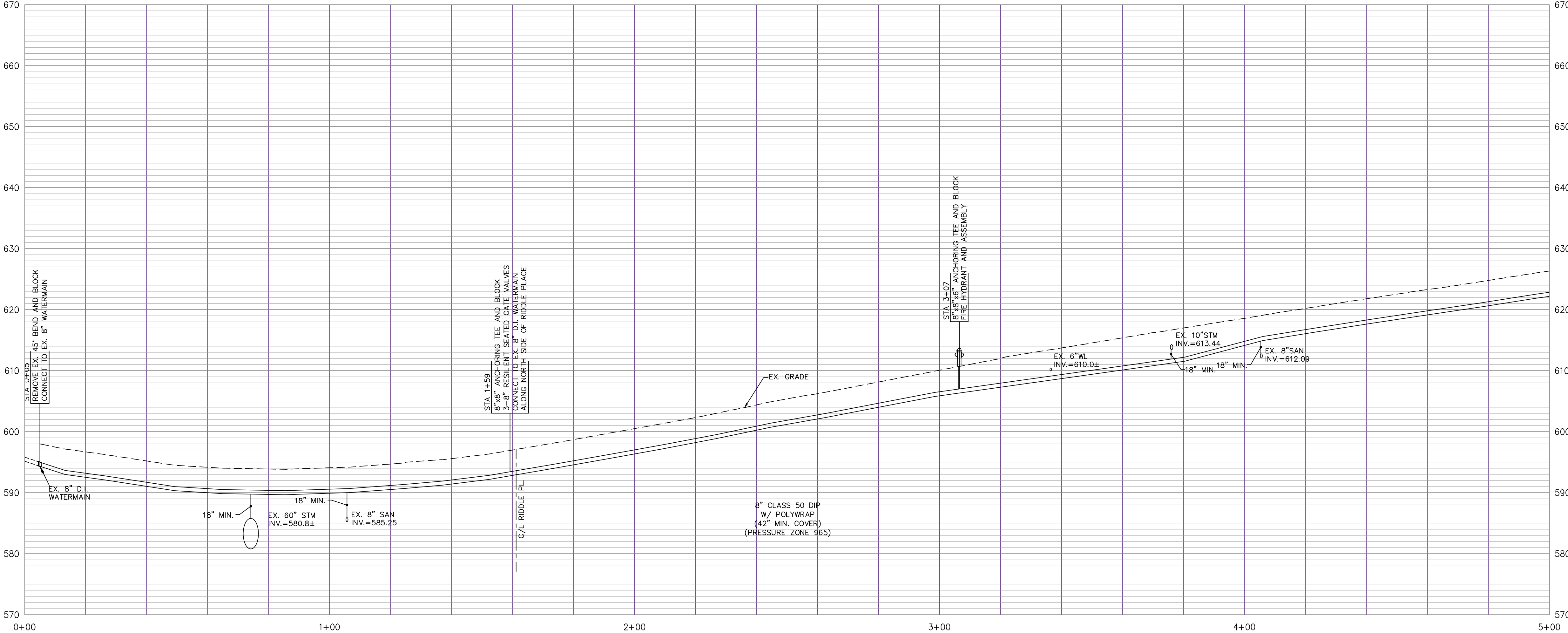
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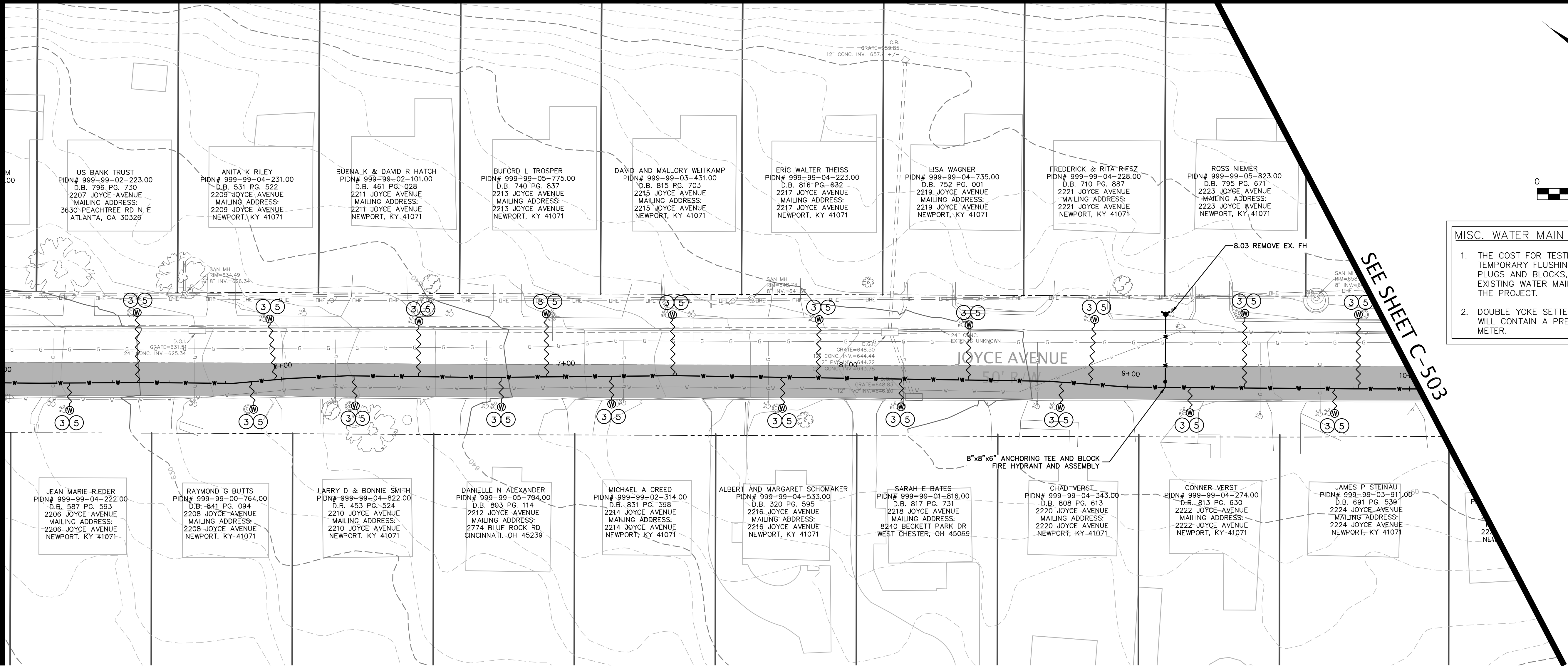
PLAN & PROFILE

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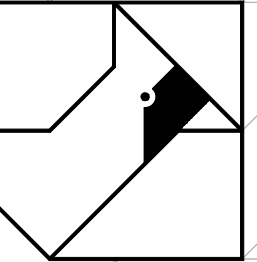
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MISC. WATER MAIN CONSTRUCTION NOTE

1. THE COST FOR TESTING THE WATER MAIN, TEMPORARY FLUSHING DEVICES, TEMPORARY PLUGS AND BLOCKS, AND ABANDONING THE EXISTING WATER MAIN SHALL BE INCIDENTAL TO THE PROJECT.
2. DOUBLE YOKE SETTER WILL BE REQUIRED AND WILL CONTAIN A PRESSURE REDUCER AND THE METER.

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WATER MAIN PLAN
NEWPORT 2023 WATER MAIN REPLACEMENT
PHASE 4

NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

PROJECT:

CLIENT:

WATER MAIN CONSTRUCTION NOTES

1. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF THE EXISTING WATER MAIN AND OTHER EXISTING UTILITIES PRIOR TO COMMENCING WORK. ANY ADJUSTMENTS NEEDED TO AVOID POTENTIAL CONFLICTS SHALL BE AS DIRECTED BY THE NKWD AND THE ENGINEER.
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3. CONTRACTOR SHALL INSTALL ALL NEW WATER METERS WITHIN THE PUBLIC RIGHT-OF-WAY. FINAL METER LOCATIONS SHALL BE FIELD VERIFIED BY THE NKWD.
4. THE COST OF TESTING THE MAIN, TEMPORARY FLUSHING DEVICES, TEMPORARY PLUG AND BLOCKS, AND ABANDONING THE EXISTING WATER MAIN SHALL BE INCIDENTAL TO THE PROJECT.
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DRAWN BY:

KGH

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PROJECT MANAGER:

KGH

SEAL

PROJECT NO. 22-125

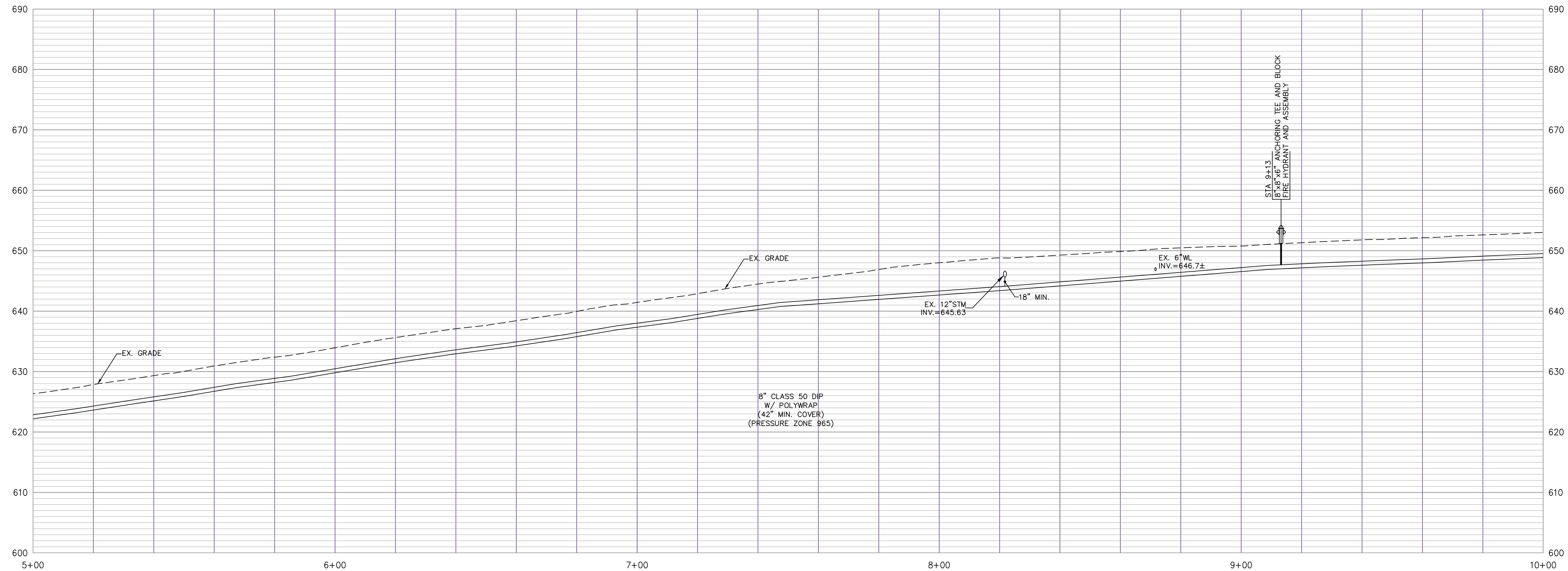
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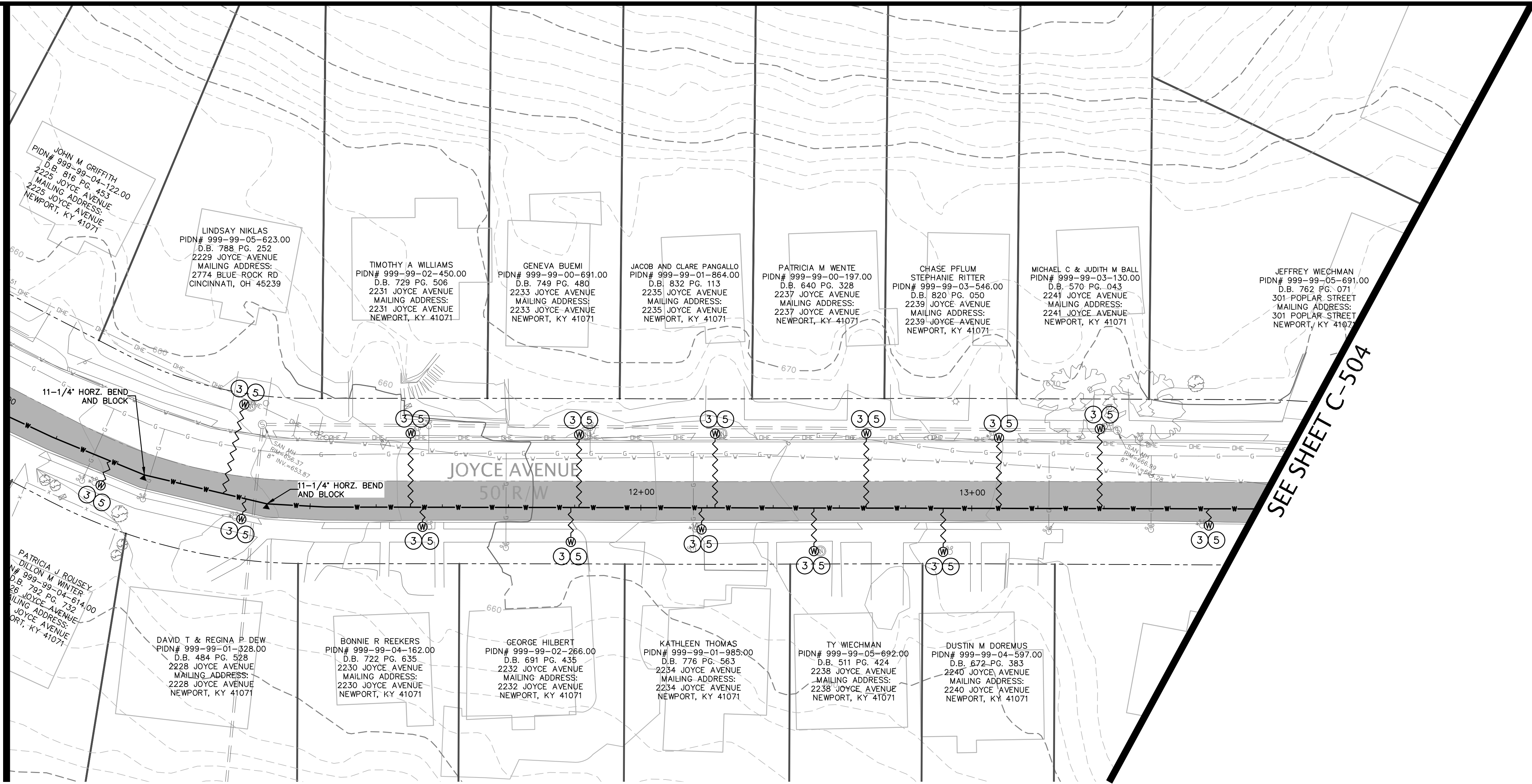
PLAN & PROFILE

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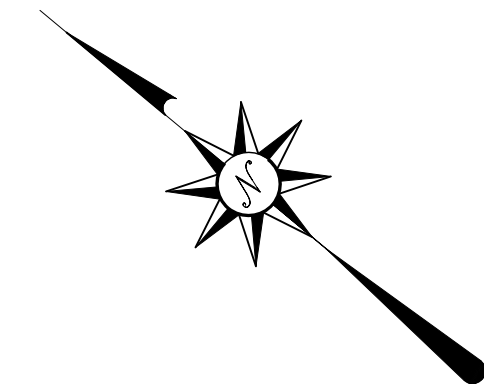
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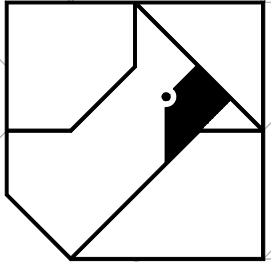


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MISC. WATER MAIN CONSTRUCTION NOTE

1. THE COST FOR TESTING THE WATER MAIN, TEMPORARY FLUSHING DEVICES, TEMPORARY PLUGS AND BLOCKS, AND ABANDONING THE EXISTING WATER MAIN SHALL BE INCIDENTAL TO THE PROJECT.
2. DOUBLE YOKE SETTER WILL BE REQUIRED AND WILL CONTAIN A PRESSURE REDUCER AND THE METER.



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WATER MAIN PLAN
NEWPORT 2023 WATER MAIN REPLACEMENT
PHASE 4

NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

PROJECT:

CLIENT:

WATER MAIN CONSTRUCTION NOTES

1. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF THE EXISTING WATER MAIN AND OTHER EXISTING UTILITIES PRIOR TO COMMENCING WORK. ANY ADJUSTMENTS NEEDED TO AVOID POTENTIAL CONFLICTS SHALL BE AS DIRECTED BY THE NKWD AND THE ENGINEER.
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3. CONTRACTOR SHALL INSTALL ALL NEW WATER METERS WITHIN THE PUBLIC RIGHT-OF-WAY. FINAL METER LOCATIONS SHALL BE FIELD VERIFIED BY THE NKWD.
4. THE COST OF TESTING THE MAIN, TEMPORARY FLUSHING DEVICES, TEMPORARY PLUG AND BLOCKS, AND ABANDONING THE EXISTING WATER MAIN SHALL BE INCIDENTAL TO THE PROJECT.
5. REMOVAL AND REPLACEMENT OF MAILBOXES, LANDSCAPING, HARDSCAPING, ETC. IS INCIDENTAL TO THE PROJECT.
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DRAWN BY:

SEAL

KGH

CHECKED BY:

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PROJECT MANAGER:

KGH

PROJECT NO. 22-125

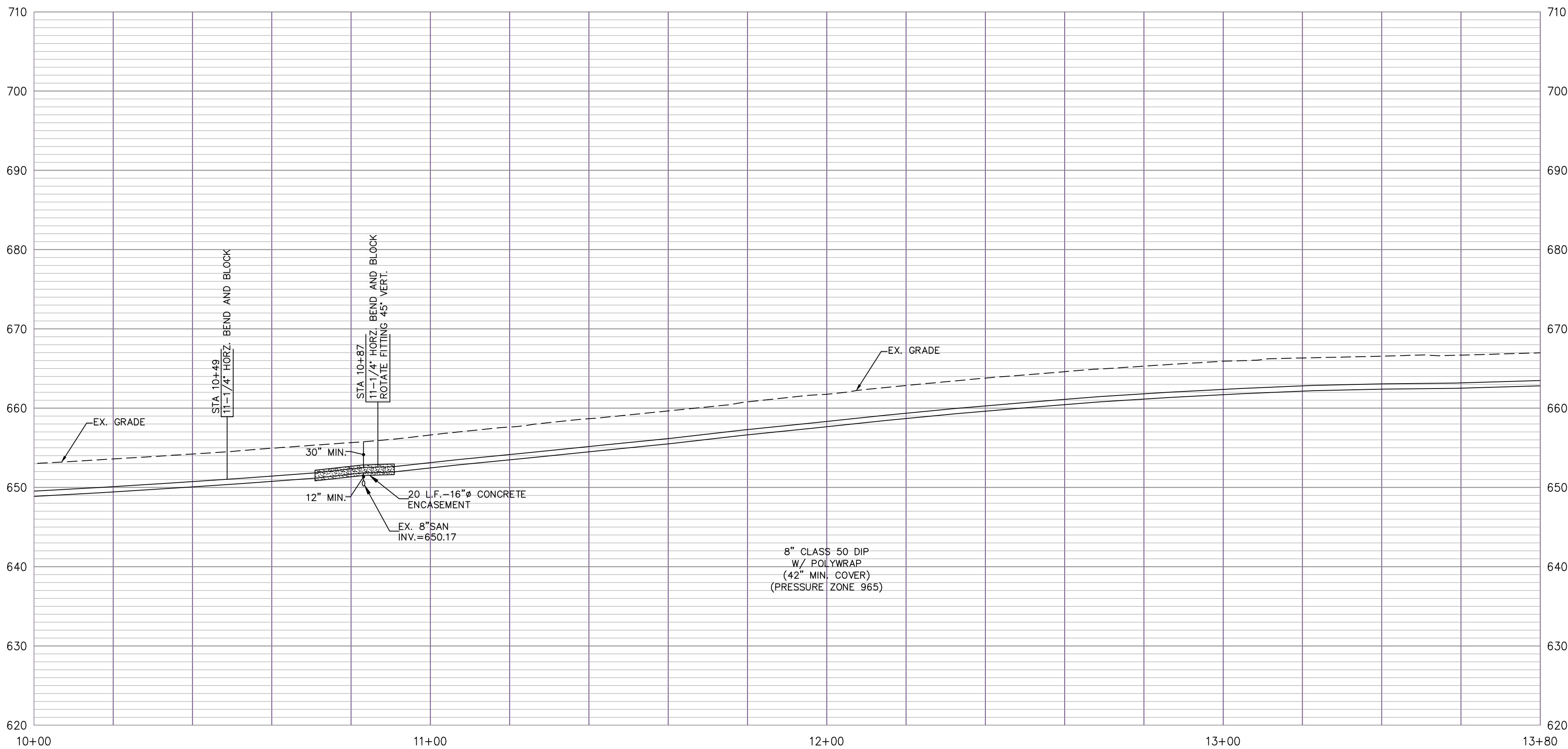
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DATE 01-09-25

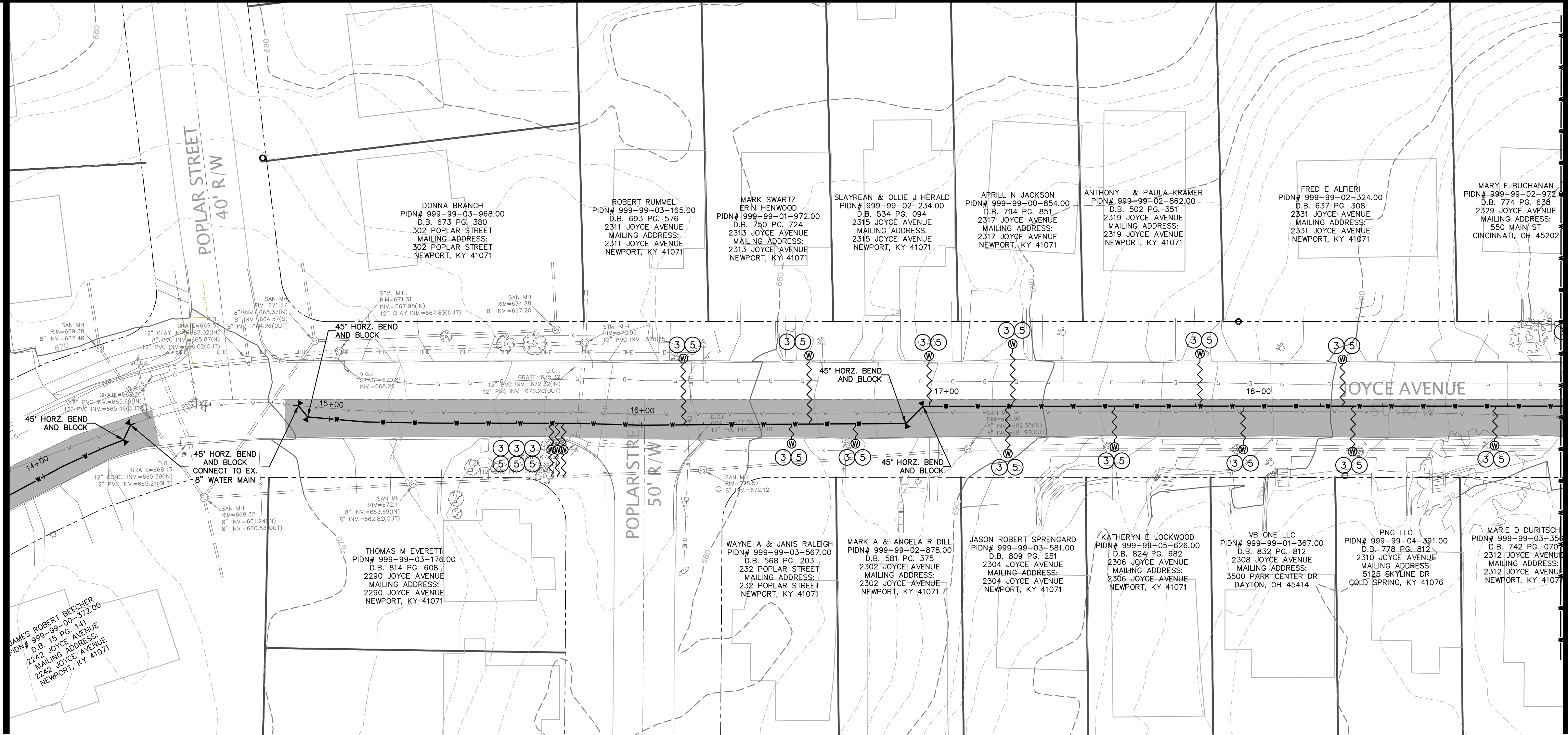
PLAN & PROFILE

SHEET

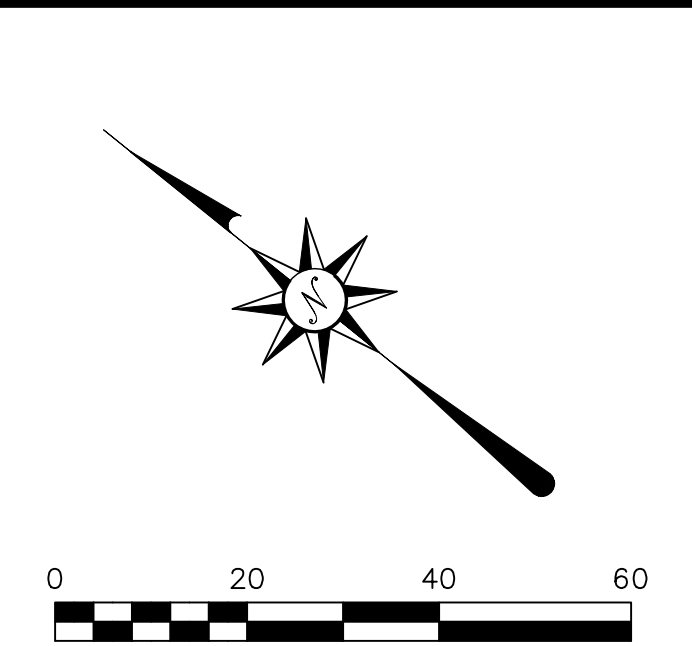
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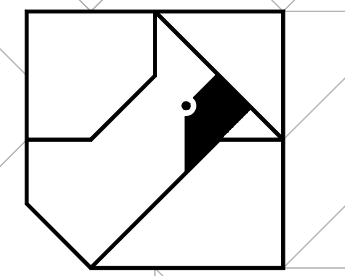
SEE SHEET C-503



SEE SHEET C-505



REVISIONS		ITEM
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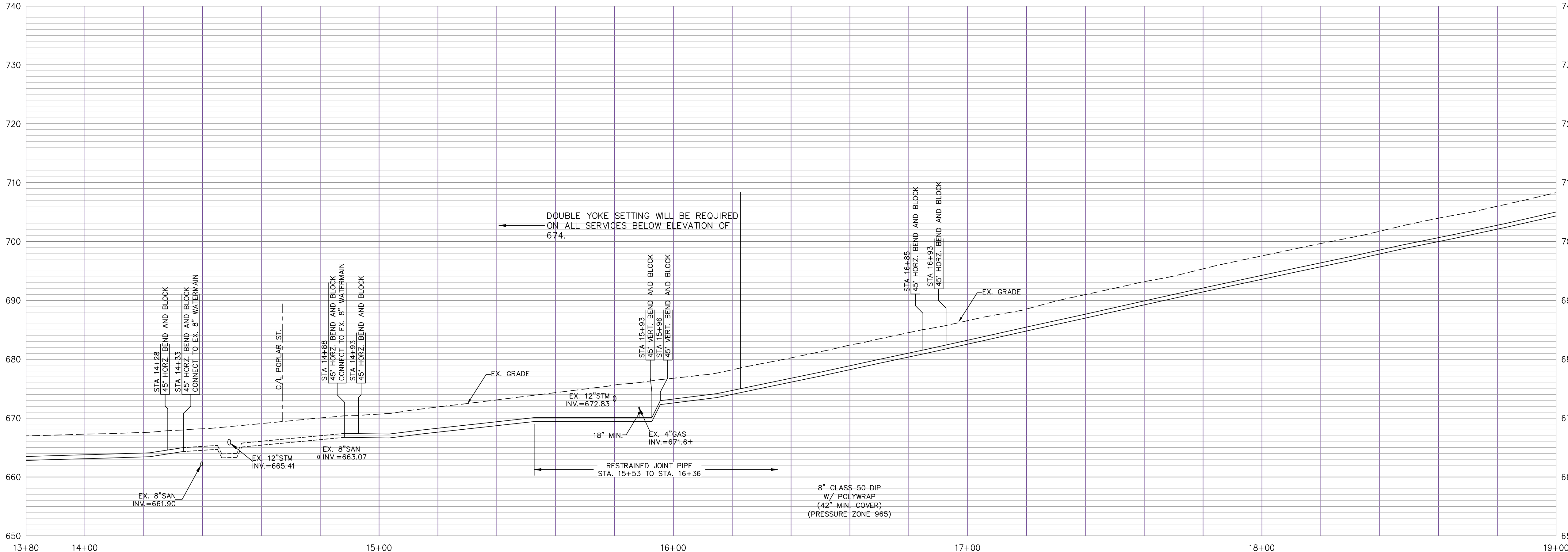


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FAX: (859) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

PROJECT: **WATER MAIN PLAN**
NEWPORT 2023 WATER MAIN REPLACEMENT
PHASE 4

CLIENT: **NORTHERN KENTUCKY WATER DISTRICT**
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640



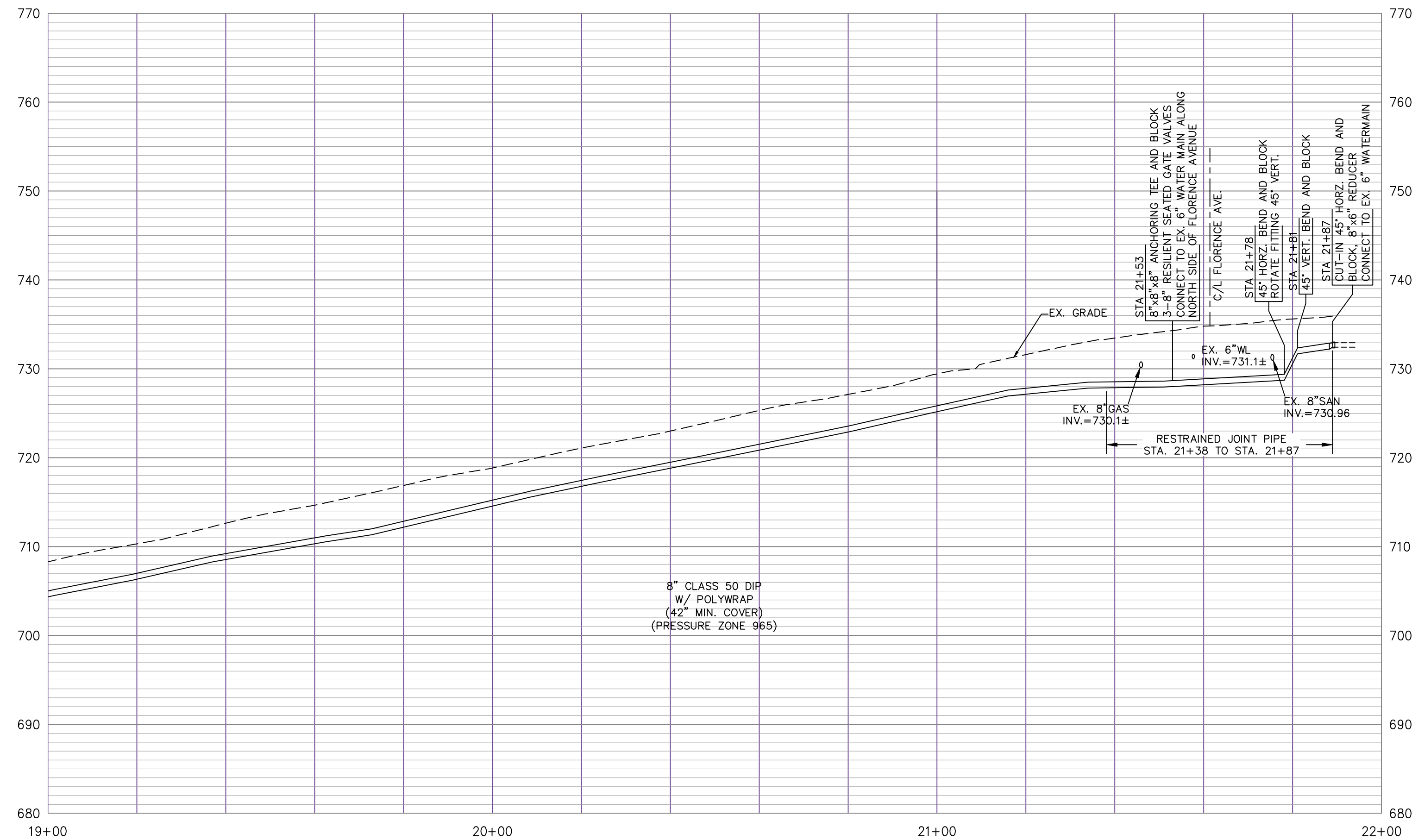
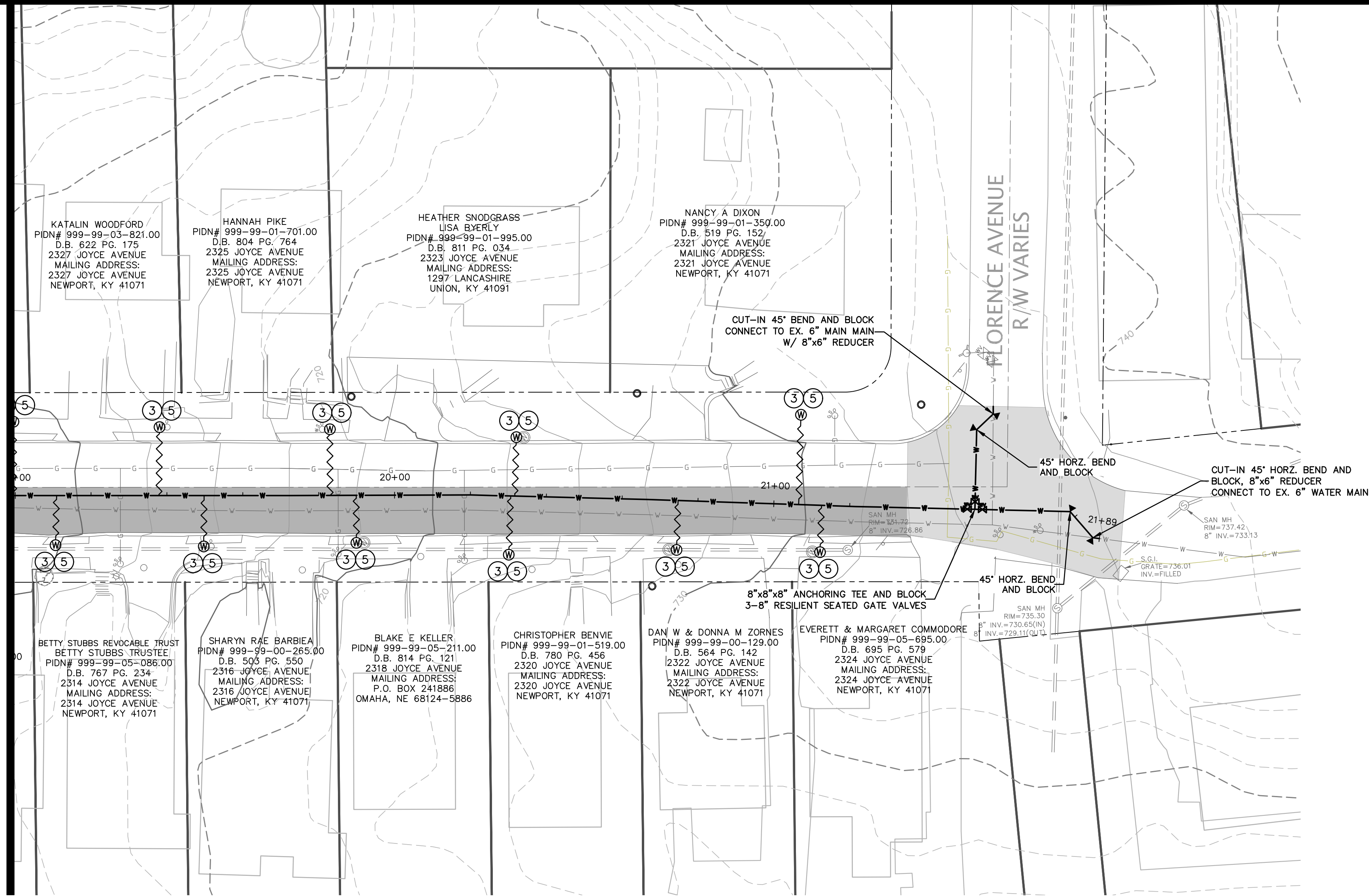
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KGH	
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PROJECT MANAGER:	
KGH	

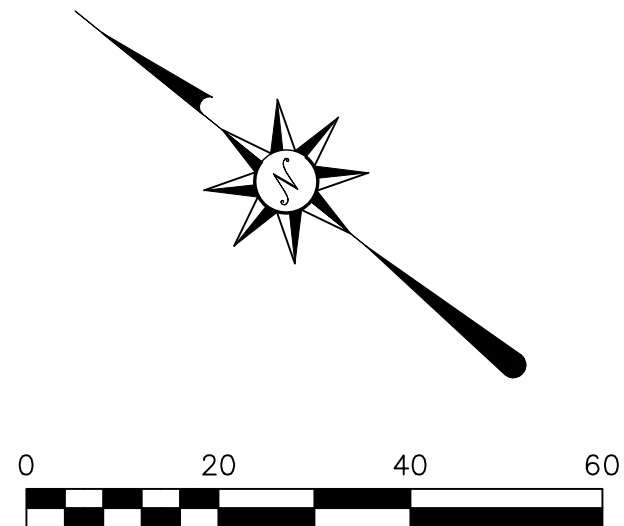
PROJECT NO. 22-125
SCALE AS NOTED
DATE 01-09-25

PLAN & PROFILE
SHEET **C-504**

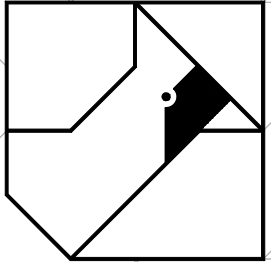
SEE SHEET C-504



- WATER MAIN CONSTRUCTION NOTES**
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REVISIONS		
DATE	#	ITEM
01-16-25	5	REV PER NKWD



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WATER MAIN PLAN
NEWPORT 2023 WATER MAIN REPLACEMENT
PHASE 4
CLIENT:
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

PROJECT:

CLIENT:

DRAWN BY:

SEAL

KGH

CHECKED BY:

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PROJECT MANAGER:

KGH

PROJECT NO. 22-125

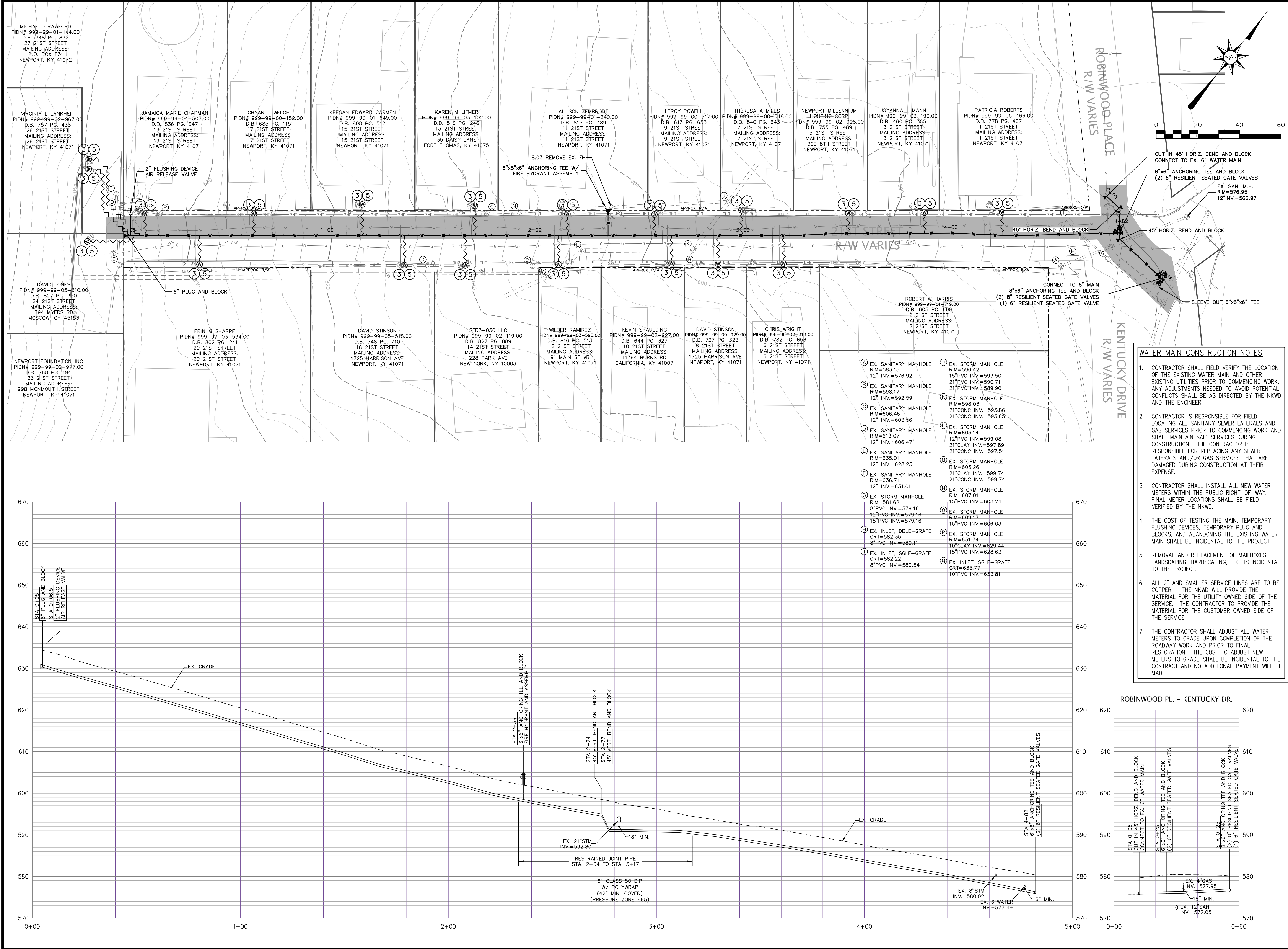
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DATE 01-09-25

PLAN & PROFILE

SHEET

C-505



REVISIONS		
DATE	#	ITEM
04-16-24	2	REV PER NKWD
04-29-24	3	REV PER NKWD
01-16-25	5	REV PER NKWD

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PROJECT:

WATER MAIN PLAN

NEWPORT 2023 WATER MAIN REPLACEMENT

PHASE 4

CLIENT:

NORTHERN KENTUCKY WATER DISTRICT

2835 CRESCENT SPRINGS ROAD

P.O. BOX 18640

ERLANGER, KY 41018-0640

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PROJECT MANAGER:	
KGH	

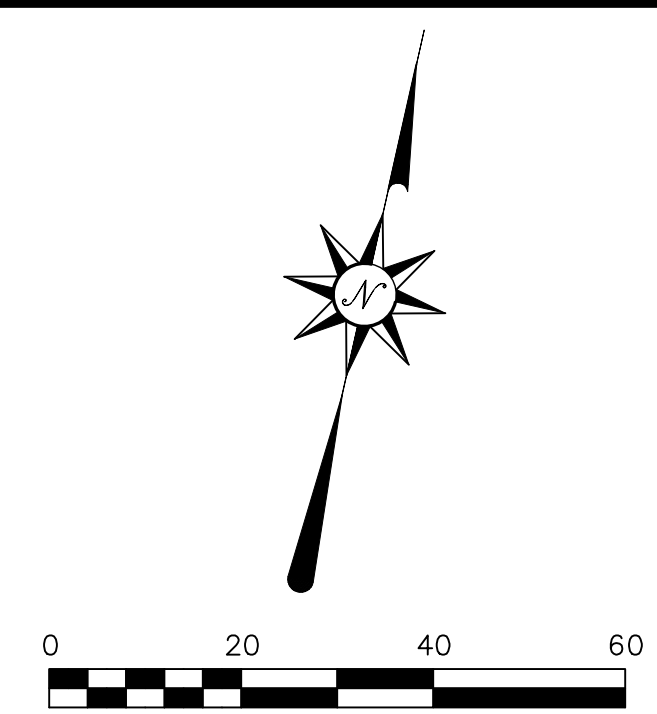
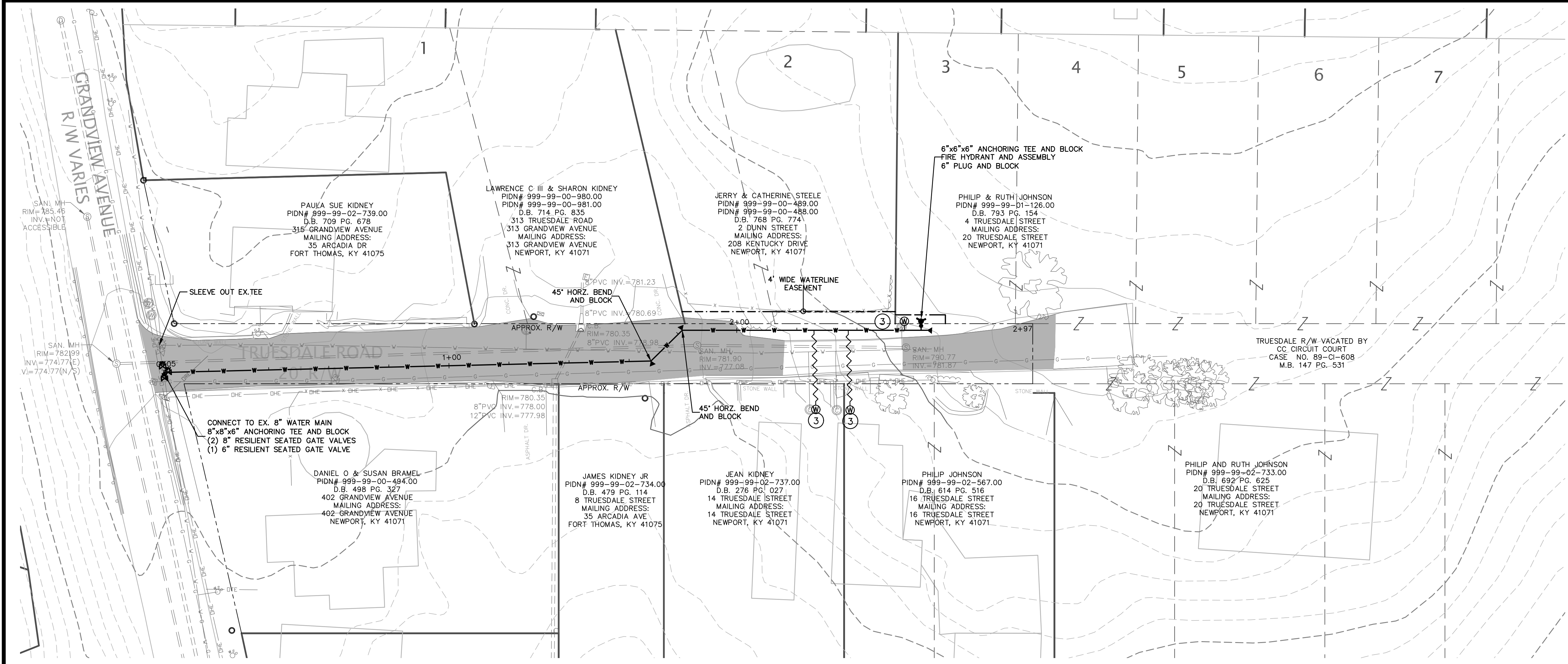
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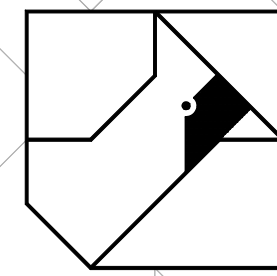
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SHEET **C-506**



REVISIONS		
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08-22-24	4	TRUESDALE REV PER NKWD
10-08-24	5	TRUESDALE PROP REV
01-16-25	5	REV PER NKWD



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PROJECT: **WATER MAIN PLAN**
NEWPORT 2023 WATER MAIN REPLACEMENT
PHASE 4

CLIENT: **NORTHERN KENTUCKY WATER DISTRICT**
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

WATER MAIN CONSTRUCTION NOTES

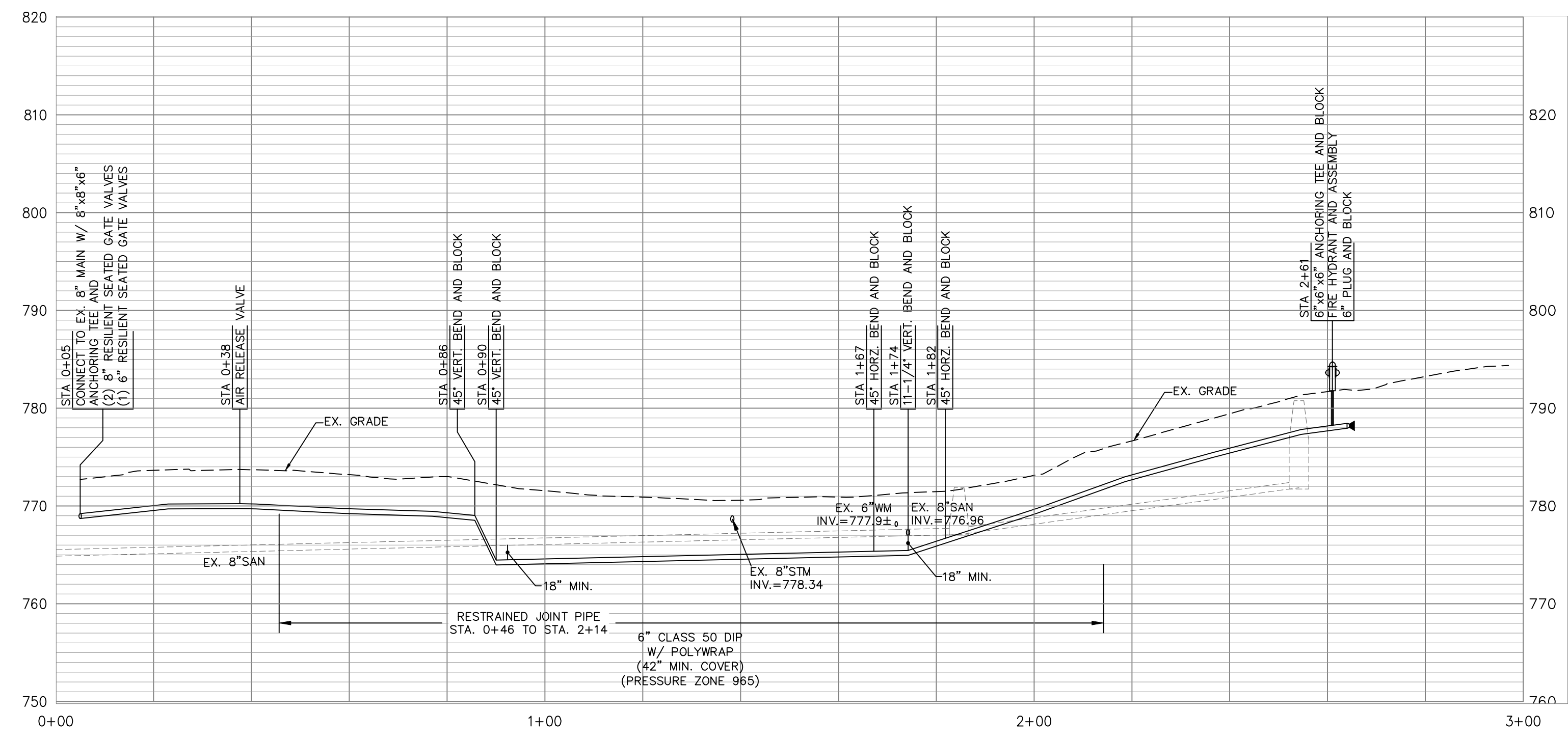
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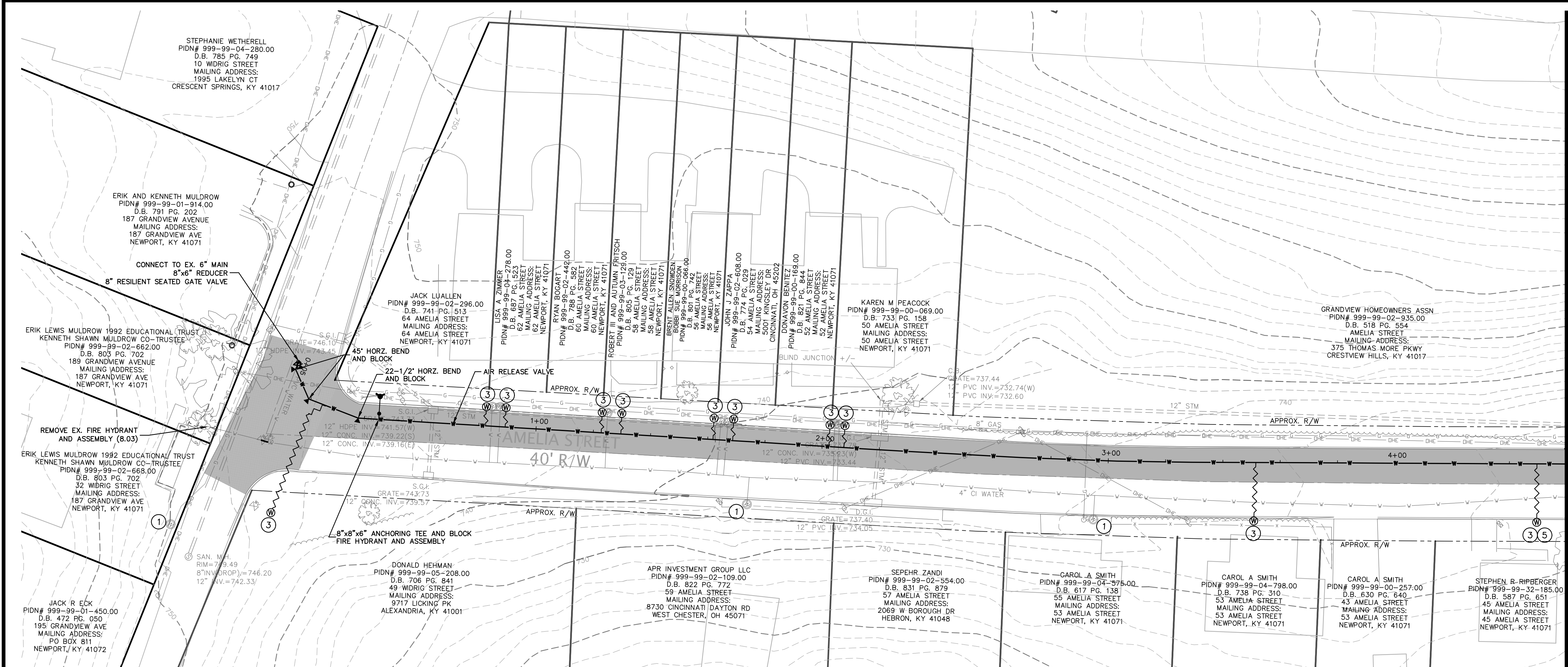
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PROJECT MANAGER:	
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PROJECT NO. 22-125
SCALE AS NOTED
DATE 01-09-25

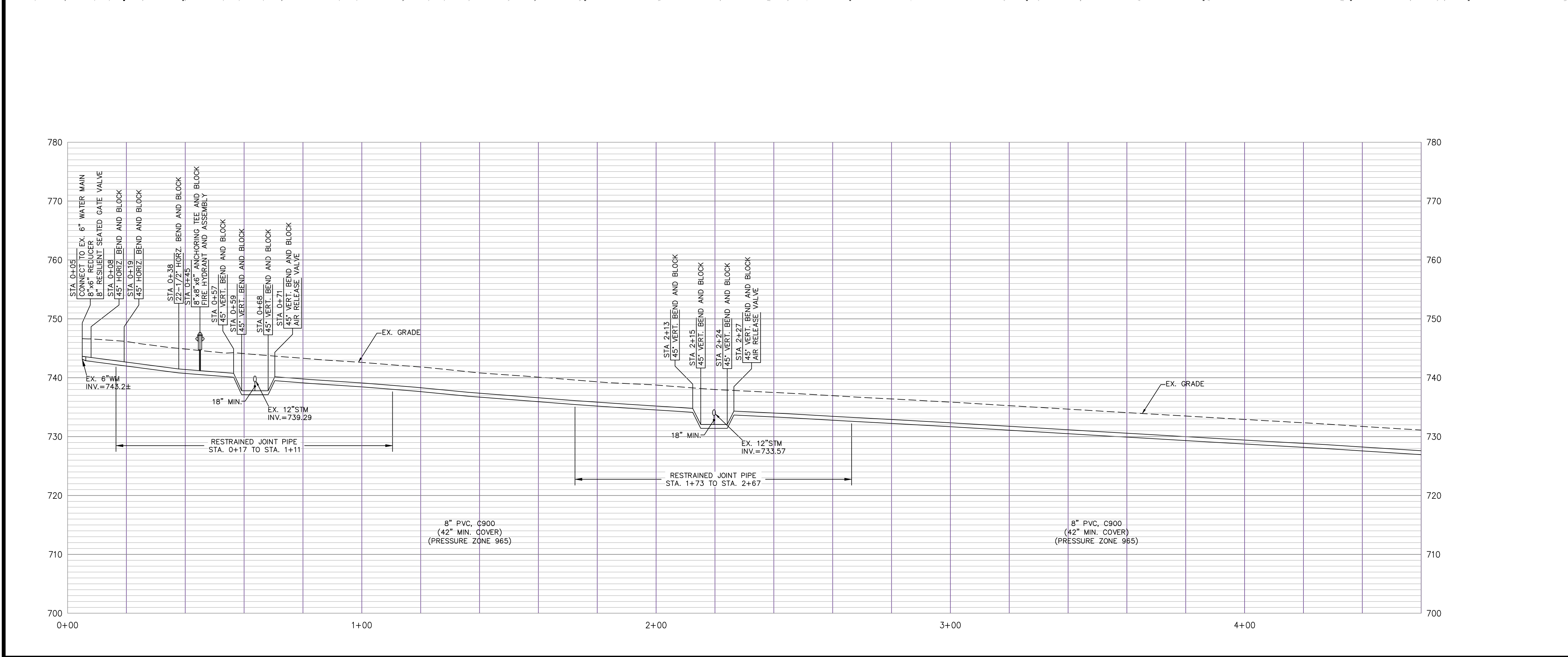
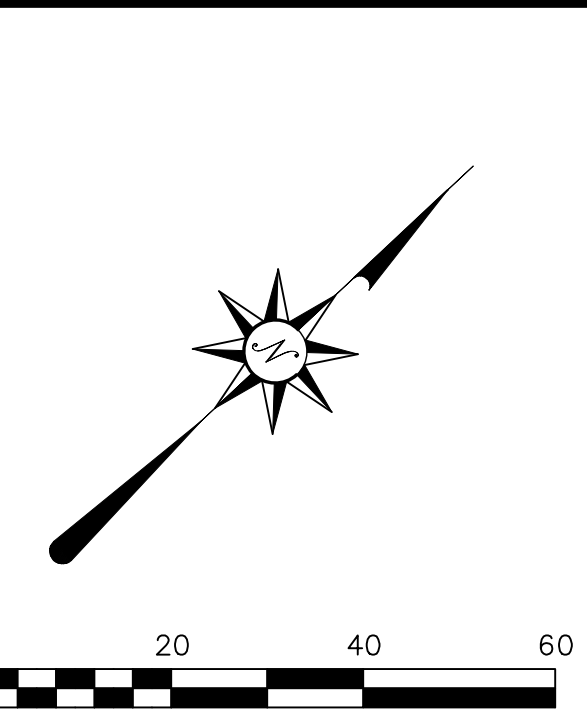
PLAN & PROFILE

SHEET **C-507**





SEE SHEET C-509



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04-29-24	3	REV PER NKWD
01-16-25	5	REV PER NKWD

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WATER MAIN PLAN
NEWPORT 2023 WATER MAIN REPLACEMENT
PHASE 4

CLIENT:
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

PROJECT:

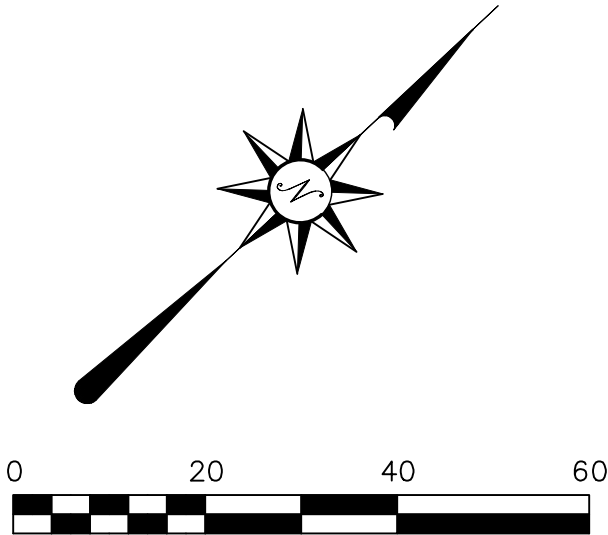
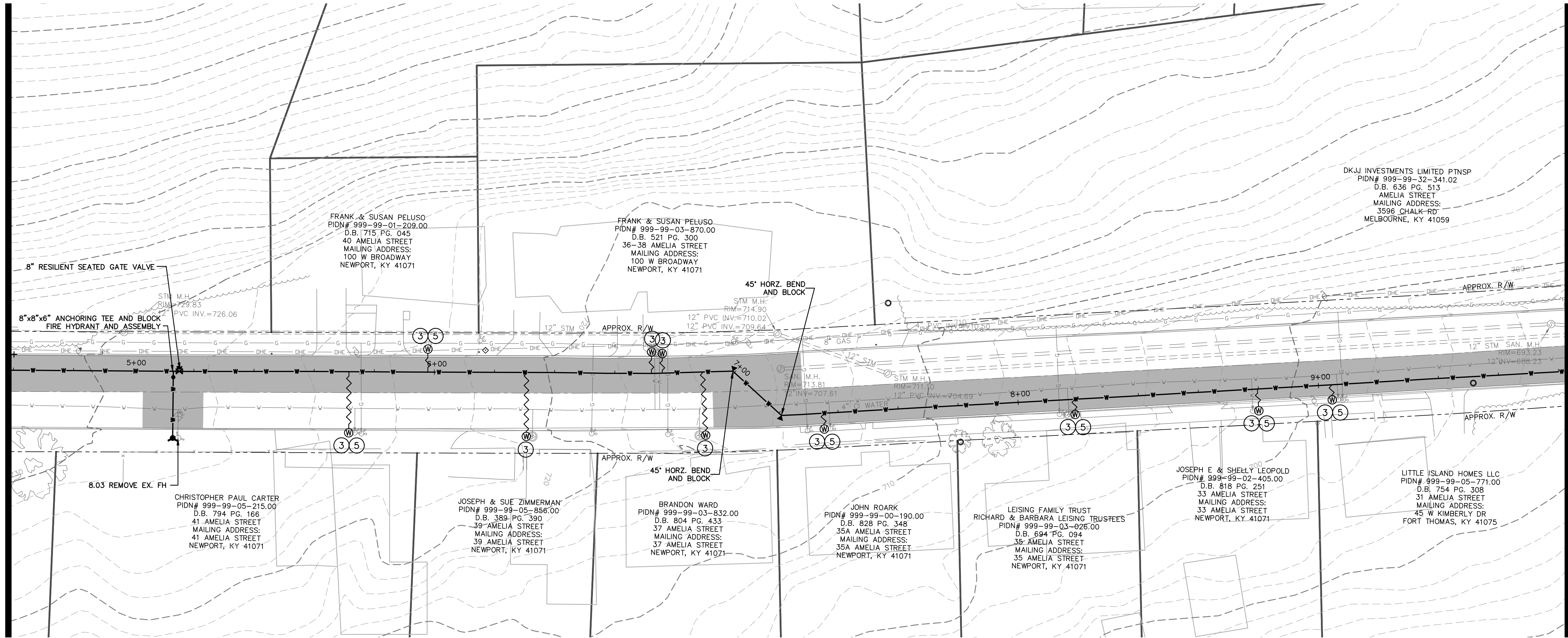
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PROJECT MANAGER:	KGH

PROJECT NO. 22-125
SCALE AS NOTED
DATE 01-09-25

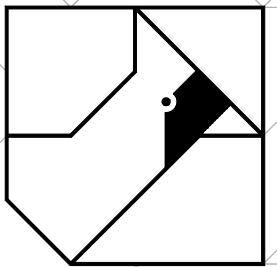
PLAN & PROFILE
SHEET C-508

SEE SHEET C-508

SEE SHEET C-510



REVISIONS		
DATE	#	ITEM
01-16-25	5	REV PER NKWD



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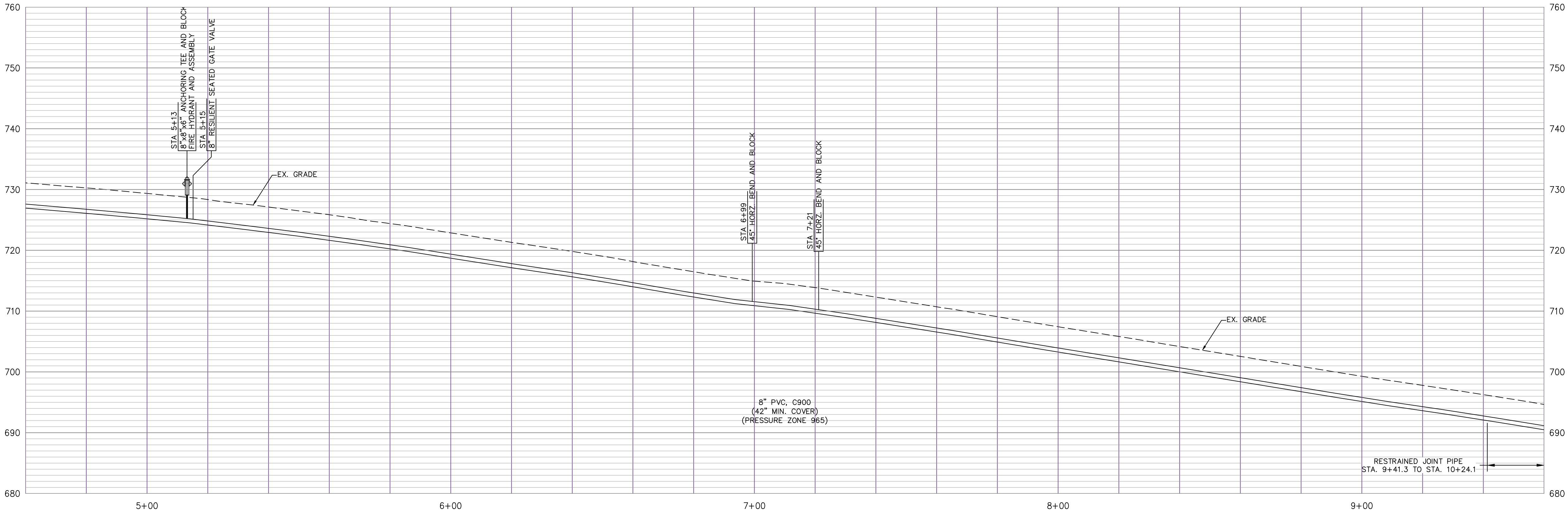
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PROJECT:

WATER MAIN PLAN
NEWPORT 2023 WATER MAIN REPLACEMENT
PHASE 4

CLIENT:

NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640



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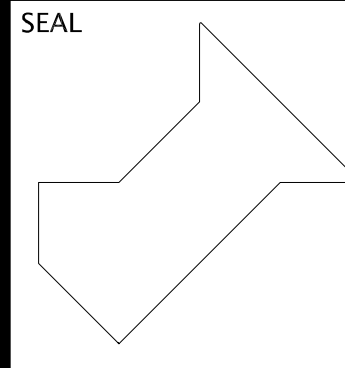
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PROJECT MANAGER:

KGH

SEAL



PROJECT NO. 22-125

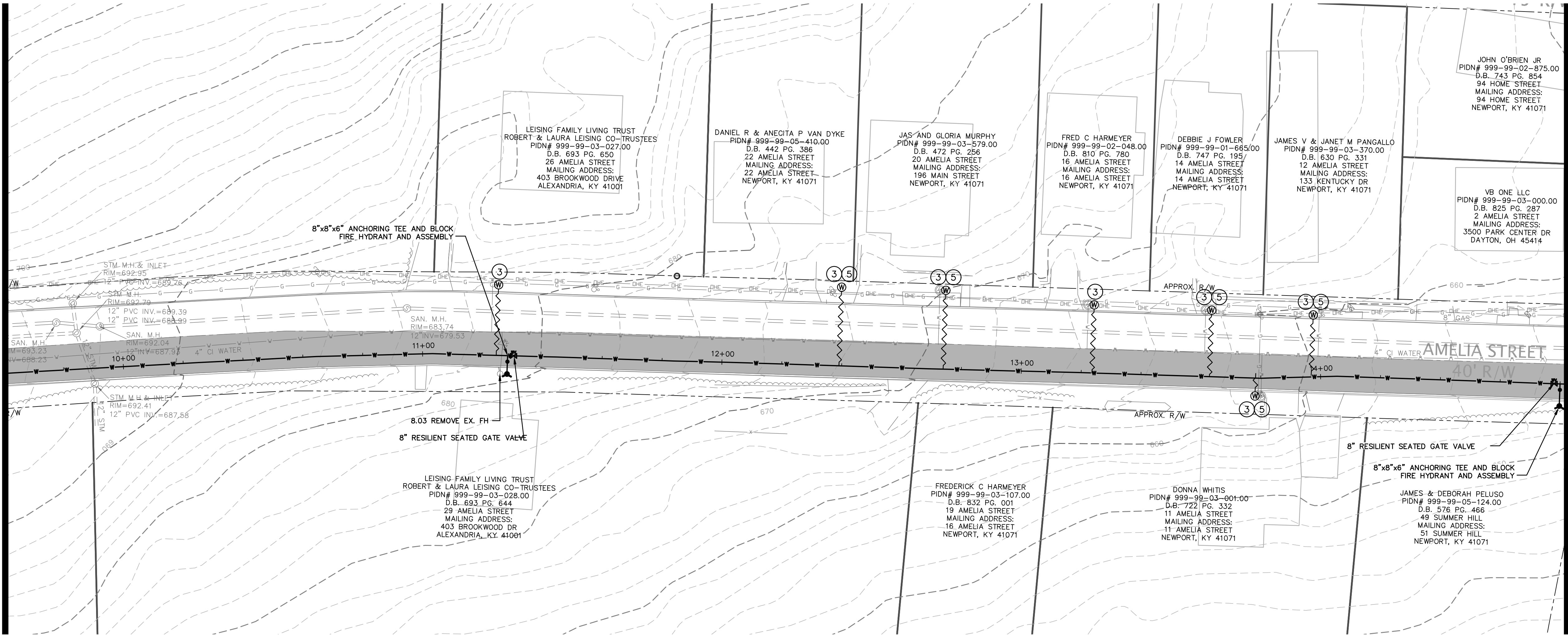
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PLAN & PROFILE

SHEET **C-509**

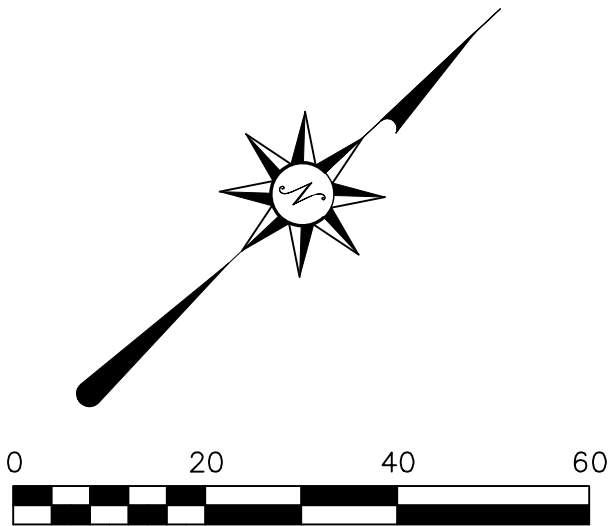
SEE SHEET C-509



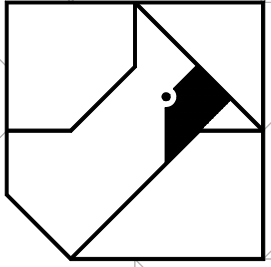
SEE SHEET C-511

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04-29-24	3	REV PER	NKWD
01-16-25	5	REV PER	NKWD



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PROJECT: **WATER MAIN PLAN**
NEWPORT 2023 WATER MAIN REPLACEMENT
PHASE 4
CLIENT: **NORTHERN KENTUCKY WATER DISTRICT**
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

PROJECT:

CLIENT:

DRAWN BY:

SEAL

KGH

CHECKED BY:

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PROJECT MANAGER:

KGH

PROJECT NO. 22-125

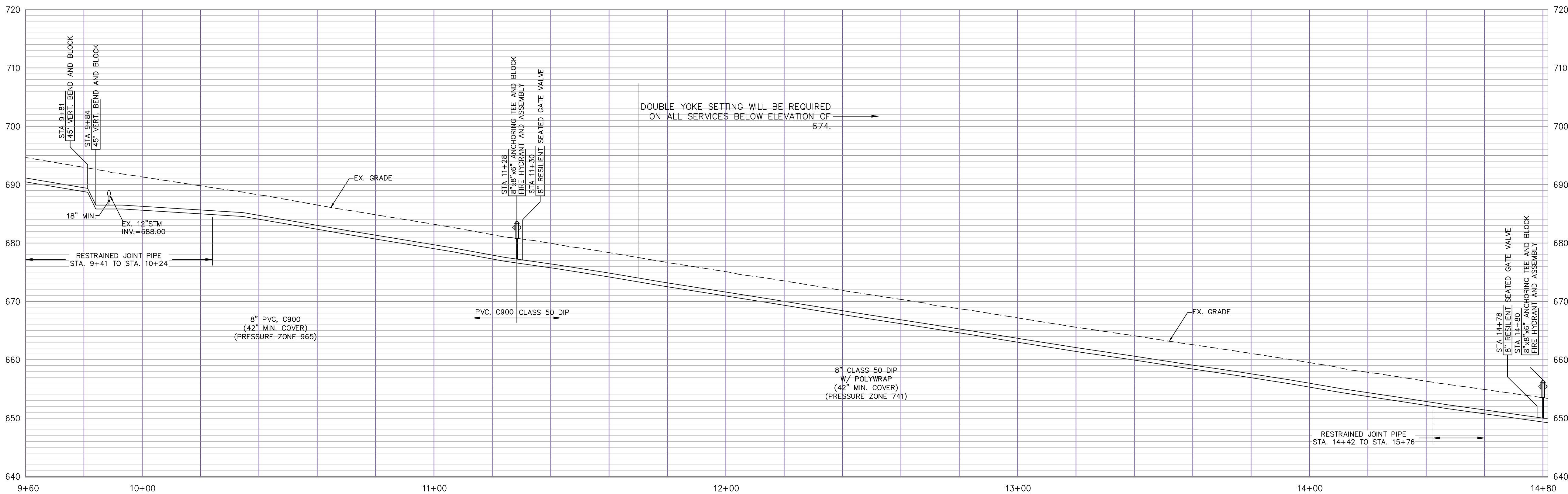
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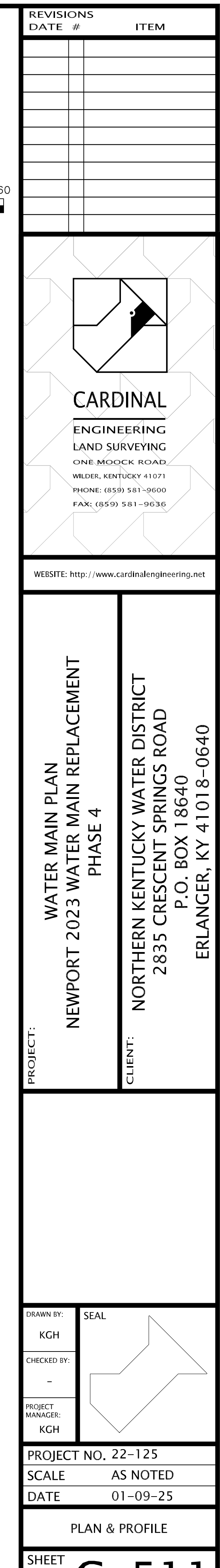
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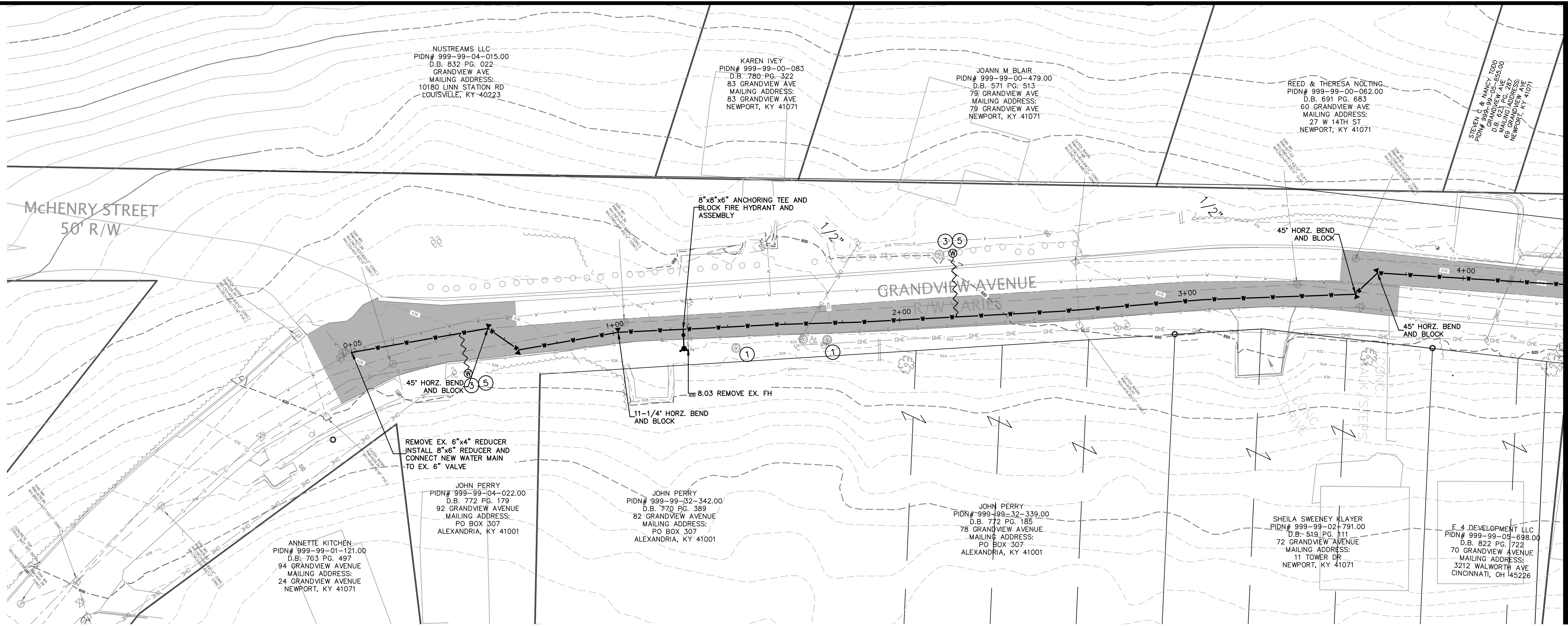
PLAN & PROFILE

SHEET

C-510



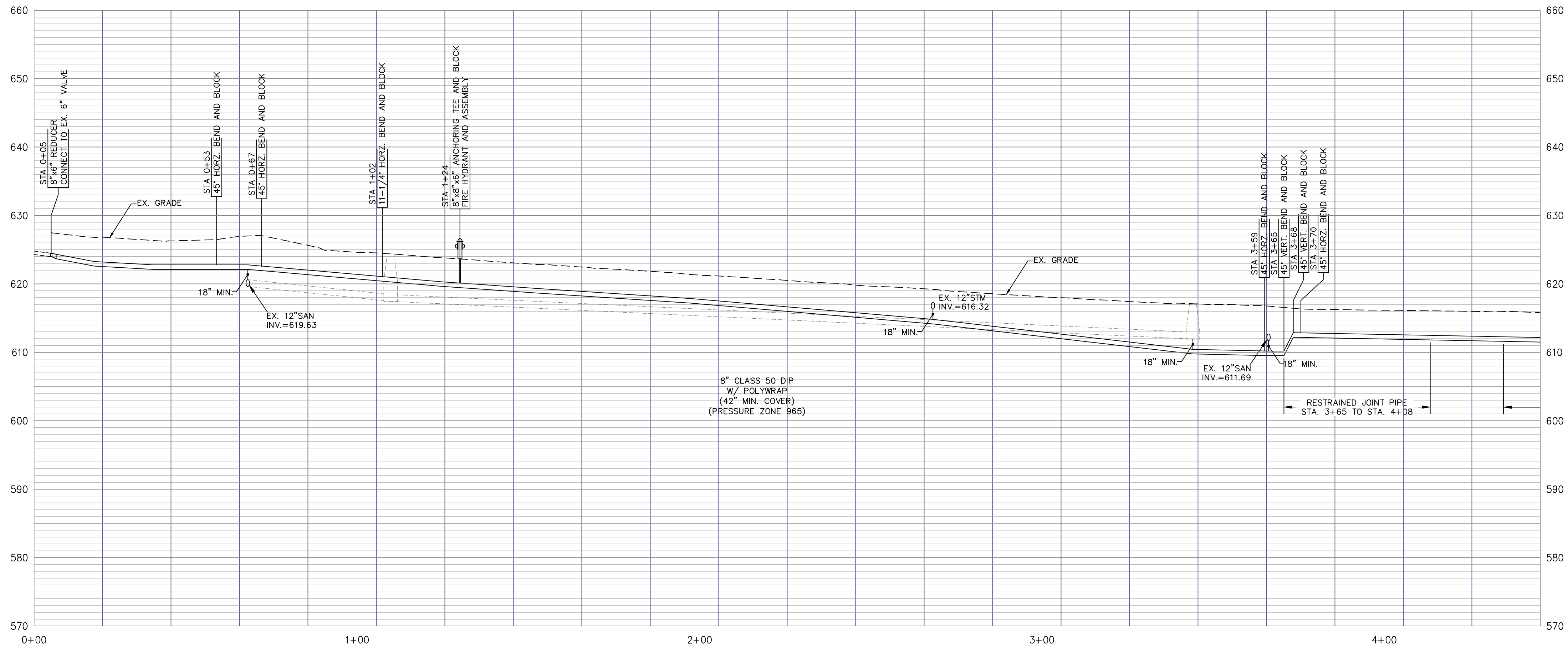




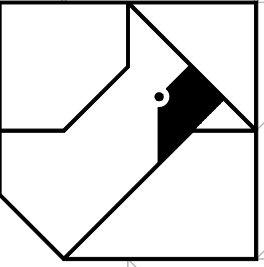
SEE SHEET C-513

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REVISIONS		
DATE	#	ITEM
04-29-24	3	REV PER NKWD



CARDINAL

ENGINEERING
LAND SURVEYING
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE: (859) 581-9600
FAX: (859) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

PROJECT:
WATER MAIN PLAN
NEWPORT 2023 WATER MAIN REPLACEMENT
PHASE 4

CLIENT:
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

DRAWN BY:
KGH
CHECKED BY:
-
PROJECT MANAGER:
KGH

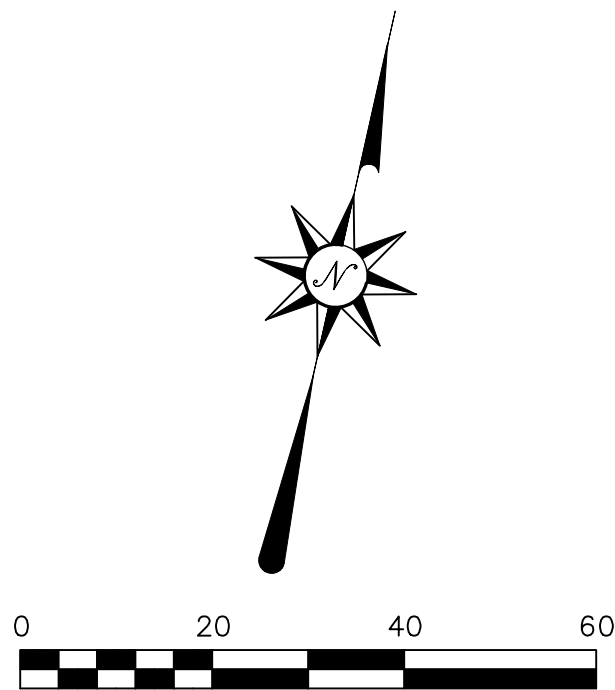
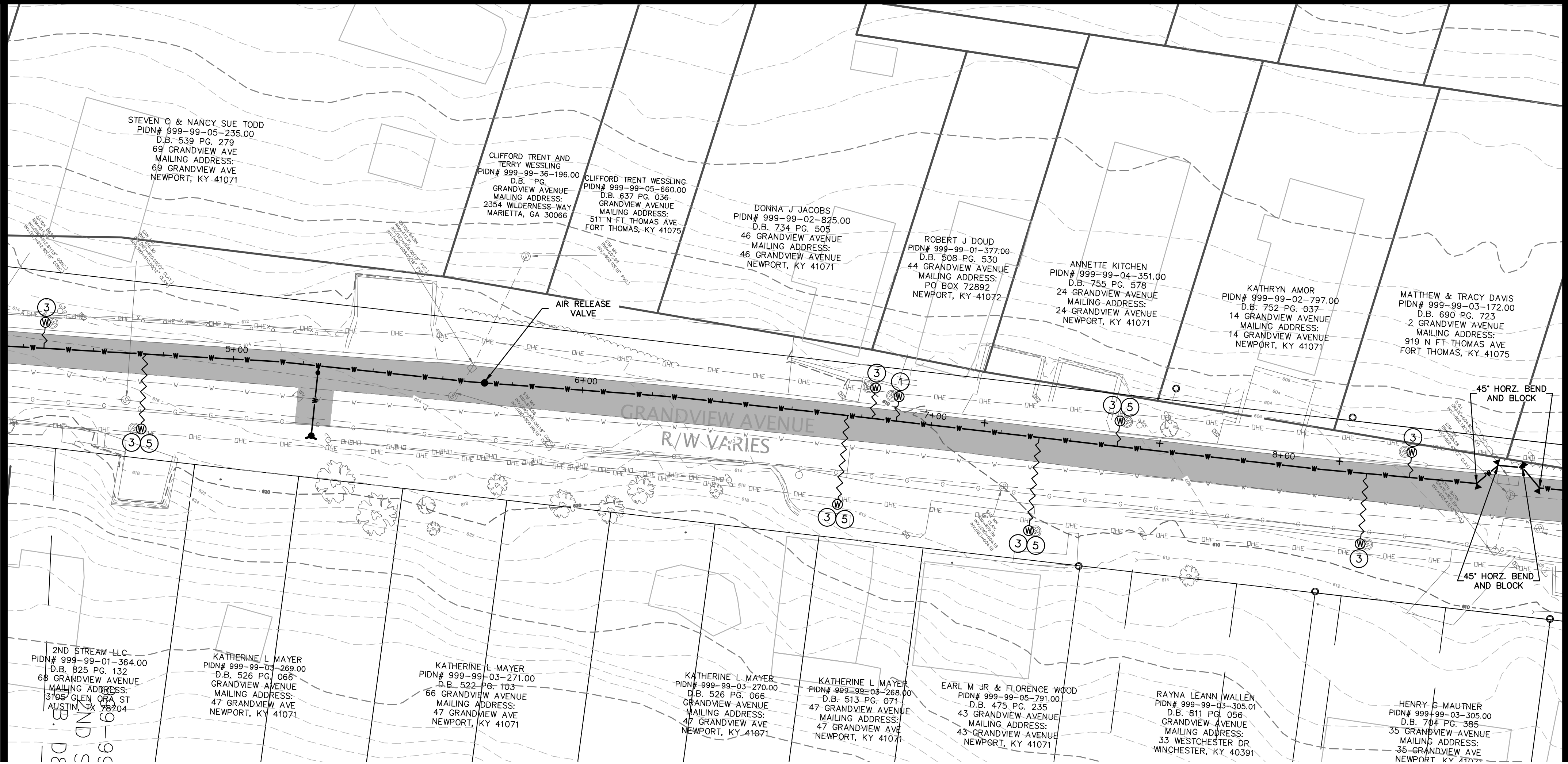
SEAL

PROJECT NO. 22-125
SCALE AS NOTED
DATE 01-09-25

PLAN & PROFILE

SHEET
C-512

SEE SHEET C-512



REVISIONS		
DATE	#	ITEM
01-16-25	5	REV PER NKWD

CARDINAL
ENGINEERING
LAND SURVEYING
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE: (859) 581-9600
FAX: (859) 581-9636

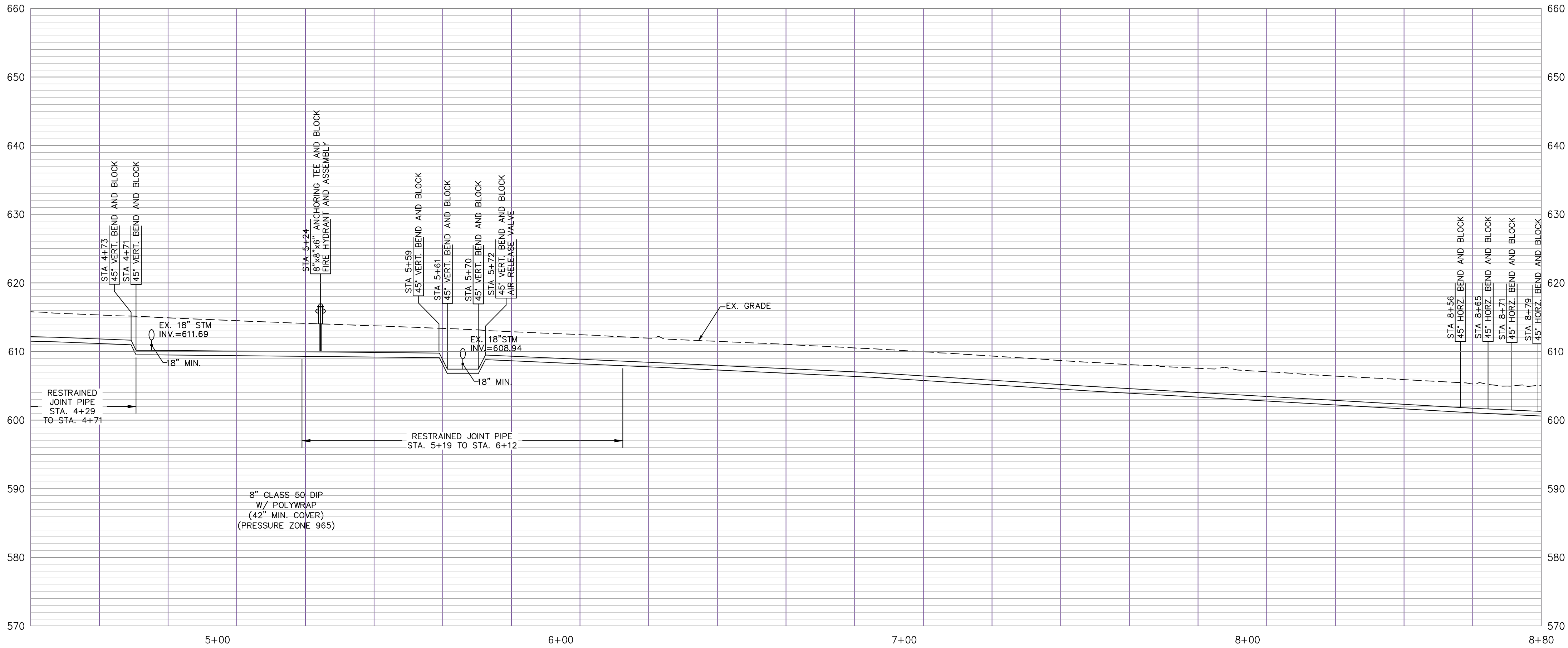
WEBSITE: <http://www.cardinalengineering.net>

PROJECT:

WATER MAIN PLAN
NEWPORT 2023 WATER MAIN REPLACEMENT
PHASE 4

CLIENT:

NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640



- WATER MAIN CONSTRUCTION NOTES**
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DRAWN BY:

KGH

CHECKED BY:

-

PROJECT MANAGER:

KGH

SEAL

PROJECT NO. 22-125

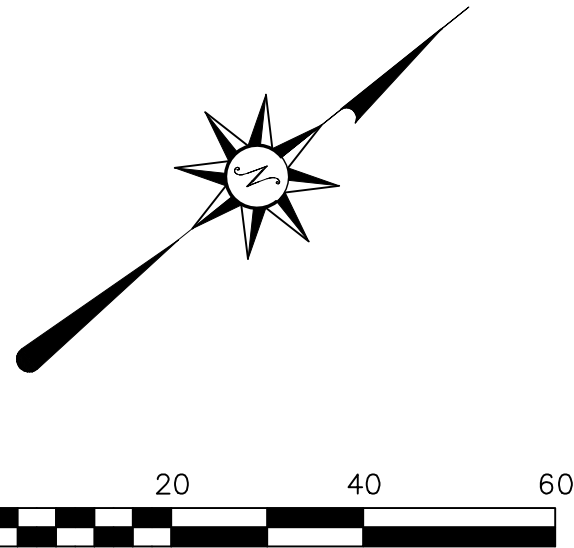
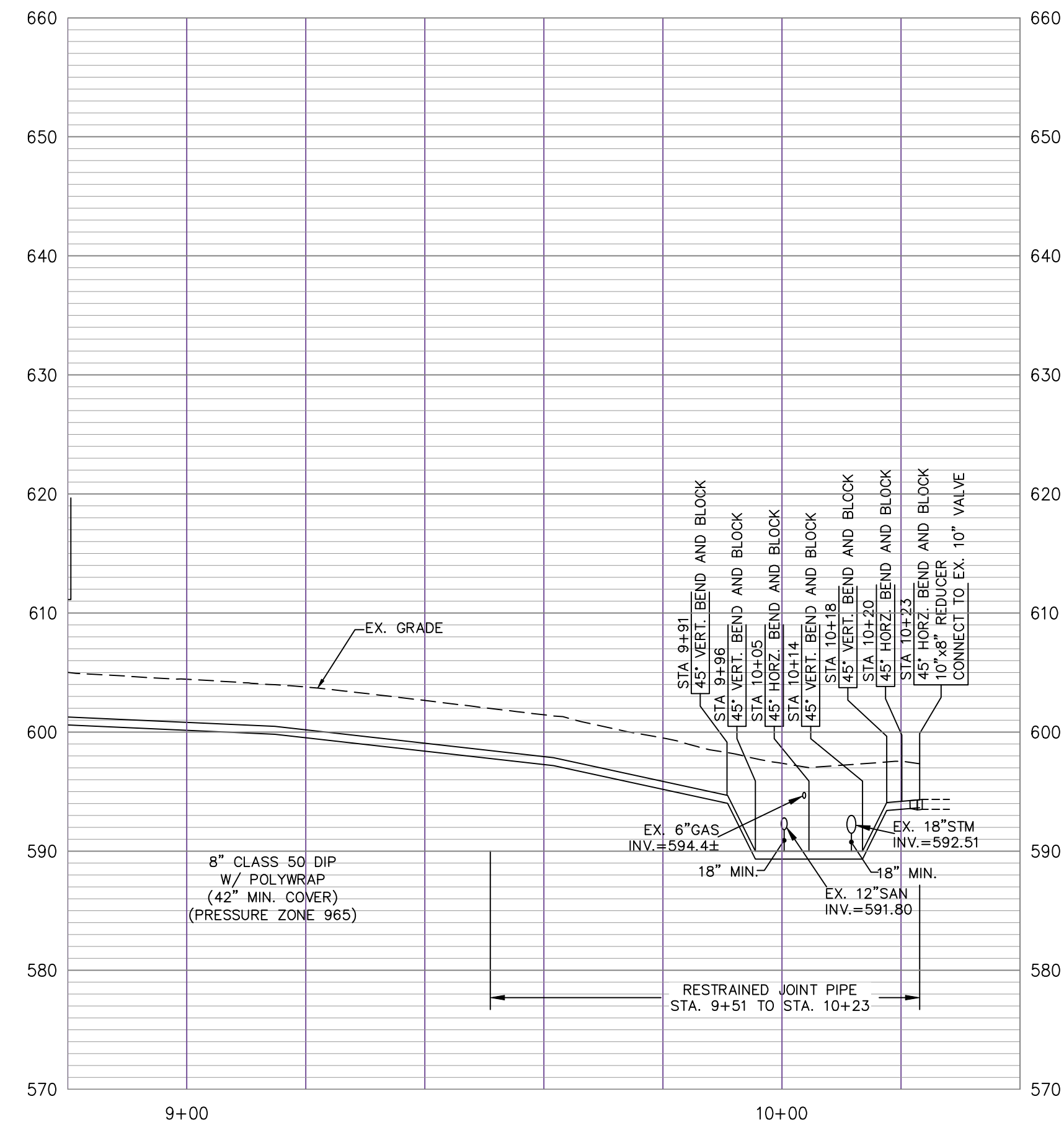
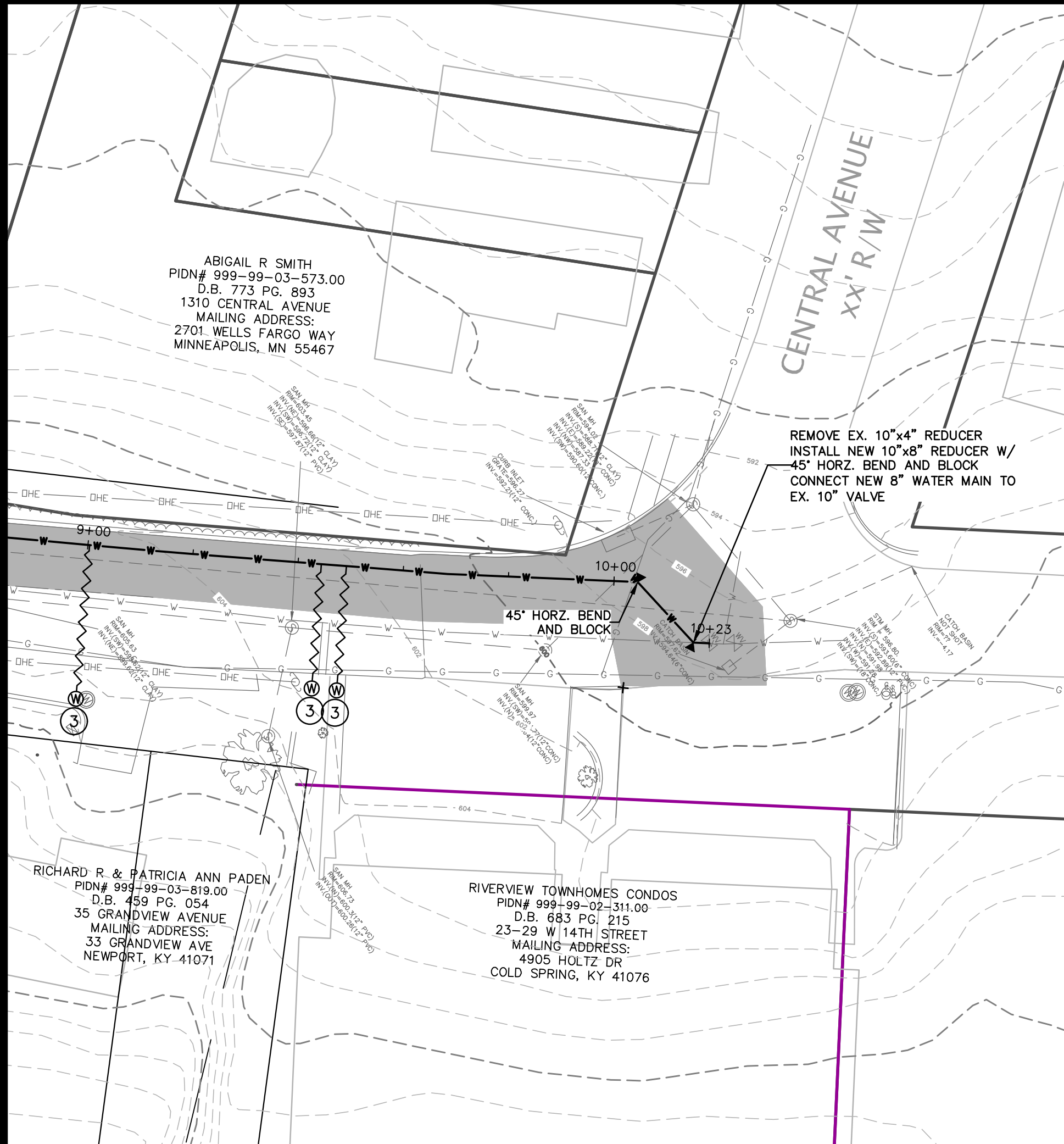
SCALE AS NOTED

DATE 01-09-25

PLAN & PROFILE

SHEET **C-513**

SEE SHEET C-513



REVISIONS		
DATE	#	ITEM
04-29-24	3	REV PER NKWD

CARDINAL
ENGINEERING
LAND SURVEYING
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE: (859) 581-9600
FAX: (859) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

PROJECT:
WATER MAIN PLAN
NEWPORT 2023 WATER MAIN REPLACEMENT
PHASE 4

CLIENT:
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

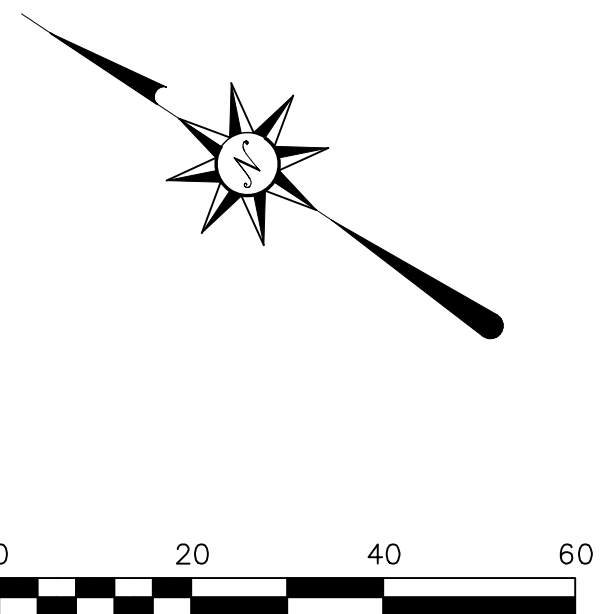
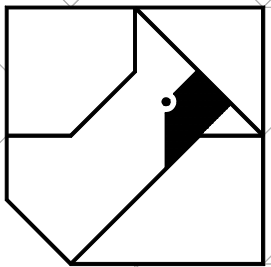
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DRAWN BY:	SEAL
KGH	
CHECKED BY:	-
PROJECT MANAGER:	KGH

PROJECT NO.	22-125
SCALE	AS NOTED
DATE	01-09-25

PLAN & PROFILE
SHEET
C-514

[illegible]

CARDINAL

**ENGINEERING
LAND SURVEYING**
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PHONE: (859) 581-9600
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WATER MAIN PLAN
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2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

PROJECT:

CLIENT:

DRAWN BY:

SEAL

CHECKED BY _____

PROJECT



PROJECT NO. 22-125

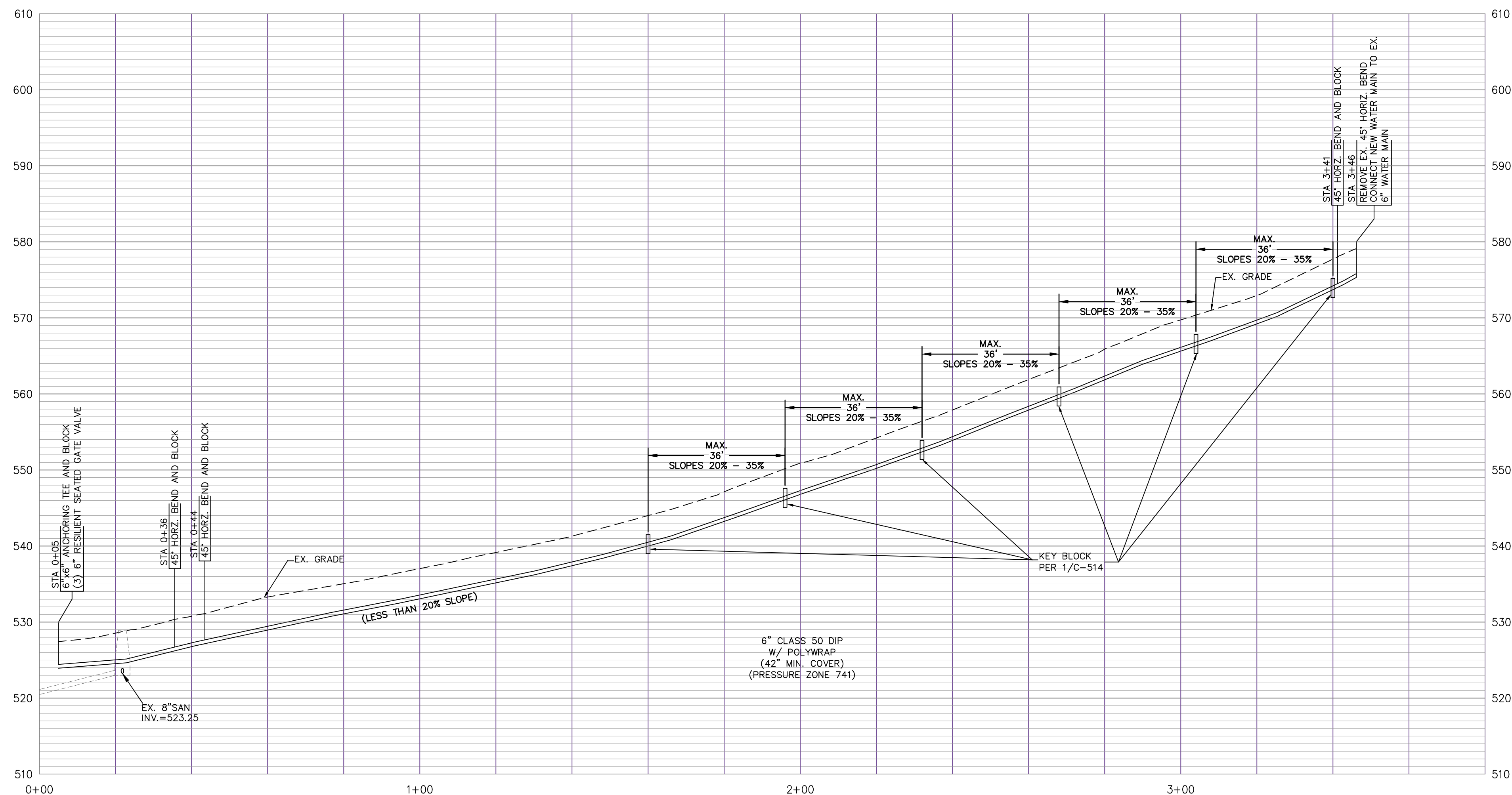
SCALE AS NOTED

DATE 01-09-25

PLAN & PROFILE

SHEET

C-515



- WATER MAIN CONSTRUCTION NOTES

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EXHIBIT A-8

ADDENDA



NEWPORT WMR – PHASE 3

ADDENDUM NO. 1
Newport Water Main Replacement – Phase 3 of WX21037311
Newport, Campbell County, Kentucky
NORTHERN KENTUCKY WATER DISTRICT

Bayer Becker, Inc.

February 18, 2025

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents. All addendums will be issued through the Owner's QUESTCDN electronic bidding site. You must download the bid documents to be a plan holder and receive any addenda. It is the sole responsibility of the Bidder to review all addendums twenty-four (24) hours prior to bid.

I. CHANGES TO SPECIFICATIONS & TO THE BID FORM

Specification Section 00300 "Bid Disclosure Form" & QuestCDN Bid Worksheet

Remove item 10.10 "Private Side Lead Service Line Replacement" for the following addresses:

- 307 E. 3rd Street
- 309 E. 3rd Street
- 310 E. 3rd Street
- 316 E. 3rd Street
- 329 E. 3rd Street
- 331 E. 3rd Street
- 536 E. 3rd Street
- 542 E. 3rd Street
- 317 E. 5th Street
- 319 E. 5th Street
- 429 E. 5th Street
- 211 E. 7th Street
- 807 E. 7th Street
- 809 E. 7th Street
- 646 Oak Street
- 812 Roberts Street
- 817 Roberts Street
- 825 Roberts Street
- 604 Oak Street
- 613 Oak Street
- 623 Oak Street
- 625 Oak Street
- 636 Oak Street
- 538 Linden Avenue
- 615 Linden Avenue
- 619 Linden Avenue
- 627 Linden Avenue
- 629 Linden Avenue
- 727 Linden Avenue
- 805 Linden Avenue
- 816 Linden Avenue

Add item 10.10 "Private Side Lead Service Line Replacement" for the following addresses:

- 322 E. 5th Street (New Item Code B14)
- 410 E. 5th Street (New Item Code B22)
- 417 E. 5th Street (New Item Code B26)
- 419-421 E. 5th Street (New Item Code B27)
- 423 E. 5th Street (New Item Code B29)

- 647 Monmouth Street (New Item Code C16)
- 110 E. 7th Street (New Item Code C17)
- 112 E. 7th Street (New Item Code C18)
- 129 E. 7th Street (New Item Code C24)
- 133 E. 7th Street (New Item Code C25)
- 206 E. 7th Street (New Item Code C30)
- 207 E. 7th Street (New Item Code C31)
- 820 E. 7th Street (New Item Code C49)
- 618A Roberts Street (New Item Code D14)
- 618B Roberts Street (New Item Code D15)
- 619 Roberts Street (New Item Code D16)
- 620A Roberts Street (New Item Code D17)
- 620B Roberts Street (New Item Code D18)
- 626 Roberts Street (New Item Code D23)
- 628 Roberts Street (New Item Code D24)
- 630 Roberts Street (New Item Code D25)
- 636 Roberts Street (New Item Code D27)
- 638 Roberts Street (New Item Code D29)
- 719 Roberts Street (New Item Code D39)
- 721 Roberts Street (New Item Code D41)
- 722 Roberts Street (New Item Code D42)
- 728 Roberts Street (New Item Code D47)
- 814 Roberts Street (New Item Code D53)
- 614 Oak Street (New Item Code E16)
- 522 Linden Avenue (New Item Code F14)
- 536A Linden Avenue (New Item Code F19)
- 536B Linden Avenue (New Item Code F20)
- 604 Linden Avenue (New Item Code F21)
- 611 Linden Avenue (New Item Code F25)
- 639 Linden Avenue (New Item Code F37)
- 723 Linden Avenue (New Item Code F56)
- 822 Linden Avenue (New Item Code F71)

The QuestCDN Bid Worksheet has been modified to reflect these changes. New plan sheets will not be issued. The addresses listed for item 10.10 "Private Lead Service Line Replacement" in the updated QuestCDN Bid Worksheet supersedes what is shown on the plans.

Specification Section 00810 "Supplemental General Conditions for Drinking Water State Revolving Fund" Page 29 of 49, Attachment Number 12

Remove the first bulleted item in its entirety and replace it with the following:

"Bid guarantee equivalent to 10 percent of the bid price. The bid guarantee shall consist of a firm commitment such as a certified check or bid bond submitted with the bid;"

Specification Section 01025 "Measurement & Payment", Page 7 of 13

Add the following immediately after the description for item "10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT":

"Notwithstanding Section 00800 Supplementary Conditions, Sub-Section SC-11.9 "Unit Price Work", Contractor shall not be entitled to change orders for estimated quantities differing by more than 25% due to discovery that a line is not lead and does not need replaced, or due to inability to obtain the home owner consent."

Specification Section 01025 “Measurement & Payment”, Page 9 of 13

Add the following immediately after the description for item “10.10B PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT – Pressure Regulator & Expansion Tank Additive”:

“Notwithstanding Section 00800 Supplementary Conditions, Sub-Section SC-11.9 “Unit Price Work”, Contractor shall not be entitled to change orders for estimated quantities differing by more than 25% due to discovery that a line is not lead and does not need replaced, due to inability to obtain the home owner consent, or due to the Plumbing Code/the Plumbing Inspector not requiring a new regulator and expansion tank as part of the service line replacement.”

Clarification / Q&A

Q. What is the engineer’s estimate?

A. \$4,995,265

Q. Are there any restricted working hours for the project?

A. Refer to specification sections listed below: • Section 00700 “General Conditions” - sub-section 6.02.B : 6.02 Labor; Working Hours B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent given after prior written notice to Engineer. • Section 00800 “Supplemental Conditions” – sub-section 6.02C SC-6.02. Labor; Working Hours. C. No Work shall be done between 6:00 p.m. and 7:00 a.m. without permission of Owner. However, emergency work may be done without prior permission

Q. Section 00100 of the specs mentions a 10% bid bond, but Section 00810 (attachment 12) mentions a 5% bid bond. Can you please clarify which is required?

A. 10% bond is required.

Q. What minimum % of WBE or MBE participation is required on this project to be responsive?

A. The section that pertains to this is Section 00810 starting at Attachment Number 3. Contractors must comply with EPA’s six good faith efforts which pertain to solicitation of DBE sub-contractors and vendors per Attachment Number 11 of Section 00800.

ADDENDUM NO. 2
Newport Water Main Replacement – Phase 3 of WX21037311
Newport, Campbell County, Kentucky
NORTHERN KENTUCKY WATER DISTRICT

Bayer Becker, Inc.

February 21, 2025

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents. All addendums will be issued through the Owner's QUESTCDN electronic bidding site. You must download the bid documents to be a plan holder and receive any addenda. It is the sole responsibility of the Bidder to review all addendums twenty-four (24) hours prior to bid.

I. CHANGES TO THE PLANS

Sheet C4.0

From Sta. 0+00 to Sta. 0+23 (plan and profile), the pipe material shall be ductile iron due to the concrete encasement.

Sheet C5.0

From Sta. 3+60 to Sta. 4+00 (plan and profile), the pipe material shall be ductile iron due to the concrete encasement.

II. CHANGES TO SPECIFICATIONS

Table of Contents, Page 2 of 2

Append "KYTC Encroachment Permit 1-18" to the end of the listed contents.

Section 00300, BID DISCLOSURE FORM

The QuestCDN Bid Worksheet has been modified to include quantity for the replacement of traffic loop detectors (Line Item A46) and full panel concrete pavement restoration (Line Item A49). The online QuestCDN Bid Worksheet supersedes the Reference Copy of the BID Worksheet in section 00300.

Section 01025, MEASUREMENT AND PAYMENT, Page 11 of 13

Append "11.19 TRAFFIC LOOP DETECTOR. Includes the labor, equipment, and materials required to remove and replace the existing traffic loop per KYTC specifications and by a KYTC pre-qualified contractor. Paid EACH (EA)." to the end of Section 11.

Section 01025, MEASUREMENT AND PAYMENT, Page 12 of 13

Item 12.05 ASPHALTIC CONCRETE MILLING AND PAVING

Add the following to the description, "This pay item includes the replacement of any pavement markings to match existing."

ADDITIONS TO SPECIFICATIONS

Kentucky Transportation Cabinet District 6 Permit #: 06-2024-00599

Add the attached KYTC Encroachment Permit #: 06-2024-00599 to the project specifications.

III. CLARIFICATION

Per Section 01025, MEASUREMENT AND PAYMENT, 12.12 CONCRETE SIDEWALK, Page 13 of 13 – This bid item includes installing the sidewalk per ADA standards which includes the replacement of ADA ramps.

NOTICE OF COMPLETION OF ENCROACHMENT PERMIT WORK

PERMITTEE

Name: Northern Kentucky Water District
Contact Person:
Address: 2835 Crescent Springs Road
City: Erlanger
State: Kentucky
Zip: 41018
Telephone:

PROJECT IDENTIFICATION

Permit Number: 06-2024-00599

I wish to notify the Department of Highways that the above mentioned permit work and any necessary right-of-way restoration have been completed and are ready for final inspection.

Permittee

Please return this form to the address below when work is completed and ready for final inspection.

Please Return to: Permit Engineer
Department of Highways, District 6 Office
421 Buttermilk Pike
Covington, Kentucky 41017
(859) 341-2700
www.transportation.ky.gov/

LOCATION(S)			
Description	County - Route	Latitude	Longitude
Installation of 8" ductile iron water main at the intersection of Monmouth Street (US 27) and E. 7th Street in Newport, KY.	Campbell - US 27	39.090361	-84.492407

APPROVED
JUNE 21, 2024
KENTUCKY TRANSPORTATION CABINET
06-2024-00599



Andy Beshear
Governor

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Department of Highways, District 6 Office
421 Buttermilk Pike
Covington, Kentucky 41017
(859) 341-2700
www.transportation.ky.gov/

Jim Gray
Secretary

June 21, 2024

Northern Kentucky Water District
2835 Crescent Springs Road
Erlanger, Kentucky 41018

Subject: Permit #: 06-2024-00599
Permit Type: Utilities - Water
Approval

Dear Applicant:

Attached is your permit approval and documentation for the subject permit.

Be advised that all work must be done in conformity with permit and application conditions. If you have any questions, please contact the Permits Section at this office.

Sincerely,

A handwritten signature in black ink that reads "Linzy Brefeld".

Linzy Brefeld
D6 Permits Supervisor

Attachments



An Equal Opportunity Employer M/F/D

APPROVED
JUNE 21, 2024
KENTUCKY TRANSPORTATION CABINET
06-2024-00599



Kentucky Transportation Cabinet
Department of Highways
Division of Maintenance
Permits Branch

TC 99-1 (B)
07/2018
Page 1 of 1

ENCROACHMENT PERMIT

KYTC KEPT #: 06-2024-00599

Permittee: Northern Kentucky Water District

Permit Type / Subtype: Utilities / Water

Work Completion Date: 6/18/2025

INDEMNITIES		
Type	Amount Required	Tracking Number
Performance Bond	\$0.00	
Cash / Check	\$0.00	
Self-Insured	\$0.00	
Payment Bond	\$0.00	
Liability Insurance	\$0.00	

This permit has been: **APPROVED** ☒ **DENIED** ☐

Linzy Brefeld	D6 Permits Supervisor	6/20/2024
SIGNATURE	TITLE	DATE

The TC 99-1(B), including the application TC-99 1(A) and all related and accompanying documents and drawings make up the permit. It is not a permit unless both the TC 99-1(A) and TC 99-1(B) are both present.

LOCATION(S)			
Description	County - Route	Latitude	Longitude
Installation of 8" ductile iron water main at the intersection of Monmouth Street (US 27) and E. 7th Street in Newport, KY.	Campbell - US 27	39.090361	-84.492407

APPROVED
JUNE 21, 2024
KENTUCKY TRANSPORTATION CABINET
06-2024-00599



KENTUCKY TRANSPORTATION CABINET
Department of Highways
PERMITS BRANCH

TC 99-1A
Rev. 10/2020
Page 1 of 4

APPLICATION FOR ENCROACHMENT PERMIT

KYTC KEPT #: 06-2024-00599

SECTION 1: APPLICANT CONTACT INFORMATION

APPLICANT Northern Kentucky Water District	ADDRESS 2835 Crescent Springs Road		
EMAIL	CITY Erlanger	STATE KY	ZIP 41018
CONTACT NAME 1 Steve Broering	EMAIL sbroering@nkywater.org	PHONE # 859-426-2728	
		CELL # 859-991-1652	
CONTACT NAME 2 (if applicable)	EMAIL	PHONE #	
		CELL #	

SECTION 2: PROPOSED WORK LOCATION

ADDRESS Monmouth St./E. 7 th St.	CITY Newport	STATE Kentucky	ZIP 41071
COUNTY Campbell	ROUTE # US 27	MILE POINT 21.85	LONGITUDE (X) 39.090347
LATITUDE (Y) 84.492306			

ADDITIONAL LOCATION INFORMATION:

FOR KYTC USE ONLY

PERMIT TYPE: ☐ Air Right ☐ Entrance ☒ Utilities ☐ Vegetation Removal ☐ Other: _____

ACCESS: ☐ Full ☐ Partial ☒ by Permit LOCATION: ☐ Left ☐ Right ☒ Crossing

SECTION 3: GENERAL DESCRIPTION OF WORK

Installation of 8" ductile iron water main at the intersection of Monmouth Street (US 27) and E. 7th Street in Newport, KY. Restoration is 8" concrete with 1.5" asphalt surface course with sealed edges per details on plan.

THE UNDERSIGNED APPLICANT(s), being duly authorized representative(s) or owner(s), DO AGREE TO ALL ORIGINAL UNEDITED TERMS AND CONDITIONS ON THE TC 99-1A, pages 1-4.

Steve Broering
SIGNATURE

06-13-2024

DATE

This is not a permit unless and until the applicant(s) receives an approved TC 99-1B from KYTC. This application shall become void if not approved by the cancellation date. The cancellation date shall be a minimum of one year from the date the applicant submits their application.

APPROVED
JUL 21 2024
KENTUCKY TRANSPORTATION CABINET
06-2024-00599



APPLICATION FOR ENCROACHMENT PERMIT

TERMS AND CONDITIONS

1. The permit, including this application and all related and accompanying documents and drawings making up the permit, remains in effect and is binding upon the Applicant/Permittee, its successors and assigns, as long as the encroachment(s) exists and also until the permittee is finally relieved by the Department of Highways from all its obligations.
2. Applicant shall meet all requirements of the Clean Water Act if the project will disturb one acre or more, the applicant shall obtain a KPDES KYR10 Permit from the Kentucky Division of Water. All disturbed areas shall meet the requirements of the Department of Highway's Standard Specifications, Sections 212 and 213, as amended.
3. **INDEMNITY:**
 - A. **PERFORMANCE BOND:** The permittee shall provide to the Department a performance bond according to the Permits Manual, Section PE-203 as a guarantee of conformance with the Department's Encroachment Permit requirements.
 - B. **PAYMENT BOND:** At the discretion of the department, a payment bond shall be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
 - C. **LIABILITY INSURANCE:** Liability insurance shall be required of the permittee (in an amount approved by the department) to cover all liabilities associated with the encroachment.
 - D. It shall be the responsibility of the permittee, its successors and assigns, to maintain all indemnities in full force and effect until the permittee is authorized to release the indemnity by the Department.
4. A copy of this application and all related documents making up the approved permit shall be given to the applicant and shall be made readily available for review at the work site at all times.
5. Perpetual maintenance of the encroachment is the responsibility of the permittee, its successors and assigns, with the approval of the Department as required, unless otherwise stated.
6. Permittee, its successors and assigns, shall comply with and agree to be bound by the requirements and terms of (a) this application and all related documents making up the approved permit, (b) by the Department's Permits Manual, and (c) by the Manual on Uniform Traffic Control Devices, both manuals as revised to and in effect on the date of issuance of the permit, all of which documents are made a part thereof by this reference. Compliance by the permittee, its successors and assigns, with subsequent revisions to applicable provisions of either manual or other policy of the Department may be made a condition of allowing the encroachment to persist under the permit.
7. Permittee agrees that this and any encroachment may be ordered removed by the Department at any time, and for any reason, upon thirty days written notice to the last known address of the applicant or to the address at the location of the encroachment. The permittee agrees that the cost of removing and of restoring the associated right-of-way is the responsibility of the permittee, its successors and assigns.
8. Permittee, its successors and assigns, agree that if the Department determines that motor vehicular safety deficiencies develop as a result of the installation or use of the encroachment, the permittee, its successors and assigns, shall provide and bear the expenses to adjust, relocate, or reconstruct the facilities, add signs, auxiliary lanes, or other corrective measures reasonably deemed necessary by the Department within a reasonable time after receipt of a written notice of such deficiency. The period within which such adjustments, relocations, additions, modifications, or other corrective measures must be completed will be specified in the notice.
9. Where traffic signals are required as a condition of granting the requested permit or are thereafter required to correct motor vehicular safety deficiencies, as determined by the Department, the costs for signal equipment and installation(s) shall be borne by the permittee, its successors and assigns and the Department in its reasonable discretion and only in accordance with the Department's current policy set forth in the Traffic Operations Manual and Permits Manual. Any modifications to the permittee's entrance necessary to accommodate signalization (including necessary easement(s) on private property) shall be the responsibility of the permittee, its successors and assigns, at no expense to the Department.

APPROVED
DATE: 11-19-21
36-259-1-000000
KENTUCKY TRANSPORTATION CABINET



KENTUCKY TRANSPORTATION CABINET
Department of Highways
PERMITS BRANCH

TC 99-1A
Rev. 10/2020
Page 3 of 4

APPLICATION FOR ENCROACHMENT PERMIT

10. The requested encroachment shall not infringe on the frontage rights of an abutting owner without their written consent as hereinafter described. Each abutting owner shall express their consent, which shall be binding on their successors and assigns, by the submission of a notarized statement as follows, "I (we), _____, hereby consent to the granting of the permit requested by the applicant along Route _____, which permit does affect frontage rights along my (our) adjacent real property." By signature(s) _____, subscribed and sworn by _____, on this date _____.
11. The permit, if approved, is subject to the agreement that it shall not interfere with any similar rights or permit(s) previously granted to any other party, except as otherwise provided by law.
12. Permittee shall include documentation which describes the facilities to be constructed. Permittee, its successors and assigns, agree as a condition of the granting of the permit to construct and maintain any and all permitted facilities or other encroachments in strict accordance with the submitted and approved permit documentation and the policies and procedures of the Department. Permittee, its successors and assigns, shall not use facilities authorized herein in any manner contrary to that prescribed by the approved permit. Only normal usage as contemplated by the parties and by this application and routine maintenance are authorized by the permit.
13. Permittee, its successors and assigns, at all times from the date permitted work is commenced until such time as all permitted facilities or other encroachments are removed from the right-of-way and the right-of-way restored, **shall defend, protect, indemnify and save harmless** the Department from any and all liability claims and demands arising out of the work, encroachment, maintenance, or other undertaking by the permittee, its successors and assigns, related or undertaken pursuant to the granted permit, due to any claimed act or omission by the permittee, its servants, agents, employees, or contractors. This provision shall not inure to the benefit of any third party nor operate to enlarge any liability of the Department beyond that existing at common law or otherwise if this right to indemnity did not exist.
14. Upon a violation of any provision of the permit, or otherwise in its reasonable discretion, the Department may require additional action by the permittee, its successors and assigns, up to and including the removal of the encroachment and restoration of the right-of-way. In the event additional actions required by the Department under the permit are not undertaken as ordered and within a reasonable time, the Department may in its discretion cause those or other additional corrective actions to be undertaken and the Department shall recover the reasonable costs of those corrective actions from the permittee, its successors and assigns.
15. Permittee, its successors and assigns, shall use the encroachment premises in compliance with all requirements of federal law and regulation, including those imposed pursuant to Title VI of the Civil Right Act of 1964 (42 U.S.C. § 2000d et seq.) and the related regulations of the U.S. Department of Transportation in Title 49 C.F.R. Part 21, all as amended.
16. Permittee, its successors and assigns, agree that if the Department determines it is necessary for the facilities or other encroachment authorized by the permit to be removed, relocated or reconstructed in connection with the reconstruction, relocation or improvement of a highway, the Department may revoke permission for the encroachment to remain under the permit and may order its removal, relocation or reconstruction by the permittee, its successors and assigns, at the expense of the permittee, except where the Department is required by law to pay any or all of those costs.

APPROVED
JUNE 21, 2021
KENTUCKY TRANSPORTATION CABINET
36-2021-00599



KENTUCKY TRANSPORTATION CABINET
Department of Highways
PERMITS BRANCH

TC 99-1A
Rev. 10/2020
Page 4 of 4

APPLICATION FOR ENCROACHMENT PERMIT

17. Permittee agrees that the authorized permit is personal to the permittee and shall remain in effect until such time as (a) the permittee's rights to the adjoining real property to have benefitted from the requested encroachment have been relinquished, (b) until all permit obligations have been assumed by appropriate successors and assigns, and (c) unless and until a written release from permit obligations has been granted by the Department. The permit and its requirements shall also bind the real property to have benefitted from the requested encroachment to the extent permitted by law. The permit and the related encroachment become the responsibility of the successors and assigns of the permittee and the successors and assigns of each property owner benefitting from the encroachment, or the encroachment may not otherwise permissibly continue to be maintained on the right-of-way. (Does not apply to utility encroachments serving the general public.)
18. If work authorized by the permit is within a highway construction project in the construction phase, it shall be the responsibility of the permittee to make personal contact with the Department's Engineer on the project in order to coordinate all permitted work with the Department's prime contractor on the project.
19. This permit is not intended to, nor shall it, affect, alter or alleviate any requirement imposed upon the permittee, its successors and assigns, by any other agency.
20. Permittee, its successors and assigns, agree to contain and maintain all dirt, mud, and other debris emanating from the encroachment away from the surrounding right-of-way and the travel way of the highway hereafter and at all times that its obligations under the permit remain in effect.
21. Before You Dig: The contractor is instructed to call 1-800-752-6007 to reach KY 811, the One-Call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that the owners of underground facilities are not required to be members of the KY 811 One-Call Before U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Clerk to determine what utility companies have facilities in the area.
22. The undersigned Utility acknowledges ownership and control of the facilities proposed to be installed, modified, or extended by the Applicant/Permittee and agrees to be bound by the requirements and terms of this application and all related documents making up the approved permit, by the Department's Permits Guidance Manual, and by all applicable regulations and statutes in effect on the date of issuance of the permit. This information and application is certified correct to the best knowledge and belief of the undersigned Utility.

Northern Kentucky Water District

UTILITY

Steve Broering/Denise Manning

NAME (Utility Representative)

Steve Broering

SIGNATURE (Utility Representative)

Engineering Technician/ Administrative Assistant

TITLE (Utility Representative)

06-13-2024

DATE



Know what's below. Call before you dig.

To Submit a Locate Request
24 Hours a Day, Seven Days a Week:
Call 811 or 800-752-6007

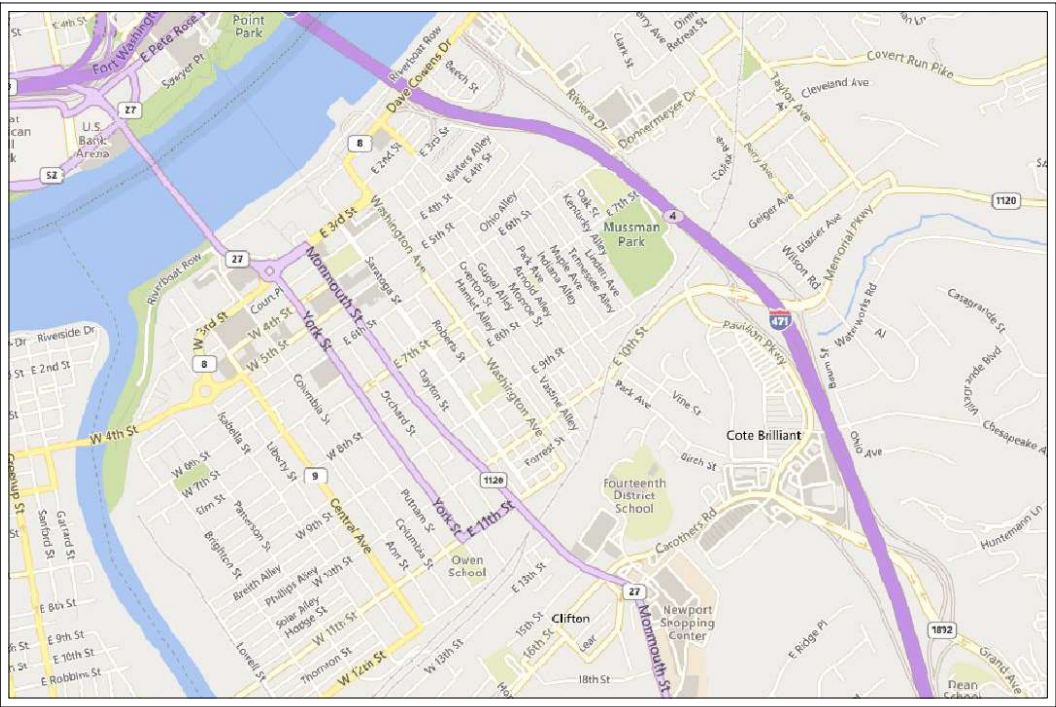
APPROVED
JUN 21, 2024
36-2024-00599
KENTUCKY TRANSPORTATION CABINET

NEWPORT WATER MAIN REPLACEMENT PHASE 3 OF WX21037311

NORTHERN KENTUCKY WATER DISTRICT
CITY OF NEWPORT
CAMPBELL COUNTY, KENTUCKY
JUNE 2024

GENERAL NOTES

- CONTRACTOR TO COORDINATE WITH THE CITY OF NEWPORT FOR ALL REQUIRED TRAFFIC CONTROLS AND DETOURS.
- ALL WORK IN ROADS OR DRIVES SHALL BE PLATED OR BACKFILLED WITH GRANULAR MATERIAL AT THE END OF EACH WORK DAY AND OPENED TO TRAFFIC OR ACCESS DURING NON-WORKING HOURS. IF DRIVES OR WALKS CANNOT BE OPENED, THEY MUST BE PROPERLY BARRICADED.
- CONTRACTOR TO MAINTAIN EMERGENCY TRAFFIC AT ALL TIMES DURING CONSTRUCTION.
- ALL CONSTRUCTION ACTIVITIES AND EQUIPMENT, INCLUDING CLEARING OF TREES AND VEGETATION, SHALL BE CONTAINED WITHIN THE DESIGNATED CONSTRUCTION LIMITS. STORAGE AND STAGING MAY BE ALLOWED OUTSIDE PERMANENT EASEMENTS WITH PRIOR APPROVAL BY OWNER.
- FENCING, WALLS, AND MAILBOXES THAT ARE TAKEN DOWN DURING CONSTRUCTION SHALL BE RESTORED IN KIND. THE COST TO DO SO SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- CONTRACTOR SHALL NOTE THAT ALL UTILITY SERVICE CONNECTIONS AND CROSSINGS ARE NOT SHOWN. CONTRACTOR TO COORDINATE WITH UTILITIES TO FIELD LOCATE PRIOR TO CONSTRUCTION TO PROTECT FROM DAMAGE AND RELOCATE AS NECESSARY TO ACCOMMODATE THE NEW WATER MAIN.



SHEET INDEX - PHASE 3

SHEET	DRAWING TITLE	ISSUE DATE	REV. NO.	REV. DATE
C1.0	TITLE SHEET	06-11-24		
C2.0	WATER MAIN NOTES AND DETAILS	06-11-24		
C3.0 - C3.1	PHASE 3 OVERVIEW	06-11-24		
C4.0 - C4.2	EAST 3rd STREET PLAN & PROFILE	06-11-24		
C5.0 - C5.1	EAST 5th STREET PLAN & PROFILE	06-11-24		
C6.0 - C6.2	EAST 7th STREET PLAN & PROFILE	06-11-24		
C7.0 - C7.2	ROBERTS STREET PLAN & PROFILE	06-11-24		
C8.0	OAK STREET PLAN & PROFILE	06-11-24		
C9.0 - C9.3	LINDEN AVENUE PLAN & PROFILE	06-11-24		

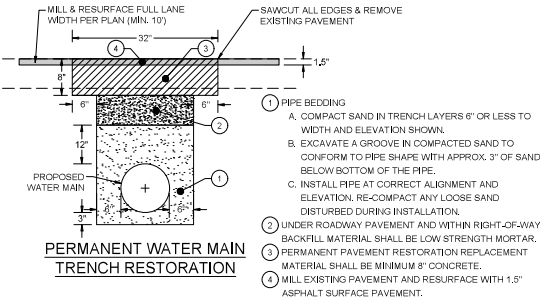
BASEMAP LEGEND

⊙ -Ex Sanitary M.H.	⊙ -Ex Elec. Box
⊙ -Ex Sanitary Clean Out	⊙ -Ex Light Pole
⊙ -Ex Storm M.H.	⊙ -Ex Yard Light
⊙ -Ex Storm Catch Basin	⊙ -Ex Utility Pole
⊙ -Ex Storm Yard Drain	⊙ -Ex Guy Wire
⊙ -Ex Storm Down Spout	⊙ -Ex Guy Pole
⊙ -Ex Fire Hydrant	⊙ -Ex Transformer
⊙ -Ex Water Valve	⊙ -Ex Air Conditioning
⊙ -Ex Water Meter	⊙ -Ex Sign
⊙ -Ex Fire Connection	⊙ -Ex Post
⊙ -Ex Gas Valve	⊙ -Ex Ballard
⊙ -Ex Gas Meter	⊙ -Ex Flag Pole
⊙ -Ex Gas Marker	⊙ -Ex Traffic Flow
⊙ -Ex Tele. Box	⊙ -Ex Deciduous Tree
⊙ -Ex Unidentified M.H.	⊙ -Ex Evergreen Tree
⊙ Found Iron Pin (cap as noted)	⊙ Set Benchmark
⊙ Found Iron Pipe	⊙ Found Conc. Mon.
⊙ Found MAG Nail	⊙ Found Cross Notch
	⊙ Found Misc.



AREA MAP

1" = 1000 FT



ENGINEER
BAYER BECKER
209 GRANDVIEW DRIVE
FORT MITCHELL, KENTUCKY 41017

OWNER
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
ERLANGER, KENTUCKY 41018

Northern Kentucky
Water District

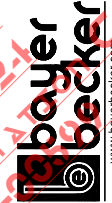


THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN HAVE BEEN OBTAINED BY FIELD CHECKS AND INFORMATION PROVIDED BY THE UTILITY COMPANIES. IT IS BELIEVED THAT THEY ARE CORRECT BUT THE PREPARED DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS. THEREFORE, ALL UNDERGROUND UTILITIES SHALL BE FIELD LOCATED PRIOR TO CONSTRUCTION. FOR MORE INFORMATION USE NUMBER SHOWN.

**NEWPORT WATER MAIN
REPLACEMENT - PHASE 3**

CITY OF NEWPORT
CAMPBELL COUNTY, KENTUCKY

TITLE



Fort Mitchell, KY 41011-6692

Drawing: 22-0151 TS
Drawn by: JMH
Checked By: TRA
Issue Date: 02-23-2024

Sheet:
C1.0

WATER MAIN CONSTRUCTION NOTES:

- 1.) The contractor must submit documentation of similar experience to the Northern Kentucky Water District (NKWD) for their approval for consideration of the bid. The contractor will schedule a preconstruction meeting with the NKWD prior to starting construction.
- 2.) Prior to starting construction of the main, the contractor shall expose the existing main at the tie-in points at the ends of the project and at the intersecting streets for verification by NKWD.
- 3.) The shutdown period for transfer to the new main will be coordinated with NKWD.
- 4.) The existing water mains shall remain in service at all times during construction. The contractor shall obtain approval and coordinate all temporary disconnections of service, shut downs, transfers to the new main, and taps of the water main with the NKWD. Every reasonable effort shall be made to provide water service at all times during construction.
- 5.) All water main construction shall conform to the latest edition of the NKWD Standard Specifications and Drawings for the installation of water mains.
- 6.) All water main shall be C-900 PVC push on joint pipe (DR 18, pressure class 150) AWWA C-900 with tracing wire and DIP Class 50 push on joint pipe with polyethylene wrap and tracing wire as noted on the plans.
- 7.) Maximum deflection at pipe joints shall be per manufacturer's specifications but not to exceed five degrees (5°) for 6", 8", and 12" water mains and three degrees (3°) for 16" water mains.
- 8.) All fittings, bends, valves, and fire hydrant leads shall be ductile iron with polyethylene wrap.
- 9.) All thrust blocking shall be constructed per the NKWD Standard Specifications and Drawings.
- 10.) Trenching, bedding, and backfilling shall be completed per the NKWD Standard Specifications and Drawings with low strength mortar backfill required in pavement limits and within 2' of the edge of pavement.
- 11.) Concrete for drives, sidewalks, curbs, and pavement shall be KDOT 601 Class AA, $f_c' = 4000$ psi, 28-day compressive strength mix. Concrete for pavement replacement areas shall be a minimum 8" thick.

- 12.) Expansion material shall be $\frac{3}{4}$ " thick and installed at the following:
- A.) At all concrete pavement, drives, curbs, walks, etc.
 - B.) At all fixed objects (i.e. - utility covers, valves, manholes, etc.)
 - C.) At all rigid structures (i.e. - drives, curbs, steps, etc.)

- 13.) Asphalt surface mixture for pavement replacement areas shall be 2" depth per Kentucky Transportation Cabinet Spec. 403. Tack coat and edge sealing shall be provided at all sawcuts and joints.

- 14.) Contractor to provide sufficient signs, warning lights, barricades, or other necessary devices to maintain traffic at all times per the Manual on Uniform Traffic Control Devices (MUTCD). Every reasonable effort shall be made to keep all roads open at all times and written approval is required for any proposed closure. Residents should also be provided access to their drives at all times and in the event of driveway reconstruction, the homeowner shall be notified and on street parking shall be provided.

- 15.) All disturbed areas are to be restored (seeded and mulched) by the contractor and shall proceed with job progression. The contractor shall also be responsible for removing any excess materials at the site and shall maintain all seeded and mulched areas until project completion and final inspection. A residential yard shall be restored within thirty (30) days after construction.

- 16.) All trenches shall be properly secured and barricaded during construction and at the end of each construction day.

- 17.) All O.S.H.A., state, and local safety regulations shall be followed during construction of this project.

- 18.) All water main shall have a minimum 42" of cover for 6", 8", 12", and 16" unless otherwise shown or noted on the plans.
- 19.) The proposed water main profile has been provided in these plans. The price of all fittings, valves, hydrants, etc, shall include all required extensions for proper finish elevation.

- 20.) The location of the existing utilities shown are approximate. All utilities should be field marked & their location (horizontal and vertical) be verified prior to construction.

- 21.) The cover on all existing water mains are assumed to be 3' to the top of the main. The depths of all mains at crossovers, etc, shall be field verified. Lower water main under utilities are required.

- 22.) Water mains crossing sewers shall be laid to provide a vertical distance of 18 inches between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the water main joints will be equidistant and as far as possible from the sewer joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to prevent damage to the water main.

- 23.) Water mains shall be laid at least 10' horizontally from any existing or proposed sewer. The distance shall be measured edge to edge.

- 24.) Please contact the design engineer before making any deviations greater than reasonable construction tolerances from the plans or specifications.

- 25.) The contractor shall be responsible for abandoning the existing main upon installation of and transfer of water service to the new water main. The contractor shall also remove and abandon all existing valve boxes, covers and assemblies and fire hydrants and backfill with low strength mortar at the direction of the NKWD. Cost is incidental to the contract and no additional payment will be made.

- 26.) The details shown on this page are for information purposes only. Refer to the latest edition of the NKWD Standard Specifications and Drawings for the Installation of Water Mains for the most current details and notes.

- 27.) All applicable recommendations in Kentucky's Best Management Practices Manual shall be followed by the contractor, including inlet protection and seeding of disturbed ground.

- 28.) The contractor shall limit their work area to the rights-of-way and easements as shown on these plans unless written permission is given by the property owner an approved by the NKWD.

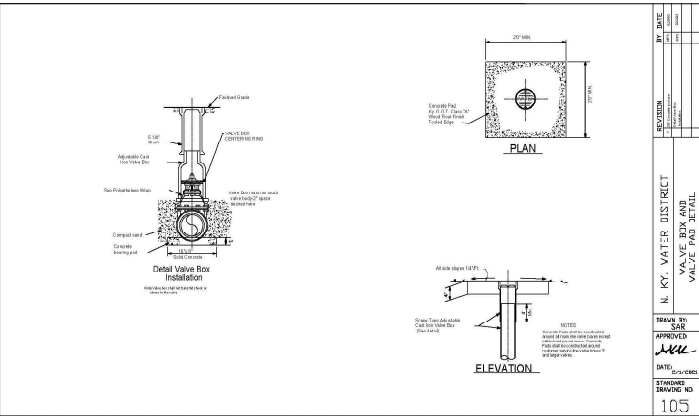
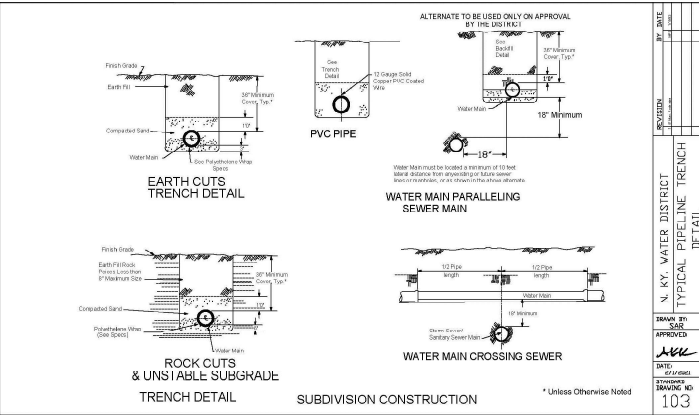
UTILITIES:

- 1.) The Contractor shall verify the locations and elevations of all existing utilities prior to construction. The locations and elevations of existing utilities, as indicated on the drawings, are for informational purposes only. No responsibility is assumed for the accuracy or completeness of this information. All utilities must be marked and their horizontal and vertical location field verified by the Contractor prior to starting construction. The Contractor shall not cut or disconnect any existing utilities without prior approval from the appropriate agency.

- 2.) During construction the contractor shall protect from damage all existing utilities, whether shown on the contract drawings or not. If damage is caused, the contractor shall be responsible for the repair or restoration of same to the satisfaction of the Owner or Utility Owner at the contractor's sole expense. Electric service, gas service, water service, telephone and cable service, and other utility lines may be located in the proximity of the work area. The Contractor shall be responsible for:
- a. Contacting the individual utility owners ten (10) days prior to construction and advising them of the work to take place.
 - b. Soliciting their aid in locating and protecting or relocating any utility that may interfere with construction.
 - c. Test pitting and verifying the horizontal and vertical location for each utility in the project vicinity before starting construction.
 - d. All damage to any existing utility, and repair thereof.
 - e. Contacting the Kentucky Underground Protection Inc. (KUPI 1-800-752-8007) 48 hours minimum prior to construction.
 - f. Contractor shall perform all work necessary to restore all existing utilities whether shown or not, encountered or disturbed during construction to before construction conditions or better, as acceptable to the utility owner.

- 3.) Where potential elevation conflicts may occur with existing utilities, the Contractor shall uncover such utilities sufficiently in advance of construction in order that exact elevations may be determined and the necessary adjustment made. The cost of the location and adjustment work, if any, shall be included in the total cost for the project. No additional payment will be made.

- 4.) Adjustments to line and grade of the new piping or existing utilities shall be made by the Contractor to avoid conflicts with the existing utilities and new piping.
- a. Any adjustments in line of the new piping shall be at the Contractor's sole expense. No additional payment will be made.
 - b. Adjustments in depth of 24.0-inches or less necessary for the new pipeline or existing utilities because of utility or grade conflicts shall be installed as directed by the Owner's representative. All Costs for this work shall be included in the Contractor's Bid. No additional costs will be paid by the Owner.



UTILITIES (cont'd):

- 5.) The following are known owners of utilities in the project area, and shall be notified 48 hours prior to construction to field-locate said utilities:

GAS AND ELECTRIC Duke Energy Elec. Matt Coleman (513) 458-3943 Gas: Scott Pfefferman (513) 315-4593 2010 Dana Avenue - EF 324 Cincinnati, OH 45207	TELEPHONE Altairfiber Overhead: Jeff Beierlein (513) 314-3411 Underground: Jodi Geiman (513) 240-6600 201 E. Fourth Street, Bldg. 343 Cincinnati, OH 45202	WATER Northern Kentucky Water District 2835 Crescent Springs Road P.O. Box 18640 Erlanger, KY 41018 (859) 426-2718	SANITARY SEWER Sanitation District No. 1 Andy Aman (859) 578-6880 1045 Eaton Drive Fort Wright, KY 41017	STORM WATER Sanitation District No. 1 Jason Burlage (859) 578-6892 1045 Eaton Drive Fort Wright, KY 41017
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- 6.) Contractor shall be responsible for coordinating support or temporary relocation of all existing overhead utilities affected by the proposed construction.

- a. Where pole or anchors that support overhead electric facilities are exposed or otherwise interfered with, the contractor shall coordinate with the utility to protect them from damage and provide temporary support to insure the integrity of the system. As soon as feasible, the contractor shall take additional appropriate steps to provide permanent measures to restore support. The methods used shall be based on conditions to be determined by the utility.
- b. Where the depth of excavation for the proposed work is greater than 5 feet, the contractor shall shield and shore the trench and coordinate with the utility to continuously maintain the support of electric facilities at location where the electric facilities are within the zone of influence adjacent to the excavation as determined by the natural angle of the repose of the soil.
- c. All damage to electric facilities and services requiring adjustments, relocations and/or repairs will be made at the contractor's cost.

Contractor shall not backfill exposed electric facilities until the company has inspected its facility or performed any adjustments and/or maintenance that may be required.

PAVING:

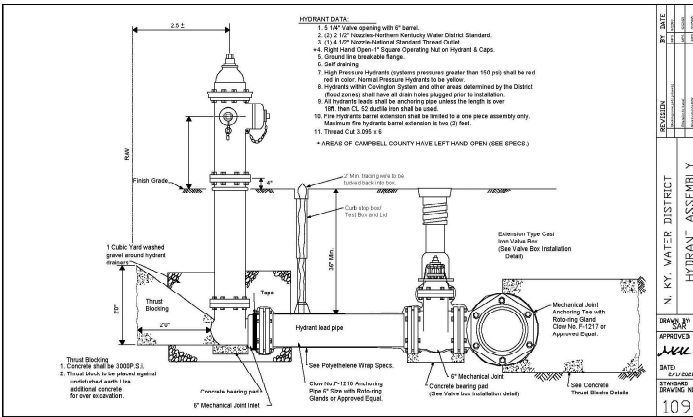
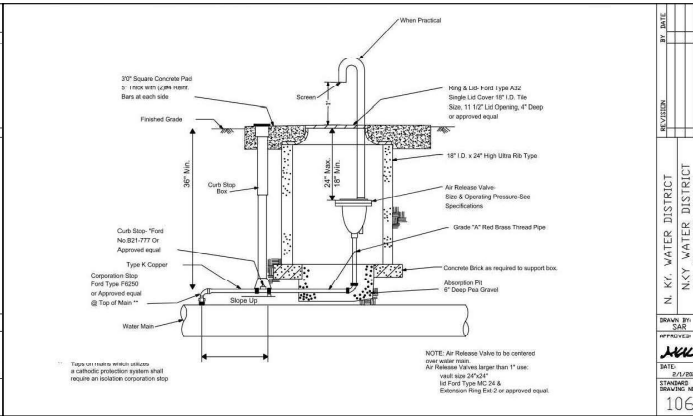
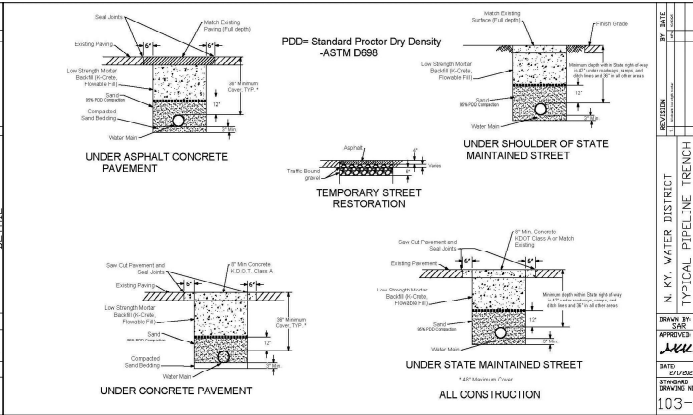
- 1.) All pavement cuts shall be saw cut and neatly patched to match existing pavement section. All costs for such pavement cuts, patching, and overlays as required shall be included in the contractor's bid.
- 2.) Contractor shall restore disturbed pavement after construction, shall minimize inconvenience to traffic during construction, and shall provide smooth transitions to existing pavement, paving materials and construction thereof shall be in accordance with the KYTC standard specifications and the project specifications.
- 3.) Construction access roads, existing pavement or gravel roads, and driveways if removed, disturbed, or damaged by contractor's work shall be maintained by contractor and restored or replaced to existing or better than pre-construction conditions after work is complete, the cost of this restoration or replacement shall be included in the total cost for the project. No additional payment will be made.

SAFETY ADVISORY:

- 1.) Protection of persons and property: Barricade open excavations occurring as part of this work as required to maintain vehicular and pedestrian safety. Provide all necessary barriers, warning lights, signage, flagman, and other measures as required to maintain public safety as designated on the plans, directed by the owner, and as recommended by their authorities having jurisdiction.

PROHIBITED CONSTRUCTION ACTIVITIES:

- 1.) Indiscriminate or arbitrary operation of equipment outside the easement/right-of-way limits is prohibited.
- 2.) Pumping of sediment-laden water from trenches or other excavation directly into storm sewers is prohibited; all such water shall be properly filtered or settled to remove silt prior to discharging into any drain.

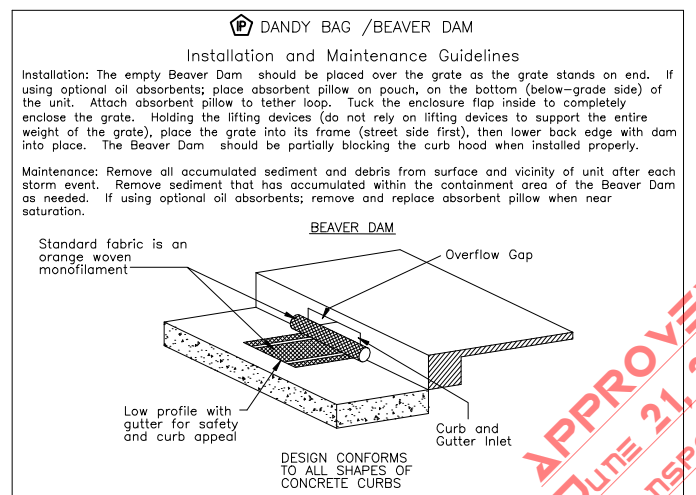
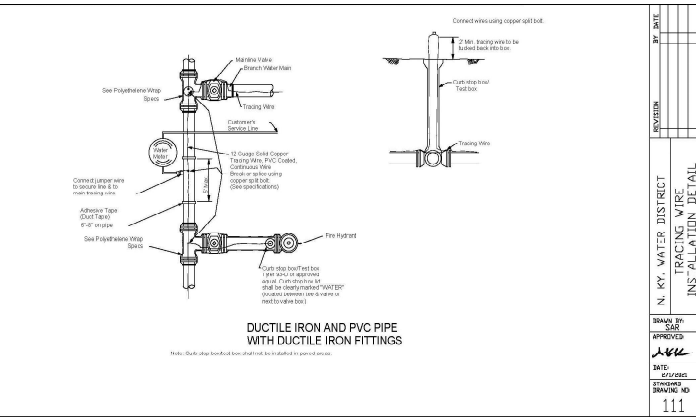
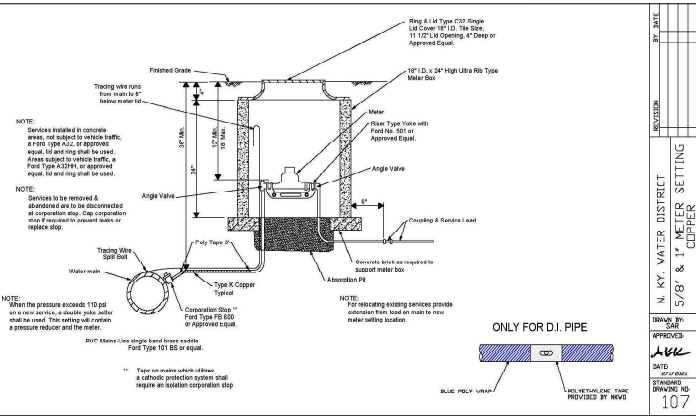
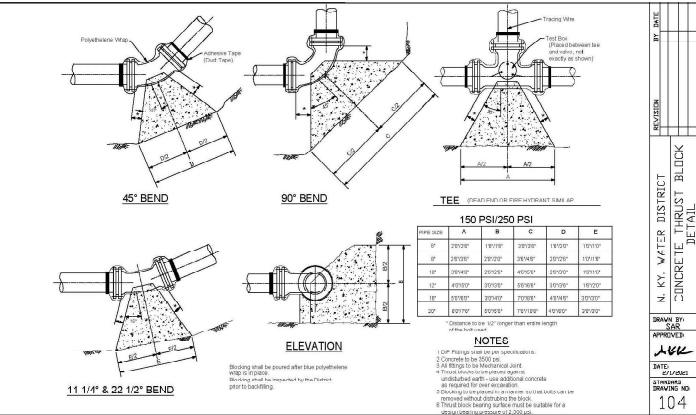


CLEARING & GRUBBING & PROTECTION OF TREES:

- 1.) Clearing and grubbing shall not commence until the contractor is prepared to start construction, and erosion control measures are installed and in place. Contractor shall be responsible for disposing of all stumps, brush, debris, and trees in a legal and environmentally sound manner. Items shall be removed only as directed by the owner or engineer.
- 2.) The contractor shall avoid any unnecessary damage to trees, within temporary construction limits or easement areas without the prior approval of the owner and engineer; this includes work and staging areas obtained by the contractor by means of private agreement with property owners. Tree branches which overhang the construction limits and which interfere with the operation of equipment shall be tied back to avoid damage. Where injury to branches is unavoidable, the branches shall be sawed off neatly at the trunk or main branch and the cut area shall be painted with approved tree paint immediately. Any trees damaged beyond saving shall be removed by contractor at his own expense. In the case of trees located outside the construction limit area, restitution acceptable to the property owner shall be provided by the contractor.

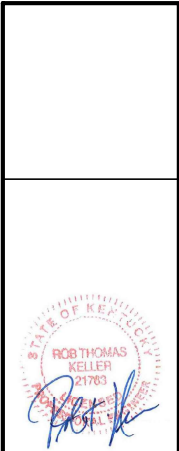
EROSION AND SEDIMENTATION CONTROL:

- 1.) Provide and maintain erosion protection using straw bales, inlet protection, and any other erosion prone areas as directed by the Owner or Engineer. This requirement pertains also to haul and access roads. Note details for erosion protection elsewhere within the drawings and specifications. Erosion control measures shall be installed prior to initial construction activities or as soon as practical.
- 2.) The Contractor shall control wastes, garbage, debris, wastewater, and other substances on the site in such a way that they shall not be transported from the site by the action of winds, storm water runoff, or other forces. Proper disposal or management of all wastes and unused building material, appropriate to the nature of the waste or material, is required. Compliance is required with all state or local regulations regarding waste disposal, sanitary sewer, or septic systems.
- 3.) Remove only those trees required for actual construction.
- 4.) Immediately following trench backfill, rough grade all disturbed areas and permanently stabilize each disturbed area with perennial vegetation installed according to the landscaping section of the specifications. If final grading and seeding will not occur within 15 days, all disturbed areas shall be temporarily seeded and/or mulched immediately.
- 5.) Final grading shall be consistent with pre-construction topography. It shall be completed in any given area as soon as it is no longer needed for trafficking of equipment and materials. Final restoration shall immediately follow final grading.
- 6.) All excess spoil material is to be removed promptly and disposed of in an environmentally sound manner. If such material is wasted on site, it shall be seeded immediately. Waste or disposal areas and construction roads shall be located and constructed in a manner that shall keep sediment from roadways.
- 7.) All temporary erosion and sediment control practices shall be removed and disposed of within thirty days after final site stabilization is achieved or after the temporary practices are no longer needed. Trapped sediment shall be permanently stabilized to prevent further erosion.
- 8.) If work is suspended for any reason, the Contractor shall maintain the erosion and sedimentation controls during the suspension at no additional cost to the Owner.



NOTE:

DETAILS CONTAINED ON THIS SHEET ARE FOR REFERENCE ONLY. CONTRACTOR TO REFER TO THE MOST CURRENT NORTHERN KENTUCKY WATER DISTRICT STANDARD DETAILS AND DRAWINGS.



Item	Date	Drawn	Checked	Revision Description
1	02-23-24	JMH	RTK	30% REVIEW SET TO NKWD
2	05-08-24	JMH	TRA	30% REVIEW SET TO NKWD
3	06-11-24	JMH	TRA	ISSUED FOR PERMIT

NEWPORT WATER MAIN REPLACEMENT - PHASE 3

CITY OF NEWPORT
CAMPBELL COUNTY, KENTUCKY

NOTES AND DETAILS

Boyer Becker
www.boyerbecker.com
208 W. Main Street, Suite 100
Fort Mitchell, KY 41111 • 569-2611

Drawing: 22-0151 TS
Drawn by: JMH
Checked by: TRA
Issue Date: 02-23-24
Sheet: C2.0



**KYTC Division of Maintenance
Permits Branch
District 6**



ENCROACHMENT PERMIT GENERAL NOTES & SPECIFICATIONS

YOU MUST NOTIFY KYTC BEFORE BEGINNING ANY WORK IN THE RIGHT-OF-WAY. *Failure to alert KYTC of working within the right of way may result in permit revocation.*

Two ways to notify KYTC of your construction start date:

By Email: KYTCD6PERMITS@KY.GOV

**must include permit number and county in subject line*

By Phone: 859-341-2700

**must know permit number and county when calling*

YOU MUST ALSO NOTIFY KYTC UPON COMPLETION OF WORK WITHIN RIGHT-OF-WAY. *Failure to alert KYTC of completion of work may result in withholding release of any associated bonds.*



APPROVED
JUNE 21, 2024
KENTUCKY TRANSPORTATION CABINET
06-2024-00599

I. SAFETY**A. General Provisions**

- ☒ All signs and control of traffic shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways, latest edition, Part VI, and safety requirements shall comply with the Permits Manual. Federal law requires that traffic control shall be implemented in accordance with MUTCD standards and KYTC's Standard Specifications for Road and Bridge Construction (KYTC SSRBC) under the supervision of a certified Work Zone Traffic Control Supervisor.
- ☒ All work necessary in shoulder or ditch line areas of a state highway shall be scheduled to be promptly completed so that hazards adjacent to the traveled way are kept to an absolute minimum.
- ☒ No more than one (1) traveled-lane shall be blocked or obstructed during normal working hours. All signs and flaggers during lane closure shall conform to the MUTCD. The traveled-way and shoulders shall be kept clear of mud and other construction debris at all times during construction of the permitted facility. No non-construction equipment or vehicles or office trailers shall be allowed on the right of way during working hours. The right of way shall be left free and clear of equipment, material, and vehicles during non-working hours.
- ☒ When necessary to block one (1) traveled-lane of a state highway, the normal working hours shall be as directed by the Department. No lanes shall be blocked or obstructed during adverse weather conditions (rain, snow, fog, etc.) without specific permission from the Department.
- ☒ Working hours shall be between 9:00 AM and 3:00 PM. Further date and time restrictions are as follows:

One lane of traffic on Monmouth Street must be maintained at all times.

B. Explosives

- ☒ No explosive devices or explosive material shall be used within state right of way without proper license and approval of the Kentucky Department of Mines and Minerals, Explosive Division.

C. OSHA

- ☒ Kentucky Occupational Safety and Health Standards for the construction industry, which has the effect of law, states in part: (Page 52, 1926.651, Specific Excavation Requirements) "Prior to opening an excavation, effort shall be made to determine whether underground installations, (sewer, telephone, water, fuel, electric lines, etc.) will be encountered, and if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation."

D. Archaeological

- ☒ Whenever materials of an archaeological nature are discovered during the course of construction work or maintenance operations, contact shall be made immediately with the Division of Environmental Analysis, which maintains an archaeologist on staff, or with the Office of the State Archaeologist located at the University of Kentucky. Following this consultation, further action shall be decided on a case-by-case basis by the State Highway Engineer or the Transportation Planning Engineer or their designated representative.

E. Environmental

- ☒ If the activity to which this permit related disturbs one acre or more of land, you must obtain KPDES KYR10 permit. Information can be found at <http://water.ky.gov/permitting/Pages/GeneralPermits.aspx>

F. Additional Notes

- ☐ The following additional notes apply to this permit:

APPROVED
JUNE 21, 2024
KENTUCKY TRANSPORTATION CABINET
06-2024-00599

II. UTILITIES

- ☒ The permittee shall be responsible for any damage to existing utilities. Any utility modifications or relocations within state right of way necessary, as determined by the Department or by the owner of the utility, shall be at the expense of the permittee and subject to the approval of the Department. Operators of underground utilities in right of way shall be members of Kentucky 811.
- ☐ All existing manholes and valve boxes shall be adjusted to be flush with finished grade.
- ☒ All pavement cuts shall be restored per Kentucky Transportation Cabinet standards and specifications.
- ☒ Any excavation within 3' of edge of pavement will require flowable fill as backfill.
- ☐ The clear zone requirement shall be met to the extent possible in accordance with the Roadside Design Guide.
- ☐ Encasement pipe shall conform to current standards for highway crossings in accordance with the Permits Manual. Pipe encasing shall not be required if the pipe crossing is 2" or less.
- ☐ Aerial crossing of utility lines shall have a minimum clearance from the high point of the roadway to the low point of the line of 24' on fully controlled access highways and 18' on non-fully controlled access highways
- ☒ Minimum depth for underground Gas and Electric lines is 60" under roadways, ramps, and ditch lines and 42" in all other areas within state right of way. The minimum depth for all other utilities is 42" in all areas.
- ☒ When steel plates are installed over an open excavation in the roadway, they must be anchored to the pavement and have asphalt applied to all exposed edges and an MUTCD approved sign noting "Road Plates Ahead." KYTC must be notified of the location, date, time, and permit number associated to BOTH the installation and removal of the plate. Failure to do so may result in permit revocation.
- ☐ Utility poles moved for replacement must be removed in their entirety and the hole left behind must be backfilled.
- ☐ No poles or anchors shall be installed in a roadside ditch.
- ☐ **Utility notes specific to fully-controlled access highways ONLY:**
All work necessary within the right-of-way shall be performed behind a temporary fence erected prior to the start of work. The temporary woven wire fence shall be removed immediately upon completion of work on the right-of-way, and the control of access immediately restored to original condition, in accordance with applicable KYTC SSRBC. All vents, valves, manholes, etc., shall be located outside of the right-of-way. Encasement pipe shall extend from right-of-way line to right-of-way line and shall be one continuous run of pipe. The encasement pipe shall be welded at all joints. The boring pit and tail ditch shall extend past the existing toe of slope or bottom of ditch line and shall be a minimum of 42 inches deep. Work in interstate right-of-way requires approval from FHWA (Federal Highway Administration).
- ☐ Additional notes:

APPROVED
JUNE 21, 2024
KENTUCKY TRANSPORTATION CABINET
06-2024-00599

III. DRAINAGE

- ☒ Negative impacts to existing drainage will be the applicant's responsibility to repair in accordance with KYTC SSRBC.
- ☐ All pipe shall be laid in a straight alignment, to proper grades, and with all materials and methods of installation including bedding and joint seating. Pipe shall not be covered until inspected by the Department and express permission obtained to make backfill. It is the applicant's responsibility to request inspection.
- ☐ All gutter lines at the base of new curbs shall be on continuous grades, and pockets of water along with curbs or in entrance areas or other paved areas within the right-of-way shall not be acceptable.
- ☐ All drainage structures and appurtenances (manholes, catch basins, curbing, inlet basins, etc.) shall conform to the Department specifications and shall be constructed in accordance with the KYTC's Standard Drawings.
- ☐ Additional notes:

IV. PAVING

- ☐ No bituminous pavement shall be installed within the right of way between November 15 and April 1, nor when the temperature is below 40 degrees Fahrenheit, without the express consent of the Department. No bituminous pavement shall be installed when the underlying course is wet.
- ☐ Paving within the right of way shall be as follows:
- Base (Type): **Match Existing**, (Thickness) **Match Existing**
 - Surface Base (Type) **Match Existing**, (Thickness) **Match Existing**
 - Finished Surface (Type) **Match Existing**, (Thickness) **Match Existing**
- ☐ All materials and methods of construction, including base and subgrade preparation, shall be in accordance with KYTC's Standard Specifications. At least 24 hours notice to the Department is required prior to beginning paving operations.
- Phone: **859-341-2700** Name: **Kenny Kool**

- ☒ Utility companies performing road cuts must restore the pavement to pre-existing condition. Pictures/videos are recommended to ensure proper placement of signs and lane markers that are temporarily removed for paving operations. In some cases, a pre-work inventory may be requested from the Department.
- ☐ Existing pavement and shoulder material shall be removed to accommodate the above paving specifications.
- ☒ The finished surface of all new pavement within the right of way shall be true to the required slope and grade, uniform in density and texture, free of irregularities, and equivalent in riding qualities to the adjacent highway pavement or as determined by KYTC.
- ☐ To ensure proper surface drainage, the new pavement shall be flush with the edge of existing highway pavement and shall slope away from the existing edge of the pavement as specified in drawings.
- ☒ Existing edge of pavement shall be saw-cut to provide a straight and uniform joint for new pavement, and an edge key will be installed in the overlap. An approved joint sealer, in accordance with Kentucky Department of Highways Standard Specifications (latest edition), shall be applied between new and existing pavements.

- ☐ Additional notes:

APPROVED
JUN 24 2024
KENTUCKY TRANSPORTATION CABINET
06-2024-00599

V. ENTRANCES

- ☐ Encroachment permits issued by KYTC in no way supersede local planning/zoning requirements or subdivision regulations. KYTC has no authority with zoning changes.
- ☐ Commercial entrances must be paved to the right-of-way line. Any deviations must be approved by KYTC before installation.
- ☐ KYTC can dictate drainage improvement installation during construction or after entrance is at final grade. The permit release does not release the permit applicant from drainage maintenance.
- ☐ Signs (ground-mounted and span-mounted), stop bars, crosswalk, and proper lane markings must be in-place before entrance is open for traffic. Lane width modifications must be approved by the Department.
- ☐ Guardrail installation must be pre-approved by the Department and installed by a KYTC pre-qualified contractor. Any guardrail that is removed during construction must be returned to the local KYTC maintenance facility.
- ☐ Additional notes:

VI. TRAFFIC

- ☒ Any contractor performing work within the vicinity of KYTC roadway lighting or traffic signals, must request locates from the KYTC District 6 Traffic section at least one week before of starting work in the right-of-way.
- ☒ Applicant must maintain all KYTC Roadway signage that is impacted by the permitted work. In the event that any signs have to be moved, it is the applicant's responsibility to mark the sign's location before removal and to install the original or new sign per KYTC standards for sign installation.
- ☒ Any thermoplastic or striping damaged during the encroachment must be restored in a timely manner per KYTC standards. Stopbars, arrows, and crosswalks must be thermoplastic material, paint is not acceptable. This work must be performed by a KYTC pre-qualified contractor.
- ☒ Excavating near a signal, lighting pole, or anchoring facility must be done so that it does not impact the structural integrity of the pole. Any work that requires a temporary support or anchoring must receive prior approval.
- ☐ If the scope of the permit involves a signal build or rebuild, it is the applicant's responsibility to apply for power service (and pay monthly electrical bill) as well as request electrical inspection from the KYTC District 6 Traffic section. If the signal modifications require timing or phasing changes this must be requested at least two weeks in advance of the signal's turn-on date. KYTC will not take ownership of permitted signals until the electrical inspection is formally accepted and approved.
- ☒ Work which impacts traffic loops requires 48-hour notice to the KYTC District 6 Traffic section at 859-341-2700. Accidental damage of a traffic loop must be reported immediately to KYTC District 6's emergency line at 859-620-2738. Any disturbed traffic loops must be replaced in a timely manner. Traffic loops out of operation for more than five working days will subject the applicant to the cancellation of the permit. Loop repair must be performed by a KYTC pre-qualified contractor.

☐ Additional Notes:

APPROVED
JUNE 21, 2024
KENTUCKY TRANSPORTATION CABINET
06-2024-00599

VII. SIDEWALK SPECIFICATIONS

☐ All sidewalk modifications, retrofitting, or installations must meet current ADA guidelines

A. New Sidewalks

☐ New sidewalk specifications, dimensions, and designs shall be in accordance with KYTC's latest edition of the Standard Specifications, or with the plans provided on the permit if approved by a KYTC D6 Construction or Permits Engineer.

☐ All materials and methods of construction, including curing, shall be in accordance with KYTC's latest edition of the Standard Specifications.

B. Existing Sidewalks

☐ Use of the sidewalk shall not be blocked or obstructed and a usable walkway shall be maintained across the construction area at all times per MUTCD . Sidewalk closures must be approved by the Department before implementation.

☐ The location of ADA ramps (truncated domes/tactile warnings/etc.) will need to be field verified by KYTC before installation.

☒ Any section of sidewalk that becomes damaged shall be entirely replaced to match existing sections.

☐ Additional notes:

VIII. RIGHT OF WAY RESTORATION

☒ All disturbed portions of the right of way shall be restored to grass as per Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition). A satisfactory turf, as determined by the Department, shall be established by the permittee prior to release of indemnity. Sodding or seeding shall be as follows:

☒ Slopes 3:1 or Less: 90% Kentucky 31 Tall Fescue and 10% White Dutch Clover at 100 lbs/acre

☒ Slopes Greater than 3:1: 90% Kentucky 31 Tall Fescue and 10% Partridge Pea at 100 lbs/acre

☒ Urban or Residential Areas: 95% Turf Type Fall Fescue Blend and 5% White Dutch Clover at 275 lbs/acre

☒ Two tons of clean straw mulch per acre of seeding.

☒ Prior to seeding, the ground shall be prepared in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

☐ Substitutes for sod such as artificial turf, rocked mulch, or paved areas may be acceptable if they are aesthetically pleasing and receive prior approval from KYTC.

☐ All ditch-flow lines and all ditch-side slopes shall be sodded.

☒ Existing concrete right of way markers shall not be disturbed. If damaged in any way, they shall be entirely replaced by the permittee with new concrete markers to match the original markers, in accordance with Kentucky Department of Highways Standard Drawings. Markers that are entirely removed shall be re-established in the proper locations by the permittee and to the satisfaction of the Department.

☐ Additional notes:

APPROVED
JUNE 21, 2024
KENTUCKY TRANSPORTATION CABINET
06-2024-00599

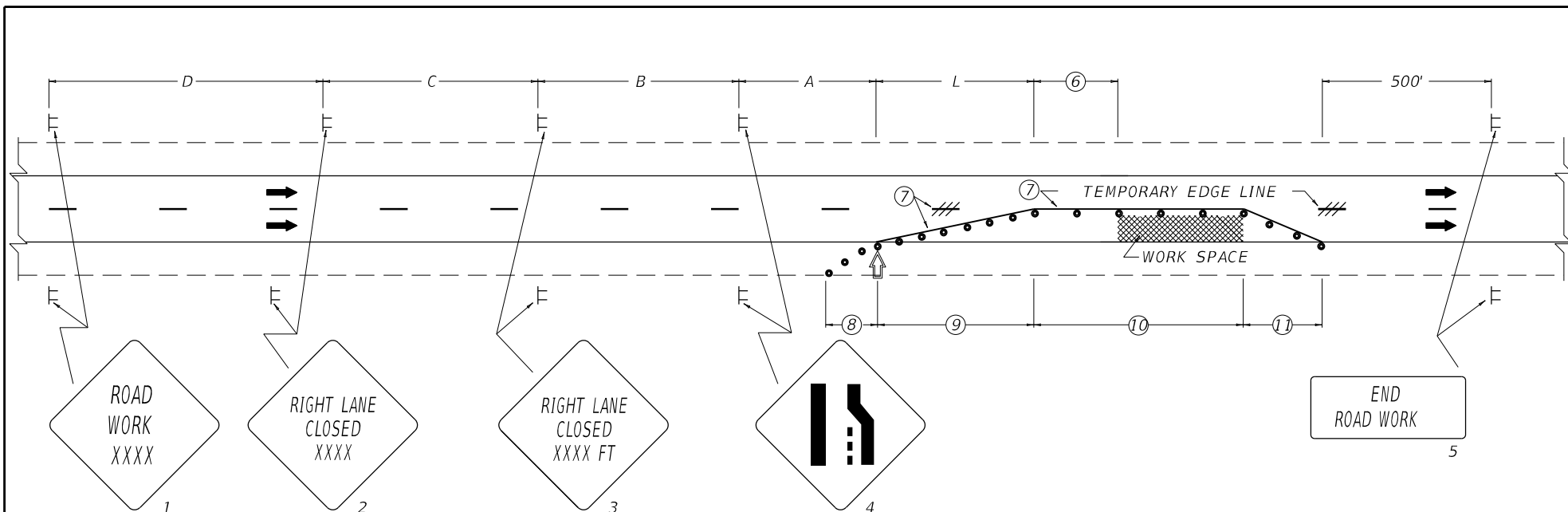
IX. RIGHT OF WAY FENCE RESTORATION

- ☐ The replacement fence shall be a height of at least 48 inches and shall be of sufficient density to protect against encroachment.
- ☐ The replacement fence shall be a minimum of 1 foot and a maximum of 2 feet outside the right-of-way line
- ☐ The fence materials and design shall meet accepted industry standards and be treated as paintable. Durable finish materials such as vinyl are acceptable.
- ☐ The permittee shall be required to construct and maintain the replacement fencing to an acceptable level of functionality and state of repair. All work on the fencing shall be performed by access from the private property. Access from the roadway is not allowed.
- ☐ The existing fence shall be removed by permittee and stored at the Department's maintenance storage yard for future reuse by the Department, or the Department shall be reimbursed the cost of fencing removed.
- ☐ Right of way monuments shall be installed regardless of if replacement fence is installed or not.
- ☐ The control of access shall not be diminished as a result of replacement of the fence.
- ☐ Additional notes:

X. MISCELLANEOUS NOTES**NOTICE TO PERMITTEE**

THE PERMITTEE AGREES THAT ALL WORK WITHIN THE EXISTING RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH THE CURRENT KYTC STANDARD SPECIFICATIONS AND THE PLANS AS APPROVED AND PERMITTED BY AN ENCROACHMENT PERMIT. ANY CHANGES OR VARIANCES MADE AT THE TIME OF CONSTRUCTION WITHOUT WRITTEN APPROVAL FROM THE DEPARTMENT OF HIGHWAYS SHALL BE REMOVED BY THE PERMITTEE AT NO EXPENSE TO THE DEPARTMENT OF HIGHWAYS AND SHALL BE REDONE BY THE PERMITTEE TO CONFORM WITH THE APPROVED PLANS.

APPROVED
06-2024-00599
Kentucky Transportation Cabinet



~ NOTES ~

1. IF MEDIAN IS NOT WIDE ENOUGH TO MAINTAIN LATERAL CLEARANCES SHOWN IN MUTCD, SIGNS 1 THRU 5 SHALL NOT BE DUAL MOUNTED.
2. THE SIZE OF SIGNS 1 THRU 4 SHALL BE 48" X 48" FOR EXPRESSWAYS/FREEWAYS. THE MINIMUM SIZE OF SIGNS 1 THRU 4 SHALL BE 36" X 36" FOR OTHER ROADWAYS. SIGN NO. 5 SHALL BE 48" X 24" FOR EXPRESSWAYS/FREEWAYS AND 36" X 18" FOR OTHER ROADWAYS. A FREEWAY IS DEFINED AS A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS. AN EXPRESSWAY IS DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
3. AN ARROW PANEL SHALL BE LOCATED ON THE SHOULDER AT THE BEGINNING OF THE MERGING TAPER OR LOCATED IN THE CLOSED LANE WHEN THE SHOULDER IS NARROW.
4. ALL VEHICLES, EQUIPMENT, WORKERS, AND THEIR ACTIVITIES SHALL BE RESTRICTED TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
5. DRUMS SHALL BE USED IN LIEU OF CONES IF CLOSURE EXTENDS INTO NIGHTTIME HOURS. GRABBER CONES MAY BE USED IN LIEU OF DRUMS IF THE USE OF DRUMS WOULD RESULT IN LANES THAT ARE TOO NARROW OR AN UNACCEPTABLE SITUATION BASED ON ENGINEERING JUDGMENT.
6. BUFFER SPACE (OPTIONAL). REFER TO TABLE 6C-2 OF THE MUTCD FOR GUIDANCE ON BUFFER SPACE LENGTH.
7. IF DURATION OF LANE CLOSURE EXCEEDS THREE DAYS, TEMPORARY EDGE LINE SHALL BE REQUIRED AND SKIP LINES SHALL BE OBLITERATED BY APPROVED METHOD THRU LENGTH OF TAPER. ANY OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE OBLITERATED.
8. IF AN ARROW PANEL IS INSTALLED ON THE SHOULDER OR WITHIN THE CLEAR ZONE, A SHOULDER TAPER SHALL BE REQUIRED. WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, A SHOULDER TAPER SHALL BE REQUIRED. TAPER LENGTH SHALL BE 0.33 L. SPACING OF CHANNELIZING DEVICES THRU THE SHOULDER TAPER SHOULD BE 40'.
9. SPACING OF CHANNELIZING DEVICES THRU THE MERGING TAPER SHOULD BE 40'.
10. SPACING OF CHANNELIZING DEVICES THRU THE ACTIVITY AREA SHOULD BE 80'.
11. DOWNSTREAM TAPER SHALL HAVE A MINIMUM LENGTH OF 50' AND A MAXIMUM LENGTH OF 100'. SPACING OF CHANNELIZING DEVICES THRU THE DOWNSTREAM TAPER SHOULD BE 20'.

BID ITEM AND UNIT TO BID
 LANE CLOSURE EACH
 ARROW PANEL EACH
 REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

LEGEND

- ➡ ARROW PANEL
 F SIGN
 ● CHANNELIZING DEVICES
 CONES
 DRUMS

SIGNING AND SPACING TABLE

ROAD TYPE	A	B	C	D	L
EXPRESSWAY/ FREEWAY	1000'	500'	1100'	2600'	840'
SP. LT. \geq 45 MPH*	500'	500'	500'	1100'	680'
SP. LT. \leq 40 MPH*	250'	250'	500'	500'	320'

*NOTE: USE NORMAL POSTED SPEED LIMIT

DRAWING NOT TO SCALE
 USE WITH CUR. STD. DWG.
 TTC-160

KENTUCKY
 DEPARTMENT OF HIGHWAYS

LANE CLOSURE
 MULTI-LANE HIGHWAY
 CASE I

STANDARD DRAWING NO. TTC-115-04

SUBMITTED *B. Allen* 02-26-20
 DIRECTOR OF TRANSPORTATION OPERATIONS DATE
 APPROVED *[Signature]* 02-26-20
 STATE ENGINEER DATE



NEWPORT WMR – PHASE 4

ADDENDUM NO. 1
Newport Water Main Replacement – Phase 4 of WX21037311
Newport, Campbell County, Kentucky
NORTHERN KENTUCKY WATER DISTRICT

Cardinal Engineering

February 20, 2025

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents. All addendums will be issued through the Owner's QUESTCDN electronic bidding site. You must download the bid documents to be a plan holder and receive any addenda. It is the sole responsibility of the Bidder to review all addendums twenty-four (24) hours prior to bid.

I. CHANGES TO SPECIFICATIONS & TO THE BID FORM

Specification Section 00300 "Bid Disclosure Form" & QuestCDN Bid Worksheet

Remove item 10.10 "Private Side Lead Service Line Replacement" for the following addresses:

- 2114 Joyce Avenue
- 2116 Joyce Avenue
- 2119 Joyce Avenue
- 2209 Joyce Avenue
- 2231 Joyce Avenue
- 2239 Joyce Avenue
- 229 Poplar Street
- 2311 Joyce Avenue
- 2313 Joyce Avenue
- 2327 Joyce Avenue
- 11 21st Street
- 17 21st Street
- 6 21st Street
- 41 Amelia Street
- 33 Amelia Street

Add item 10.10 "Private Side Lead Service Line Replacement" for the following addresses:

- 14 Truesdale Street (New Item Code C8)
- 16 Truesdale Street (New Item Code C9)
- 20 Truesdale Street (New Item Code C10)
- 53 Amelia Street (New Item Code D18)
- 39 Amelia Street (New Item Code D21)
- 31 Amelia Street (New Item Code D24)
- 38 Amelia Street (New Item Code D26)
- 36 Amelia Street (New Item Code D27)
- 26 Amelia Street (New Item Code D29)
- 16 Amelia Street (New Item Code D32)
- 2 Amelia Street (New Item Code D34)
- 35 Grandview Avenue (New Item Code E14)
- 46 Grandview Avenue (New Item Code E15)
- 14 Grandview Avenue (New Item Code E17)

The QuestCDN Bid Worksheet has been modified to reflect these changes. New plan sheets will not be issued. The addresses listed for item 10.10 "Private Lead Service Line Replacement" in the updated QuestCDN Bid Worksheet supersedes what is shown on the plans.

Specification Section 00810 “Supplemental General Conditions for Drinking Water State Revolving Fund” Page 29 of 49, Attachment Number 12

Remove the first bulleted item in its entirety and replace it with the following:

“Bid guarantee equivalent to 10 percent of the bid price. The bid guarantee shall consist of a firm commitment such as a certified check or bid bond submitted with the bid;”

Specification Section 01025 “Measurement & Payment”, Page 7 of 13

Add the following immediately after the description for item “10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT”:

“Notwithstanding Section 00800 Supplementary Conditions, Sub-Section SC-11.9 “Unit Price Work”, Contractor shall not be entitled to change orders for estimated quantities differing by more than 25% due to discovery that a line is not lead and does not need replaced, or due to inability to obtain the home owner consent.”

Specification Section 01025 “Measurement & Payment”, Page 9 of 13

Add the following immediately after the description for item “10.10B PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT – Pressure Regulator & Expansion Tank Additive”:

“Notwithstanding Section 00800 Supplementary Conditions, Sub-Section SC-11.9 “Unit Price Work”, Contractor shall not be entitled to change orders for estimated quantities differing by more than 25% due to discovery that a line is not lead and does not need replaced, due to inability to obtain the home owner consent, or due to the Plumbing Code/the Plumbing Inspector not requiring a new regulator and expansion tank as part of the service line replacement.”

Clarification / Q&A

- Q. What is the engineer’s estimate?
A. \$2,827,731.11

ADDENDUM NO. 2
Newport Water Main Replacement – Phase 4 of WX21037311
Newport, Campbell County, Kentucky
NORTHERN KENTUCKY WATER DISTRICT

Cardinal Engineering

February 28, 2025

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents. All addendums will be issued through the Owner's QUESTCDN electronic bidding site. You must download the bid documents to be a plan holder and receive any addenda. It is the sole responsibility of the Bidder to review all addendums twenty-four (24) hours prior to bid.

I. CHANGES TO THE PLANS

Sheet C-514

The pavement restoration at the intersection of Grandview Avenue and Central Avenue has been changed from milling and paving to full concrete panel replacement. Please refer to the attached exhibit for the concrete panel restoration limits.

II. CHANGES TO SPECIFICATIONS

Section 00300, BID DISCLOSURE FORM

The QuestCDN Bid Worksheet has been modified to include quantity for full concrete panel pavement restoration (Line Item E24). It also reduces the amount of concrete trench restoration (Line Item E23) and milling & paving (Line Item E22). The online QuestCDN Bid Worksheet supersedes the Reference Copy of the BID Worksheet in section 00300.

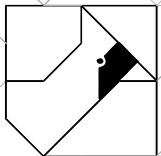
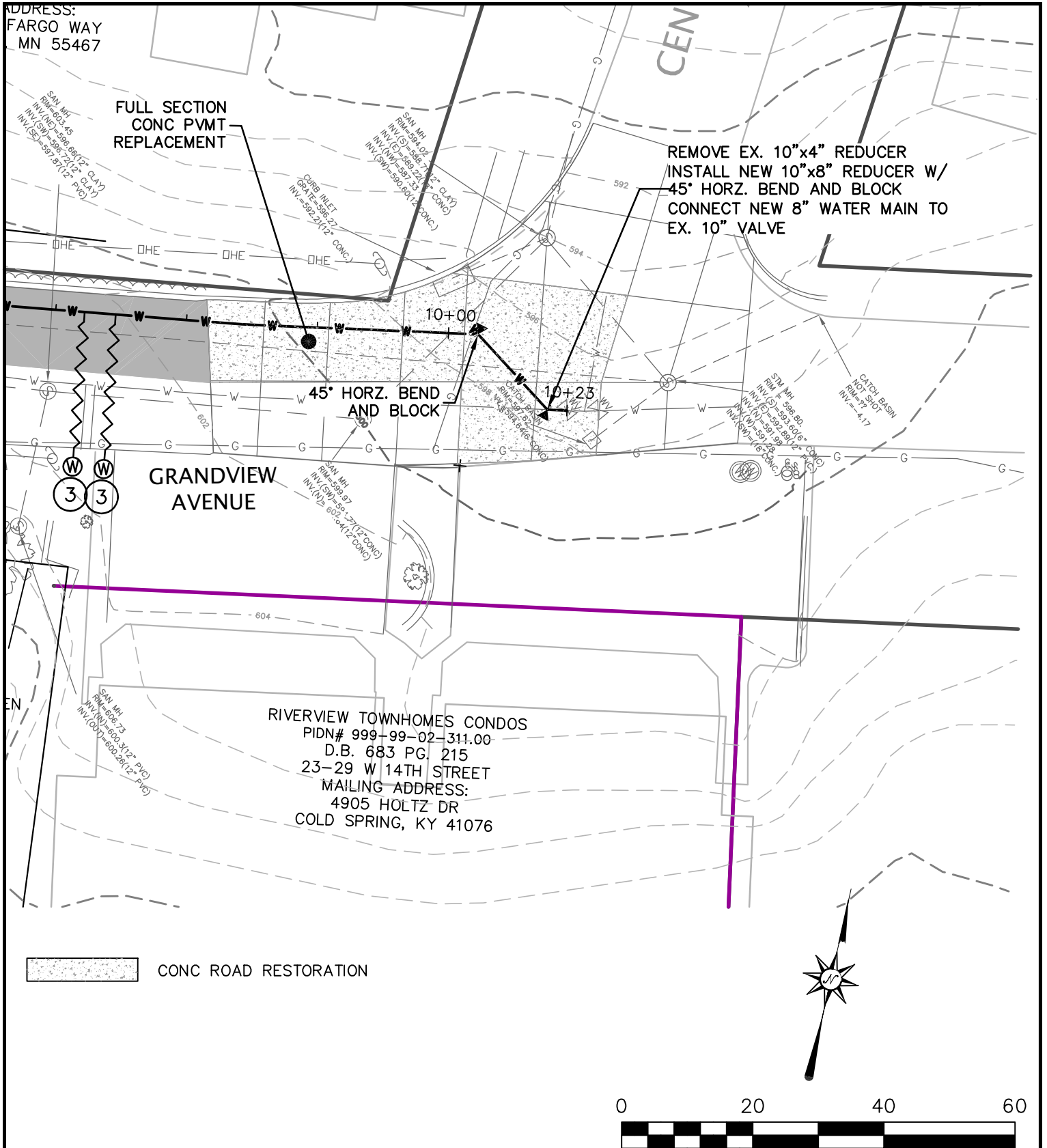
Section 01025, MEASUREMENT AND PAYMENT, Page 12 of 13
Item 12.05 ASPHALTIC CONCRETE MILLING AND PAVING

Add the following to the description, "This pay item includes the replacement of any pavement markings to match existing."

III. CLARIFICATION

- Q. Confirming the participation requirement to be 5% WBE and 3% MBE on this project. There are two different shading or hatching on Joyce Avenue for the mill and pave at Riddle and Florence. Is something different required at these intersections? The water main goes through several large blocks of concrete pavement on Grandview at Central with no pay item. Are we to restore with trench restoration or full block restoration in this area? If full block restoration, can a pay item be added for this work.
- A. Percentage is correct for WBE and MBE. 1.) Joyce Avenue – The restoration is the same for all of the street including the intersections at Riddle and Florence. The shading on the plan was not quite the same. 2.) Grandview and Central – The engineer is going to prepare an addendum to include concrete restoration at this intersection.

ADDRESS:
FARGO WAY
MN 55467



CARDINAL
ENGINEERING
LAND SURVEYING

ADDENDUM 1 - SHEET C-514

ONE MOOCK ROAD
WILDER, KENTUCKY
41071 (859) 581-9600

PROJECT MANAGER:	KGH
DRAWN BY:	KGH
DATE:	02-21-25
SCALE:	1" = 20'
FIGURE:	C-514A



EXHIBIT B

APPROVALS AND PERMITS

(Franchises, Plan Review and Permit Status, Easements, Right-of-Ways, Construction Start and In-Service Date, Plant Retirements)



NEWPORT WMR – PHASE 3



Franchises required – None

Plan Review and Permit Status - The District has reviewed and approved the Plans and Specifications prepared by Bayer Becker, titled “Newport Water Main Replacement Phase 3 of WX21037311” digitally sealed by a P.E. and dated June 2024 and January 2025 respectively.

See attached permit letters for:

- Kentucky Division of Water on November 8, 2024 AI #: 2485, APE20240009 / FGL20230009
- City of Newport on October 15, 2024

Easements and Right-of-Way Status – All utility owned improvements occur within public right-of-way. Pending all approvals, Private Lead Service Line Replacement Agreements will be made with all participating homeowners which will grant right-of - entry / temporary access to replace the private lead service line. Upon completion of the project, the homeowner accepts ownership and maintenance of the new private service line. No easements are required since the District will not acquire real property interest in conducting the private service line work.

Estimated Start date of construction – July 2025

Proposed date in service – June 2027

Plant retirements – There are no retirements as a result of this project.



Andy Beshear
GOVERNOR

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

300 Sower Boulevard
Frankfort, Kentucky 40601
Phone: (502) 564-2150
Fax: 502-564-4245

Rebecca W. Goodman
SECRETARY

Anthony R. Hatton
COMMISSIONER

November 8, 2024

Stacey Kampsen
Northern KY Water District
2835 Crescent Springs Rd
Erlanger, KY 41018

RE: Newport Water Main Replacement Phase 3
F23-007S
Campbell County, KY
Northern KY Water District
AI #: 2485, APE20240009/FGL20230009

Dear Ms. Kampsen:

The Kentucky Division of Water (DOW) has reviewed for completeness and adequacy the construction plans and specifications submitted for the above referenced contract. The plans consist of 7,950 linear feet of 8-inch PVC water line, 44 linear feet of 8-inch ductile iron water line, and 30 linear feet of 6-inch DI water line. The DOW now approves these plans and specifications with respect to sanitary features of design in accordance with the requirements contained in the attached construction permit and the following stipulation:

- Negotiations that occur after competitive sealed bidding when all bids exceed available funds shall follow KRS 45A.090 and be with the three most responsive and responsible bidders.

The approval conditions and a list of eligible/ineligible items are enclosed. Please note that ineligible items cannot be funded using State Revolving Fund (SRF) monies, and must be paid by other funding sources.

We are enclosing one (1) set of approved plans and specifications. An identical set should be made available at the project site at all times. If modifications are made to these plans and specifications before bidding, two (2) complete sets of as-bid plans and specifications must be submitted to the DOW for approval. A second DOW construction approval must be issued by separate correspondence before proceeding with advertising for bids. Any red line changes that were made by DOW personnel on the approved plans shall be incorporated into the bid set plans unless an alternative is approved.

You may now advertise for bids on the construction of this project. In addition to other notifications, this project must be advertised in the newspaper of the largest daily circulation in the project area.

You are cautioned not to advertise unless you have a proper wage decision. The Federal Davis-Bacon wage rates are applicable for this project. Please contact all other funding sources for their requirements pertaining to federal wage rates.

You are reminded that the construction contracts are subject to the equal employment opportunity requirements contained in Executive Order 11246. Equal employment opportunity affirmative action by the prime contractors and all subcontractors is mandated throughout the duration of the contract. Documentation of efforts to comply with Executive Order 11246, Equal Employment Opportunity is required to be kept by the borrower.

Review the attached Project Review and Cost Summary form for details of the information to be collected and retained in your files or to be submitted to DOW for review and approval. This form must be completed, signed by the recipient, and with the necessary information be then forwarded to the DOW. This signature will certify that all the information to be retained by the recipient has been secured and is available for review by the Division at the pre-construction conference. The required information must be approved by the DOW before executing any contracts.

Along with the Project Review and Cost Summary form, the following items must be submitted to the DOW for review and approval before executing any contracts:

- The bid advertisement
- Revised Project Budget
- Certified bid tabulation
- Documentation of compliance with DBE Good Faith Effort in accordance with 40 CFR 33.301

These items will be reviewed as a part of the Authority to Award process. The DOW will authorize you to award the contracts once these documents are approved.

After the Notice to Proceed is signed, the DOW will need a copy of the executed contract documents, including plans and specifications.

Changes orders will require approval from the DOW before payment can be authorized from the State Revolving Fund. Submission of plans and specifications may be required for change order work.

Upon completion of the project, as-built drawings shall be provided to the DOW. As-builts shall be stamped, signed and dated by a professional engineer. A written certification stating that the project was constructed according to the approved plans shall be provided to the DOW by a professional engineer.

The construction permit included in this letter has been issued under the provisions of KRS Chapter 224 and the regulations promulgated pursuant thereto. Issuance of this approval does not relieve

Newport Water Main Replacement Ph 3
F23-007S
Northern KY Water District
AI #: 2485, APE20240009/FGL20230009
November 8, 2024
Page 3 of 3

the applicant from the responsibility of obtaining any other approvals, permits or licenses required by this Cabinet and other state, federal and local agencies.

You are cautioned that the advertisement and award of this contract will be subject to the laws and regulations that govern the State Revolving Fund (SRF) and to the conditions of your loan agreement. If we can be of further assistance, please call Brett Thompson, Project Engineer, at (502) 782-4143.

Sincerely,



Terry Humphries, P.E.
Supervisor, Engineering Section
Water Infrastructure Branch
Division of Water

TH:BT
Enclosures

Eligible List, Ineligible List, Approval Conditions
Project Review and Cost Summary Form
1 set plans and specification

C: Quest Engineers Inc
Kentucky Infrastructure Authority
Cabinet for Economic Development
Campbell County Health Department
Division of Plumbing

F23-007S
Northern KY Water District

SRF ELIGIBLE ITEMS:

No ineligible items identified.

SRF INELIGIBLE ITEMS:

No Ineligible items identified.

APPROVAL CONDITIONS:

1. Complete and return the Project Review and Cost Summary Form.

PROJECT REVIEW AND COST SUMMARY

This questionnaire/checklist is furnished as an administrative aid and is required for use in supplying information and documents, reporting minor changes, and project status. The information and documents should be submitted to DOW as soon as possible after bid opening.

DRINKING WATER SRF ☐

CLEAN WATER SRF ☐

SECTION 1.

1. Project Name Project Number
-
2. Changes: Have there been any changes in the project since DOW's approval of the plans and specifications?
- ☐ Yes ☐ No Construction Drawings. If yes, submit revised drawings and addenda. **See Note***
- ☐ Yes ☐ No Specifications. If yes, submit addenda. **See Note***
- ☐ Yes ☐ No Site Changes. If so, new Clear Site Certificates are required prior to start of construction.
- ☐ Yes ☐ No Authorized Representative (Mayor, City Manager, etc.). If so, provide name and title.

***Note:** Prior approval is required for changes in design, scope, type of treatment, size, capacity, time to complete the project, etc. Changes, which result in increase in the amount of a contract, must be procured in accordance with state and federal requirements, as applicable.

SECTION 2.

Date Bids Opened: _____ Date Bids Expire: _____

1. The following items should be submitted to DOW after bid opening:
- a) Executed Project Review & Cost Summary Form (this form).
 - b) Revised (As-bid) Budget (form attached).
 - c) Original bid advertisement or copy of advertisement with affidavit of publication.
 - d) Certified Bid Tabulations with engineer's seal.
 - e) Davis-Bacon ATA Certification form (with Project Wage Rate Sheet HUD-4720 form).
 - g) Clear Site Certificates.
 - h) DBE Documentation (See Attachment No. 11 of the Supplemental General Conditions (SGC)):
 - (1) Disadvantaged Business Enterprise Participation Policy form from the successful low bidder with DBE certifications and executed subcontracts with DBEs or letters of intent signed by both parties; and documentation on the level of effort taken

to obtain DBEs including copies of correspondence with DBE contractors, requesting quotes and copies of any advertisements soliciting DBE contractors, copies of returned envelopes and certified mail receipts, telephone log, etc.

(2) Bidder's List Form from recipient and successful bidder.

2. The following items must be submitted to DOW at the Pre-construction Meeting:

- a) Executed Contract Documents (once contract is signed).
- b) Notice of Award, Notice to Proceed, Bid Bond, Payment Bond, and Performance Bond (generally included in executed contract).
- c) Technical Specification (generally included in executed contract).
- d) Contractor's Certification Regarding Lobbying (See Attachment No. 11 in the SGC).
- e) Contractor's Debarred Firm Certification (See Attachment No. 10 in the SGC).

3. A copy of the items identified in Section 2.1 and Section 2.2, above, and the following must be retained by the owner. This documentation is subject for review, by DOW, at the time of the pre-construction conference.

- a) Name and qualifications of the proposed resident inspector(s).
- b) Proposal of the successful bidder(s).
- c) EEO documentation required by Executive Order 11246 as amended. Items 1 through 11 (See Attachment No. 7 in the SGC), is required for all contracts over \$10,000 except supplier contracts. Supplier contracts require:
 - (1) Name, address, and telephone number.
 - (2) Materials to be supplied and dollar value.For contracts below \$10,000, the same information required for supplier contracts must be submitted.
- d) Engineer's letter to the loan recipient recommending award of the contract. Letter must include a description of work, dollar amount, and name of the low bidder. If award is recommended to be made to other than the low bidder, a justification indicating why the low bidder is not responsive or responsible.
- e) Contractor project construction schedule and payment schedule.
- f) Applicable wage rate determination letter.
- g) Tentative Award Resolution.

4. **Comments:** _____

I hereby certify that all documentation outlined in Section 2.1, 2.2 and 2.3 will be retained in our project files and all documentation outlined in Section 2.1 has been submitted to DOW and all documentation outlined in Section 2.2 will be submitted to DOW during the Pre-construction meeting.

Signature of Authorized Representative

Date

Print Name and Title

SRF Project Cost Summary

Project Title: _____

WRIS#: _____

Project Budget: **Estimated** enter date

As Bid enter date

Revised enter date

Cost Classification	SRF KIA Loan	Funding Source 1	Funding Source 2	Funding Source 3	Funding Source 4	Funding Source 5	Local Funds	Unfunded Costs	Total
1 Administrative Expenses									
2 Legal Expenses									
3 Land, Appraisals, Easements									
4 Relocation Expenses & Payments									
5 Planning									
6 Engineering Fees – Design									
7 Engineering Fees – Construction									
8 Engineering Fees – Inspection									
9 Engineering Fees – Other									
10 Construction									
11 Equipment									
12 Miscellaneous									
13 Contingencies									
Total									

Funding Sources	Amount	Date Committed
1		
2		
3		
4		
5		
Total		

Local Funding Sources	Amount	Date Committed
1		
2		
3		
Total		

Total Funding \$ _____

Cost Categories	Funding Source	Total Cost
Treatment (DW)		
Transmission and Distribution (DW)		
Source (DW)		
Storage (DW)		
WWTP Secondary Portion (CW)		
WWTP Advanced Portion (CW)		
Inflow and Infiltration Correction (CW)		
Major Sewer Rehabilitation (CW)		
Collector Sewers (CW)		
Interceptor Sewers including Pump Station (CW)		
Combined Sewer Overflow Correction (CW)		
Purchase of Systems (DW and CW)		
Restructuring (DW and CW)		
Land Acquisition (DW and CW)		
Total Costs		

Distribution-Water Line Extension

Northern KY Water District

Facility Requirements

Activity ID No.:APE20240009

Page 1 of 5

PORT0000000311 (Newport Water Main Replacement Ph 3) 7950 linear feet of 8 inch PVC water line, 44 linear feet of 8 inch ductile iron water line, and 30 linear feet of 6 inch ductile iron water line:

Narrative Requirements:

Condition No.	Condition
T-1	Construction of this project shall not result in the water system's inability to supply consistent water service in compliance with 401 KAR 8:010 through 8:600. [401 KAR 8:100 Section 5]
T-2	The public water system shall not implement a change to the approved plans without the prior written approval of the cabinet. [401 KAR 8:100 Section 4(3)]
T-3	A proposed change to the approved plans affecting sanitary features of design shall be submitted to the cabinet for approval in accordance with Section 2 of this administrative regulation. [401 KAR 8:100 Section 4(2)]
T-4	During construction, a set of approved plans and specifications shall be available at the job site. Construction shall be performed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 3(1)]
T-5	Unless construction begins within two (2) years from the date of approval of the final plans and specifications, the approval shall expire. [401 KAR 8:100 Section 3(3)]
T-6	Upon completion of construction, a professional engineer shall certify in writing that the project has been completed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 4(1)]
T-7	The system shall be designed to maintain a minimum pressure of 20 psi at ground level at all points in the distribution system under all conditions of flow. [Recommended Standards for Water Works 8.2.1, Drinking Water General Design Criteria IV.1.a]
T-8	Water lines should be hydraulically capable of a flow velocity of 2.5 ft/s while maintaining a pressure of at least 20 psi. [Drinking Water General Design Criteria IV.1.b]
T-9	The normal working pressure in the distribution system at the service connection shall not be less than 30 psi under peak demand flow conditions. Peak demand is defined as the maximum customer water usage rate, expressed in gallons per minute (gpm), in the pressure zone of interest during a 24 hour (diurnal) time period. [Drinking Water General Design Criteria IV.1.d]
T-10	When static pressure exceeds 150 psi, pressure reducing devices shall be provided on mains or as part of the meter setting on individual service lines in the distribution system. [Drinking Water General Design Criteria IV.1.c]
T-11	The minimum size of water main in the distribution system where fire protection is not to be provided should be a minimum of three (3) inch diameter. Any departure from minimum requirements shall be justified by hydraulic analysis and future water use, and can be considered only in special circumstances. [Recommended Standards for Water Works 8.2.2, Drinking Water General Design Criteria IV.2.b]

Distribution-Water Line Extension

Northern KY Water District

Facility Requirements

Activity ID No.:APE20240009

Page 2 of 5

PORT0000000311 (Newport Water Main Replacement Ph 3) 7950 linear feet of 8 inch PVC water line, 44 linear feet of 8 inch ductile iron water line, and 30 linear feet of 6 inch ductile iron water line:

Narrative Requirements:

Condition No.	Condition
T-12	Water mains not designed to carry fire-flows shall not have fire hydrants connected to them. [Recommended Standards for Water Works 8.4.1.b]
T-13	Flushing devices should be sized to provide flows which will give a velocity of at least 2.5 feet per second in the water main being flushed. [Recommended Standards for Water Works 8.2.4.b, Recommended Standards for Water Works 8.4.1.b]
T-14	No flushing device shall be directly connected to any sewer. [Recommended Standards for Water Works 8.2.4.b, Recommended Standards for Water Works 8.4.1.b]
T-15	Pipe shall be constructed to a depth providing a minimum cover of 30 inches to top of pipe. [Drinking Water General Design Criteria IV.3.a]
T-16	Water mains shall be covered with sufficient earth or other insulation to prevent freezing. [Recommended Standards for Water Works 8.7]
T-17	A continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. Stones found in the trench shall be removed for a depth of at least six inches below the bottom of the pipe. [Recommended Standards for Water Works 8.7]
T-18	Water line installation shall incorporate the provisions of the AWWA standards and/or manufacturer's recommended installation procedures. [Recommended Standards for Water Works 8.7]
T-19	All materials used for the rehabilitation of water mains shall meet ANSI/NSF standards. [Recommended Standards for Water Works 8.1]
T-20	Packing and jointing materials used in the joints of pipe shall meet the standards of AWWA and the reviewing authority. [Recommended Standards for Water Works 8.1]
T-21	All tees, bends, plugs and hydrants shall be provided with reaction blocking, tie rods or joints designed to prevent movement. [Recommended Standards for Water Works 8.7]
T-22	All materials including pipe, fittings, valves and fire hydrants shall conform to the latest standards issued by the ASTM, AWWA and ANSI/NSF, where such standards exist, and be acceptable to the Division of Water. [Recommended Standards for Water Works 8.1]
T-23	Water mains which have been used previously for conveying potable water may be reused provided they meet the above standards and have been restored practically to their original condition. [Recommended Standards for Water Works 8.1]

Distribution-Water Line Extension

Northern KY Water District

Facility Requirements

Activity ID No.:APE20240009

Page 3 of 5

PORT0000000311 (Newport Water Main Replacement Ph 3) 7950 linear feet of 8 inch PVC water line, 44 linear feet of 8 inch ductile iron water line, and 30 linear feet of 6 inch ductile iron water line:

Narrative Requirements:

Condition No.	Condition
T-24	Manufacturer approved transition joints shall be used between dissimilar piping materials. [Recommended Standards for Water Works 8.1]
T-25	The minimum size of water main which provides for fire protection and serving fire hydrants shall be six-inch diameter. [Recommended Standards for Water Works 8.2, Drinking Water General Design Criteria IV.2.a]
T-26	Pipes and pipe fittings containing more than 8% lead shall not be used. All products shall comply with ANSI/NSF standards. [Recommended Standards for Water Works 8.1]
T-27	Gaskets containing lead shall not be used. Repairs to lead-joint pipe shall be made using alternative methods. [Recommended Standards for Water Works 8.1]
T-28	Pipe materials shall be selected to protect against both internal and external pipe corrosion. [Recommended Standards for Water Works 8.1]
T-29	Dead end mains shall be equipped with a means to provide adequate flushing. [Recommended Standards for Water Works 8.2]
T-30	The hydrant lead shall be a minimum of six inches in diameter. Auxiliary valves shall be installed on all hydrant leads. [Recommended Standards for Water Works 8.4.3]
T-31	A sufficient number of valves shall be provided on water mains to minimize inconvenience and sanitary hazards during repairs. [Recommended Standards for Water Works 8.3]
T-32	Wherever possible, chambers, pits or manholes containing valves, blow-offs, meters, or other such appurtenances to a distribution system, shall not be located in areas subject to flooding or in areas of high groundwater. Such chambers or pits should drain to the ground surface, or to absorption pits underground. The chambers, pits and manholes shall not connect directly to any storm drain or sanitary sewer. Blow-offs shall not connect directly to any storm drain or sanitary sewer. [Recommended Standards for Water Works 8.6]
T-33	At high points in water mains where air can accumulate provisions shall be made to remove the air by means of air relief valves. [Recommended Standards for Water Works 8.5.1]
T-34	Automatic air relief valves shall not be used in situations where flooding of the manhole or chamber may occur. [Recommended Standards for Water Works 8.5.1]

Distribution-Water Line Extension

Northern KY Water District

Facility Requirements

Activity ID No.:APE20240009

Page 4 of 5

PORT0000000311 (Newport Water Main Replacement Ph 3) 7950 linear feet of 8 inch PVC water line, 44 linear feet of 8 inch ductile iron water line, and 30 linear feet of 6 inch ductile iron water line:

Narrative Requirements:

Condition No.	Condition
T-35	The open end of an air relief pipe from automatic valves shall be extended to at least one foot above grade and provided with a screened, downward-facing elbow. [Recommended Standards for Water Works 8.5.2.c]
T-36	Discharge piping from air relief valves shall not connect directly to any storm drain, storm sewer, or sanitary sewer. [Recommended Standards for Water Works 8.5.2.d]
T-37	Water pipe shall be constructed with a lateral separation of 10 feet or more from any gravity sanitary or combined sewer measured edge to edge where practical. If not practical a variance may be requested to allow the water pipe to be installed closer to the gravity sanitary or combined sewer provided the water pipe is laid in a separate trench or undisturbed shelf located on one side of the sewer with the bottom of the pipe at least 18 inches above the top of the gravity sanitary or combined sewer pipe. [Drinking Water General Design Criteria IV.3.b]
T-38	Water lines crossing sanitary, combined or storm sewers shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sanitary, combined or storm sewer with preference to the water main located above the sanitary, combined or storm sewer. [Drinking Water General Design Criteria IV.3.c]
T-39	At crossings, one full length of water pipe shall be located so both joints will be as far from the sewer as possible. [Recommended Standards for Water Works 8.8.3.b]
T-40	There shall be no connection between the distribution system and any pipes, pumps, hydrants, or tanks whereby unsafe water or other contaminating materials may be discharged or drawn into the system. [Recommended Standards for Water Works 8.10.1]
T-41	Water utilities shall have a cross connection program conforming to 401 KAR 8. [Recommended Standards for Water Works 8.10.1]
T-42	Installed pipe shall be pressure tested and leakage tested in accordance with the appropriate AWWA Standards. [Recommended Standards for Water Works 8.7.6]
T-43	New, cleaned and repaired water mains shall be disinfected in accordance with AWWA Standard C651. The specifications shall include detailed procedures for the adequate flushing, disinfection, and microbiological testing of all water mains. In an emergency or unusual situation, the disinfection procedure shall be discussed with the Division of Water. [Recommended Standards for Water Works 8.7.7]
T-44	A minimum cover of five feet shall be provided over pipe crossing underwater. [Recommended Standards for Water Works 8.9.2]

Distribution-Water Line Extension

Northern KY Water District

Facility Requirements

Activity ID No.:APE20240009

Page 5 of 5

PORT0000000311 (Newport Water Main Replacement Ph 3) 7950 linear feet of 8 inch PVC water line, 44 linear feet of 8 inch ductile iron water line, and 30 linear feet of 6 inch ductile iron water line:

Narrative Requirements:

Condition No.	Condition
T-45	Valves shall be provided at both ends of water crossings so that the section can be isolated for testing or repair; the valves shall be easily accessible, and not subject to flooding for pipes crossing underwater. [Recommended Standards for Water Works 8.9.2.b]
T-46	Permanent taps or other provisions to allow insertion of a small meter to determine leakage and obtain water samples on each side of the valve closest to the supply source for pipes crossing. [Recommended Standards for Water Works 8.9.2.c]



City of Newport

998 Monmouth Street
Newport, Kentucky 41071
Ray Ebert, Public Works Director

Phone: (859) 250-3000
Fax: (859) 292-3663

Northern Kentucky Water District
Attn: Steve Broering
sbroering@nkywater.org

October 15, 2024

Subject: Water Main Replacement Phases 1-4

Dear Mr. Broering,

The City of Newport Kentucky is hereby giving you approval to move along with your Phases 1-4 Water Main Replacement Project.

Sincerely,

Ray Ebert
Public Works Director

WWW.NEWPORTKY.GOV

MAKE IT YOUR HOME TOO



NEWPORT WMR – PHASE 4



Franchises required – None

Plan Review and Permit Status - The District has reviewed and approved the Plans prepared by Cardinal Engineering, titled "Newport 2022 Water Main Replacement | Phase 4 of WX21037311" digitally sealed by a P.E. and dated January 9, 2025 along with the Specifications prepared by Cardinal Engineering, titled "Newport Water Main Replacement Phase 4 of WX21037311" digitally sealed by a P.E. and dated January 2025.

See attached permit letters for:

- Kentucky Division of Water on November 8, 2024 AI #: 2485, APE20240010 / FGL20230010
- City of Newport on October 15, 2024

Easements and Right-of-Way Status – All utility owned improvements occur within public right-of-way except for 82' of water main on Truesdale Street which requires 3 permanent easements. These easements have been acquired and recorded with the Campbell County Clerk's Office. Pending all approvals, Private Lead Service Line Replacement Agreements will be made with all participating homeowners which will grant right-of-entry / temporary access to replace the private lead service line. Upon completion of the project, the homeowner accepts ownership and maintenance of the new private service line. No easements are required since the District will not acquire real property interest in conducting the private service line work.

Estimated Start date of construction – July 2025

Proposed date in service – November 2026

Plant retirements – There are no retirements as a result of this project.



Andy Beshear
GOVERNOR

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

300 Sower Boulevard
Frankfort, Kentucky 40601
Phone: (502) 564-2150
Fax: 502-564-4245

Rebecca W. Goodman
SECRETARY

Anthony R. Hatton
COMMISSIONER

November 8, 2024

Stacey Kampsen
Northern KY Water District
2835 Crescent Springs Rd
Erlanger, KY 41018-

RE: Newport Water Main Replacement Phase 4
F23-007S
Campbell County, KY
Northern KY Water District
AI #: 2485, APE20240010/FGL20230010

Dear Ms. Kampsen:

The Kentucky Division of Water (DOW) has reviewed for completeness and adequacy the construction plans and specifications submitted for the above referenced contract(s). The plans consist of the construction of approximately 1,130 linear feet of 8-inch PVC water line, 3,950 linear feet of 8-inch ductile iron water line, 1,150 linear feet of 6-inch ductile iron water line, and 35 linear feet of 12-inch ductile iron water line. The DOW now approves these plans and specifications with respect to sanitary features of design in accordance with the requirements contained in the attached construction permit and the following stipulation:

- Negotiations that occur after competitive sealed bidding when all bids exceed available funds shall follow KRS 45A.090 and be with the three most responsive and responsible bidders.

The approval conditions and a list of eligible/ineligible items are enclosed. Please note that ineligible items cannot be funded using State Revolving Fund (SRF) monies and must be paid by other funding sources.

We are enclosing one (1) set of approved plans and specifications. An identical set should be made available at the project site at all times. If modifications are made to these plans and specifications before bidding, two (2) complete sets of as-bid plans and specifications must be submitted to the DOW for approval. A second DOW construction approval must be issued by separate correspondence before proceeding with advertising for bids. Any red line changes that were made by DOW personnel on the approved plans shall be incorporated into the bid set plans unless an alternative is approved.

You may now advertise for bids on the construction of this project. In addition to other notifications, this project must be advertised in the newspaper of the largest daily circulation in the project area.

You are cautioned not to advertise unless you have a proper wage decision. The Federal Davis-Bacon wage rates are applicable for this project. Please contact all other funding sources for their requirements pertaining to federal wage rates.

You are reminded that the construction contracts are subject to the equal employment opportunity requirements contained in Executive Order 11246. Equal employment opportunity affirmative action by the prime contractors and all subcontractors is mandated throughout the duration of the contract. Documentation of efforts to comply with Executive Order 11246, Equal Employment Opportunity is required to be kept by the borrower.

Review the attached Project Review and Cost Summary form for details of the information to be collected and retained in your files or to be submitted to DOW for review and approval. This form must be completed, signed by the recipient, and with the necessary information be then forwarded to the DOW. This signature will certify that all the information to be retained by the recipient has been secured and is available for review by the Division at the pre-construction conference. The required information must be approved by the DOW before executing any contracts.

Along with the Project Review and Cost Summary form, the following items must be submitted to the DOW for review and approval before executing any contracts:

- The bid advertisement
- Revised Project Budget
- Certified bid tabulation
- Documentation of compliance with DBE Good Faith Effort in accordance with 40 CFR 33.301

These items will be reviewed as a part of the Authority to Award process. The DOW will authorize you to award the contracts once these documents are approved.

After the Notice to Proceed is signed, the DOW will need a copy of the executed contract documents, including plans and specifications.

Changes orders will require approval from the DOW before payment can be authorized from the State Revolving Fund. Submission of plans and specifications may be required for change order work.

Upon completion of the project, as-built drawings shall be provided to the DOW. As-builts shall be stamped, signed and dated by a professional engineer. A written certification stating that the project was constructed according to the approved plans shall be provided to the DOW by a professional engineer.

The construction permit included in this letter has been issued under the provisions of KRS Chapter 224 and the regulations promulgated pursuant thereto. Issuance of this approval does not relieve

Newport Water Main Replacement Ph 4
F23-007S
Northern KY Water District
AI #: 2485, APE20240010/FGL20230010
November 8, 2024
Page 3 of 3

the applicant from the responsibility of obtaining any other approvals, permits or licenses required by this Cabinet and other state, federal and local agencies.

You are cautioned that the advertisement and award of this contract will be subject to the laws and regulations that govern the State Revolving Fund (SRF) and to the conditions of your loan agreement. If we can be of further assistance, please call Brett Thompson, Project Engineer, at (502) 782-4143.

Sincerely,



Terry Humphries, P.E.
Supervisor, Engineering Section
Water Infrastructure Branch
Division of Water

TH:BT
Enclosures

Eligible List, Ineligible List, Approval Conditions
Project Review and Cost Summary Form
1 set plans and specification

C: Quest Engineers Inc
Kentucky Infrastructure Authority
Cabinet for Economic Development
Campbell County Health Department
Division of Plumbing

F23-007S
Northern KY Water District

SRF ELIGIBLE ITEMS:

No Ineligible items identified.

SRF INELIGIBLE ITEMS:

No ineligible items identified.

APPROVAL CONDITIONS:

1. Provide Clear Site Certificates
2. Complete and return the Project Review and Cost Summary Form.

PROJECT REVIEW AND COST SUMMARY

This questionnaire/checklist is furnished as an administrative aid and is required for use in supplying information and documents, reporting minor changes, and project status. The information and documents should be submitted to DOW as soon as possible after bid opening.

DRINKING WATER SRF ☐

CLEAN WATER SRF ☐

SECTION 1.

1. Project Name Project Number
-
2. Changes: Have there been any changes in the project since DOW's approval of the plans and specifications?
- ☐ Yes ☐ No Construction Drawings. If yes, submit revised drawings and addenda. **See Note***
- ☐ Yes ☐ No Specifications. If yes, submit addenda. **See Note***
- ☐ Yes ☐ No Site Changes. If so, new Clear Site Certificates are required prior to start of construction.
- ☐ Yes ☐ No Authorized Representative (Mayor, City Manager, etc.). If so, provide name and title.

***Note:** Prior approval is required for changes in design, scope, type of treatment, size, capacity, time to complete the project, etc. Changes, which result in increase in the amount of a contract, must be procured in accordance with state and federal requirements, as applicable.

SECTION 2.

Date Bids Opened: _____ Date Bids Expire: _____

1. The following items should be submitted to DOW after bid opening:
- a) Executed Project Review & Cost Summary Form (this form).
 - b) Revised (As-bid) Budget (form attached).
 - c) Original bid advertisement or copy of advertisement with affidavit of publication.
 - d) Certified Bid Tabulations with engineer's seal.
 - e) Davis-Bacon ATA Certification form (with Project Wage Rate Sheet HUD-4720 form).
 - g) Clear Site Certificates.
 - h) DBE Documentation (See Attachment No. 11 of the Supplemental General Conditions (SGC)):
 - (1) Disadvantaged Business Enterprise Participation Policy form from the successful low bidder with DBE certifications and executed subcontracts with DBEs or letters of intent signed by both parties; and documentation on the level of effort taken

to obtain DBEs including copies of correspondence with DBE contractors, requesting quotes and copies of any advertisements soliciting DBE contractors, copies of returned envelopes and certified mail receipts, telephone log, etc.

(2) Bidder's List Form from recipient and successful bidder.

2. The following items must be submitted to DOW at the Pre-construction Meeting:

- a) Executed Contract Documents (once contract is signed).
- b) Notice of Award, Notice to Proceed, Bid Bond, Payment Bond, and Performance Bond (generally included in executed contract).
- c) Technical Specification (generally included in executed contract).
- d) Contractor's Certification Regarding Lobbying (See Attachment No. 11 in the SGC).
- e) Contractor's Debarred Firm Certification (See Attachment No. 10 in the SGC).

3. A copy of the items identified in Section 2.1 and Section 2.2, above, and the following must be retained by the owner. This documentation is subject for review, by DOW, at the time of the pre-construction conference.

- a) Name and qualifications of the proposed resident inspector(s).
- b) Proposal of the successful bidder(s).
- c) EEO documentation required by Executive Order 11246 as amended. Items 1 through 11 (See Attachment No. 7 in the SGC), is required for all contracts over \$10,000 except supplier contracts. Supplier contracts require:
 - (1) Name, address, and telephone number.
 - (2) Materials to be supplied and dollar value.For contracts below \$10,000, the same information required for supplier contracts must be submitted.
- d) Engineer's letter to the loan recipient recommending award of the contract. Letter must include a description of work, dollar amount, and name of the low bidder. If award is recommended to be made to other than the low bidder, a justification indicating why the low bidder is not responsive or responsible.
- e) Contractor project construction schedule and payment schedule.
- f) Applicable wage rate determination letter.
- g) Tentative Award Resolution.

4. **Comments:** _____

I hereby certify that all documentation outlined in Section 2.1, 2.2 and 2.3 will be retained in our project files and all documentation outlined in Section 2.1 has been submitted to DOW and all documentation outlined in Section 2.2 will be submitted to DOW during the Pre-construction meeting.

Signature of Authorized Representative

Date

Print Name and Title

SRF Project Cost Summary

Project Title: _____

WRIS#: _____

Project Budget: **Estimated**
enter date

As Bid

Revised
enter date

[illegible]

Funding Sources		Amount	Date Committed
1			
2			
3			
4			
5			
	Total		

Local Funding Sources		Amount	Date Committed
1			
2			
3			
	Total		

Total Funding \$

Cost Categories	Funding Source	Total Cost
Treatment (DW)		
Transmission and Distribution (DW)		
Source (DW)		
Storage (DW)		
WWTP Secondary Portion (CW)		
WWTP Advanced Portion (CW)		
Inflow and Infiltration Correction (CW)		
Major Sewer Rehabilitation (CW)		
Collector Sewers (CW)		
Interceptor Sewers including Pump Station (CW)		
Combined Sewer Overflow Correction (CW)		
Purchase of Systems (DW and CW)		
Restructuring (DW and CW)		
Land Acquisition (DW and CW)		
Total Costs		

Distribution-Water Line Extension

Northern KY Water District

Facility Requirements

Activity ID No.:APE20240010

Page 1 of 5

PORT0000000312 (Newport Water Main Replacement Ph 4) 1130 linear feet of 8 inch PVC water line, 3950 linear feet of 8 inch ductile iron water line, 1150 feet of 6 inch ductile iron water line, and 35 linear feet of 12 inch ductile iron water line:

Narrative Requirements:

Condition No.	Condition
T-1	Construction of this project shall not result in the water system's inability to supply consistent water service in compliance with 401 KAR 8:010 through 8:600. [401 KAR 8:100 Section 5]
T-2	The public water system shall not implement a change to the approved plans without the prior written approval of the cabinet. [401 KAR 8:100 Section 4(3)]
T-3	A proposed change to the approved plans affecting sanitary features of design shall be submitted to the cabinet for approval in accordance with Section 2 of this administrative regulation. [401 KAR 8:100 Section 4(2)]
T-4	During construction, a set of approved plans and specifications shall be available at the job site. Construction shall be performed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 3(1)]
T-5	Unless construction begins within two (2) years from the date of approval of the final plans and specifications, the approval shall expire. [401 KAR 8:100 Section 3(3)]
T-6	Upon completion of construction, a professional engineer shall certify in writing that the project has been completed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 4(1)]
T-7	The system shall be designed to maintain a minimum pressure of 20 psi at ground level at all points in the distribution system under all conditions of flow. [Recommended Standards for Water Works 8.2.1, Drinking Water General Design Criteria IV.1.a]
T-8	Water lines should be hydraulically capable of a flow velocity of 2.5 ft/s while maintaining a pressure of at least 20 psi. [Drinking Water General Design Criteria IV.1.b]
T-9	The normal working pressure in the distribution system at the service connection shall not be less than 30 psi under peak demand flow conditions. Peak demand is defined as the maximum customer water usage rate, expressed in gallons per minute (gpm), in the pressure zone of interest during a 24 hour (diurnal) time period. [Drinking Water General Design Criteria IV.1.d]
T-10	When static pressure exceeds 150 psi, pressure reducing devices shall be provided on mains or as part of the meter setting on individual service lines in the distribution system. [Drinking Water General Design Criteria IV.1.c]
T-11	The minimum size of water main in the distribution system where fire protection is not to be provided should be a minimum of three (3) inch diameter. Any departure from minimum requirements shall be justified by hydraulic analysis and future water use, and can be considered only in special circumstances. [Recommended Standards for Water Works 8.2.2, Drinking Water General Design Criteria IV.2.b]

Distribution-Water Line Extension

Northern KY Water District

Facility Requirements

Activity ID No.:APE20240010

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PORT0000000312 (Newport Water Main Replacement Ph 4) 1130 linear feet of 8 inch PVC water line, 3950 linear feet of 8 inch ductile iron water line, 1150 feet of 6 inch ductile iron water line, and 35 linear feet of 12 inch ductile iron water line:

Narrative Requirements:

Condition No.	Condition
T-12	Water mains not designed to carry fire-flows shall not have fire hydrants connected to them. [Recommended Standards for Water Works 8.4.1.b]
T-13	Flushing devices should be sized to provide flows which will give a velocity of at least 2.5 feet per second in the water main being flushed. [Recommended Standards for Water Works 8.2.4.b, Recommended Standards for Water Works 8.4.1.b]
T-14	No flushing device shall be directly connected to any sewer. [Recommended Standards for Water Works 8.2.4.b, Recommended Standards for Water Works 8.4.1.b]
T-15	Pipe shall be constructed to a depth providing a minimum cover of 30 inches to top of pipe. [Drinking Water General Design Criteria IV.3.a]
T-16	Water mains shall be covered with sufficient earth or other insulation to prevent freezing. [Recommended Standards for Water Works 8.7]
T-17	A continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. Stones found in the trench shall be removed for a depth of at least six inches below the bottom of the pipe. [Recommended Standards for Water Works 8.7]
T-18	Water line installation shall incorporate the provisions of the AWWA standards and/or manufacturer's recommended installation procedures. [Recommended Standards for Water Works 8.7]
T-19	All materials used for the rehabilitation of water mains shall meet ANSI/NSF standards. [Recommended Standards for Water Works 8.1]
T-20	Packing and jointing materials used in the joints of pipe shall meet the standards of AWWA and the reviewing authority. [Recommended Standards for Water Works 8.1]
T-21	All tees, bends, plugs and hydrants shall be provided with reaction blocking, tie rods or joints designed to prevent movement. [Recommended Standards for Water Works 8.7]
T-22	All materials including pipe, fittings, valves and fire hydrants shall conform to the latest standards issued by the ASTM, AWWA and ANSI/NSF, where such standards exist, and be acceptable to the Division of Water. [Recommended Standards for Water Works 8.1]
T-23	Water mains which have been used previously for conveying potable water may be reused provided they meet the above standards and have been restored practically to their original condition. [Recommended Standards for Water Works 8.1]

Distribution-Water Line Extension

Northern KY Water District

Facility Requirements

Activity ID No.:APE20240010

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PORT0000000312 (Newport Water Main Replacement Ph 4) 1130 linear feet of 8 inch PVC water line, 3950 linear feet of 8 inch ductile iron water line, 1150 feet of 6 inch ductile iron water line, and 35 linear feet of 12 inch ductile iron water line:

Narrative Requirements:

Condition No.	Condition
T-24	Manufacturer approved transition joints shall be used between dissimilar piping materials. [Recommended Standards for Water Works 8.1]
T-25	The minimum size of water main which provides for fire protection and serving fire hydrants shall be six-inch diameter. [Recommended Standards for Water Works 8.2, Drinking Water General Design Criteria IV.2.a]
T-26	Pipes and pipe fittings containing more than 8% lead shall not be used. All products shall comply with ANSI/NSF standards. [Recommended Standards for Water Works 8.1]
T-27	Gaskets containing lead shall not be used. Repairs to lead-joint pipe shall be made using alternative methods. [Recommended Standards for Water Works 8.1]
T-28	Pipe materials shall be selected to protect against both internal and external pipe corrosion. [Recommended Standards for Water Works 8.1]
T-29	Dead end mains shall be equipped with a means to provide adequate flushing. [Recommended Standards for Water Works 8.2]
T-30	The hydrant lead shall be a minimum of six inches in diameter. Auxiliary valves shall be installed on all hydrant leads. [Recommended Standards for Water Works 8.4.3]
T-31	A sufficient number of valves shall be provided on water mains to minimize inconvenience and sanitary hazards during repairs. [Recommended Standards for Water Works 8.3]
T-32	Wherever possible, chambers, pits or manholes containing valves, blow-offs, meters, or other such appurtenances to a distribution system, shall not be located in areas subject to flooding or in areas of high groundwater. Such chambers or pits should drain to the ground surface, or to absorption pits underground. The chambers, pits and manholes shall not connect directly to any storm drain or sanitary sewer. Blow-offs shall not connect directly to any storm drain or sanitary sewer. [Recommended Standards for Water Works 8.6]
T-33	At high points in water mains where air can accumulate provisions shall be made to remove the air by means of air relief valves. [Recommended Standards for Water Works 8.5.1]
T-34	Automatic air relief valves shall not be used in situations where flooding of the manhole or chamber may occur. [Recommended Standards for Water Works 8.5.1]

Distribution-Water Line Extension

Northern KY Water District

Facility Requirements

Activity ID No.:APE20240010

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PORT0000000312 (Newport Water Main Replacement Ph 4) 1130 linear feet of 8 inch PVC water line, 3950 linear feet of 8 inch ductile iron water line, 1150 feet of 6 inch ductile iron water line, and 35 linear feet of 12 inch ductile iron water line:

Narrative Requirements:

Condition No.	Condition
T-35	The open end of an air relief pipe from automatic valves shall be extended to at least one foot above grade and provided with a screened, downward-facing elbow. [Recommended Standards for Water Works 8.5.2.c]
T-36	Discharge piping from air relief valves shall not connect directly to any storm drain, storm sewer, or sanitary sewer. [Recommended Standards for Water Works 8.5.2.d]
T-37	Water pipe shall be constructed with a lateral separation of 10 feet or more from any gravity sanitary or combined sewer measured edge to edge where practical. If not practical a variance may be requested to allow the water pipe to be installed closer to the gravity sanitary or combined sewer provided the water pipe is laid in a separate trench or undisturbed shelf located on one side of the sewer with the bottom of the pipe at least 18 inches above the top of the gravity sanitary or combined sewer pipe. [Drinking Water General Design Criteria IV.3.b]
T-38	Water lines crossing sanitary, combined or storm sewers shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sanitary, combined or storm sewer with preference to the water main located above the sanitary, combined or storm sewer. [Drinking Water General Design Criteria IV.3.c]
T-39	At crossings, one full length of water pipe shall be located so both joints will be as far from the sewer as possible. [Recommended Standards for Water Works 8.8.3.b]
T-40	There shall be no connection between the distribution system and any pipes, pumps, hydrants, or tanks whereby unsafe water or other contaminating materials may be discharged or drawn into the system. [Recommended Standards for Water Works 8.10.1]
T-41	Water utilities shall have a cross connection program conforming to 401 KAR 8. [Recommended Standards for Water Works 8.10.1]
T-42	Installed pipe shall be pressure tested and leakage tested in accordance with the appropriate AWWA Standards. [Recommended Standards for Water Works 8.7.6]
T-43	New, cleaned and repaired water mains shall be disinfected in accordance with AWWA Standard C651. The specifications shall include detailed procedures for the adequate flushing, disinfection, and microbiological testing of all water mains. In an emergency or unusual situation, the disinfection procedure shall be discussed with the Division of Water. [Recommended Standards for Water Works 8.7.7]
T-44	A minimum cover of five feet shall be provided over pipe crossing underwater. [Recommended Standards for Water Works 8.9.2]

Distribution-Water Line Extension

Northern KY Water District

Facility Requirements

Activity ID No.:APE20240010

Page 5 of 5

PORT0000000312 (Newport Water Main Replacement Ph 4) 1130 linear feet of 8 inch PVC water line, 3950 linear feet of 8 inch ductile iron water line, 1150 feet of 6 inch ductile iron water line, and 35 linear feet of 12 inch ductile iron water line:

Narrative Requirements:

Condition No.	Condition
T-45	Valves shall be provided at both ends of water crossings so that the section can be isolated for testing or repair; the valves shall be easily accessible, and not subject to flooding for pipes crossing underwater. [Recommended Standards for Water Works 8.9.2.b]
T-46	Permanent taps or other provisions to allow insertion of a small meter to determine leakage and obtain water samples on each side of the valve closest to the supply source for pipes crossing. [Recommended Standards for Water Works 8.9.2.c]



City of Newport

998 Monmouth Street
Newport, Kentucky 41071
Ray Ebert, Public Works Director

Phone: (859) 250-3000
Fax: (859) 292-3663

Northern Kentucky Water District
Attn: Steve Broering
sbroering@nkywater.org

October 15, 2024

Subject: Water Main Replacement Phases 1-4

Dear Mr. Broering,

The City of Newport Kentucky is hereby giving you approval to move along with your Phases 1-4 Water Main Replacement Project.

Sincerely,

Ray Ebert
Public Works Director

WWW.NEWPORTKY.GOV

MAKE IT YOUR HOME TOO



EXHIBIT C

BID INFORMATION AND BOARD APPROVAL



EXHIBIT C-1

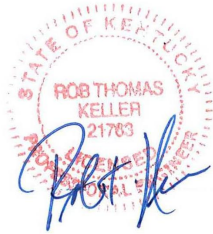
BID TABULATION



NEWPORT WMR – PHASE 3

Newport Water Main Replacement Phase 3 of WX21037311 Newport, Campbell County, Kentucky (#9489314)

Owner: Northern Kentucky Water District
Solicitor: Northern Kentucky Water District
02/27/2025 02:00 PM EST



						Lonkard Construction Company		Rack & Ballauer Excavating co., Inc.		Rector Excavating	
Section Title	Line Item	Item Code	Item Description	UofM	Quantity	Unit Price	Extension	Unit Price	Extension	Unit Price	Extension
Section A - East 3rd Street (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)							\$559,411.50		\$611,337.00		\$592,075.00
	A1	A1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (8"). (Detail 103, 103a, 104, 104a, 110)	LF	23	\$257.50	\$5,922.50	\$304.00	\$6,992.00	\$250.00	\$5,750.00
	A2	A2	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8") (Detail 103, 103a, 104, 104a, 110)	LF	1200	\$219.00	\$262,800.00	\$250.00	\$300,000.00	\$238.00	\$285,600.00
	A3	A3	6.03B C-900, C-909 Poly Vinyl Chloride (PVC) (8") - RESTRAINED JOINT	LF	100	\$247.50	\$24,750.00	\$260.00	\$26,000.00	\$275.00	\$27,500.00
	A4	A4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (12")	EA	2	\$6,000.00	\$12,000.00	\$10,500.00	\$21,000.00	\$6,000.00	\$12,000.00
	A5	A5	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6")	EA	1	\$4,000.00	\$4,000.00	\$5,500.00	\$5,500.00	\$2,000.00	\$2,000.00
	A6	A6	7.01 CONNECT TO EXISTING MAIN/TIE-IN (4")	EA	1	\$3,500.00	\$3,500.00	\$5,500.00	\$5,500.00	\$1,450.00	\$1,450.00
	A7	A7	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2	\$7,250.00	\$14,500.00	\$9,200.00	\$18,400.00	\$8,200.00	\$16,400.00
	A8	A8	8.03 REMOVE FIRE HYDRANT	EA	2	\$500.00	\$1,000.00	\$300.00	\$600.00	\$200.00	\$400.00
	A9	A9	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8")	EA	7	\$2,500.00	\$17,500.00	\$1,950.00	\$13,650.00	\$2,450.00	\$17,150.00
	A10	A10	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	30	\$2,750.00	\$82,500.00	\$1,910.00	\$57,300.00	\$2,950.00	\$88,500.00
	A11	A11	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (1.5") (Service line materials provided by NKWD)	EA	1	\$4,000.00	\$4,000.00	\$5,300.00	\$5,300.00	\$2,700.00	\$2,700.00
	A15	A15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (312 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A16	A16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (314 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A17	A17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (315 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A19	A19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (317 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A20	A20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (321 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A23	A23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (335 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,850.00	\$1,850.00
	A24	A24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (411 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A25	A25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (413 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A26	A26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (415 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A27	A27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (417 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A28	A28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (418 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A29	A29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (420 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A30	A30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (421 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A31	A31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (422 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A32	A32	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (502 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A33	A33	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (528 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A35	A35	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (538 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A36	A36	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (540 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A38	A38	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (544 E. 3rd Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A39	A39	11.01 CONCRETE ENCASEMENT	LF	20	\$100.00	\$2,000.00	\$150.00	\$3,000.00	\$95.00	\$1,900.00
	A40	A40	11.06 ANCHORING TEE AND BLOCK (12"x12"x8")	EA	2	\$1,800.00	\$3,600.00	\$760.00	\$1,520.00	\$800.00	\$1,600.00
	A41	A41	11.06 ANCHORING TEE AND BLOCK (8"x8"x8")	EA	2	\$1,200.00	\$2,400.00	\$540.00	\$1,080.00	\$600.00	\$1,200.00
	A42	A42	11.06 ANCHORING TEE AND BLOCK (8"x8"x6")	EA	2	\$1,000.00	\$2,000.00	\$450.00	\$900.00	\$575.00	\$1,150.00
	A43	A43	11.09 REDUCER (8"x6")	EA	1	\$425.00	\$425.00	\$170.00	\$170.00	\$400.00	\$400.00
	A44	A44	11.09 REDUCER (8"x4")	EA	1	\$375.00	\$375.00	\$160.00	\$160.00	\$375.00	\$375.00
	A45	A45	11.15 SLEEVE OUT EXISTING TEE	EA	2	\$4,000.00	\$8,000.00	\$10,300.00	\$20,600.00	\$1,600.00	\$3,200.00
	A46	A46	11.19 TRAFFIC LOOP DETECTOR	EA	1	\$3,500.00	\$3,500.00	\$4,000.00	\$4,000.00	\$3,800.00	\$3,800.00
	A47	A47	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	1460	\$20.90	\$30,514.00	\$21.00	\$30,660.00	\$32.00	\$46,720.00
	A48	A48	12.09 CONCRETE PAVEMENT (Trench)	SY	435	\$75.00	\$32,625.00	\$73.00	\$31,755.00	\$62.00	\$26,970.00
	A49	A49	12.09 CONCRETE PAVEMENT (Full Panel)	SY	70	\$125.00	\$8,750.00	\$350.00	\$24,500.00	\$108.00	\$7,560.00
	A50	A50	12.11 CONCRETE CURBING	LF	50	\$75.00	\$3,750.00	\$75.00	\$3,750.00	\$88.00	\$4,400.00
	A51	A51	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$500.00	\$500.00	\$500.00	\$500.00	\$4,500.00	\$4,500.00
Section B - East 5th Street							\$444,895.00		\$464,737.00		\$473,850.00
	B1	B1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (8"). (Detail 103, 103a, 104, 104a, 110)	LF	40	\$257.50	\$10,300.00	\$292.00	\$11,680.00	\$300.00	\$12,000.00
	B2	B2	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8") (Detail 103, 103a, 104, 104a, 110)	LF	890	\$219.00	\$194,910.00	\$250.00	\$222,500.00	\$245.00	\$218,050.00
	B3	B3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (12")	EA	2	\$6,000.00	\$12,000.00	\$10,500.00	\$21,000.00	\$6,000.00	\$12,000.00
	B4	B4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6")	EA	1	\$4,000.00	\$4,000.00	\$5,500.00	\$5,500.00	\$2,000.00	\$2,000.00
	B5	B5	7.01 CONNECT TO EXISTING MAIN/TIE-IN (4")	EA	2	\$3,500.00	\$7,000.00	\$5,500.00	\$11,000.00	\$1,500.00	\$3,000.00
	B6	B6	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2	\$7,250.00	\$14,500.00	\$9,200.00	\$18,400.00	\$8,200.00	\$16,400.00
	B7	B7	8.03 REMOVE FIRE HYDRANT	EA	2	\$500.00	\$1,000.00	\$300.00	\$600.00	\$220.00	\$440.00
	B8	B8	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (12")	EA	2	\$4,000.00	\$8,000.00	\$3,460.00	\$6,920.00	\$4,200.00	\$8,400.00
	B9	B9	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8")	EA	9	\$2,500.00	\$22,500.00	\$1,950.00	\$17,550.00	\$2,400.00	\$21,600.00

	B10	B10	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	26	\$2,750.00	\$71,500.00	\$1,910.00	\$49,660.00	\$2,900.00	\$75,400.00
	B11	B11	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (421 Washington Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B12	B12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (311 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B13	B13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (315 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B14	B14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (322 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B15	B15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (502 Overton Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B16	B16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (402 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B17	B17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (403 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B18	B18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (405 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B19	B19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (406 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B20	B20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (407 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B21	B21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (408 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B22	B22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (410 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B23	B23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (411 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B24	B24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (412 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B25	B25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (415 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B26	B26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (417 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B27	B27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (419-421 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B28	B28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (422 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B29	B29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (423 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B30	B30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (502 Monroe Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B31	B31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (425 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B32	B32	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (433 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B33	B33	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (437 E. 5th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B34	B34	11.01 CONCRETE ENCASEMENT	LF	20	\$100.00	\$2,000.00	\$150.00	\$3,000.00	\$95.00	\$1,900.00
	B35	B35	11.04 PLUG AND BLOCK (6")	EA	1	\$750.00	\$750.00	\$150.00	\$150.00	\$450.00	\$450.00
	B36	B36	11.06 ANCHORING TEE AND BLOCK (12"x12"x8")	EA	2	\$1,800.00	\$3,600.00	\$760.00	\$1,520.00	\$800.00	\$1,600.00
	B37	B37	11.06 ANCHORING TEE AND BLOCK (8"x8"x8")	EA	1	\$1,200.00	\$1,200.00	\$540.00	\$540.00	\$650.00	\$650.00
	B38	B38	11.06 ANCHORING TEE AND BLOCK (8"x8"x6")	EA	2	\$1,000.00	\$2,000.00	\$450.00	\$900.00	\$600.00	\$1,200.00
	B39	B39	11.08 DUCTILE IRON CROSS (8"x8")	EA	1	\$1,500.00	\$1,500.00	\$570.00	\$570.00	\$800.00	\$800.00
	B40	B40	11.09 REDUCER (8"x6")	EA	1	\$425.00	\$425.00	\$170.00	\$170.00	\$400.00	\$400.00
	B41	B41	11.09 REDUCER (8"x4")	EA	2	\$375.00	\$750.00	\$160.00	\$320.00	\$350.00	\$700.00
	B42	B42	11.15 SLEEVE OUT EXISTING TEE	EA	1	\$4,000.00	\$4,000.00	\$10,300.00	\$10,300.00	\$1,500.00	\$1,500.00
	B43	B43	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	1150	\$20.90	\$24,035.00	\$21.00	\$24,150.00	\$29.00	\$33,350.00
	B44	B44	12.09 CONCRETE PAVEMENT (Trench)	SY	309	\$75.00	\$23,175.00	\$73.00	\$22,557.00	\$70.00	\$21,630.00
	B45	B45	12.11 CONCRETE CURBING	LF	10	\$75.00	\$750.00	\$75.00	\$750.00	\$88.00	\$880.00
	B46	B46	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$500.00	\$500.00	\$500.00	\$500.00	\$5,000.00	\$5,000.00
Section C - East 7th Street							\$765,935.00		\$776,898.00		\$804,040.00
	C1	C1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (8"). (Detail 103, 103a, 104, 104a, 110)	LF	44	\$257.50	\$11,330.00	\$287.00	\$12,628.00	\$300.00	\$13,200.00
	C2	C2	6.02.B CLASS 50 or 52 DUCTILE IRON PIPE (6") - RESTRAINED JOINT	LF	30	\$261.50	\$7,845.00	\$276.00	\$8,280.00	\$285.00	\$8,550.00
	C3	C3	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8") (Detail 103, 103a, 104, 104a, 110)	LF	1470	\$219.00	\$321,930.00	\$250.00	\$367,500.00	\$242.00	\$355,740.00
	C4	C4	6.03B C-900, C-909 Poly Vinyl Chloride (PVC) (8") - RESTRAINED JOINT	LF	100	\$247.50	\$24,750.00	\$260.00	\$26,000.00	\$220.00	\$22,000.00
	C5	C5	7.01 CONNECT TO EXISTING MAIN/TIE-IN (12")	EA	2	\$6,000.00	\$12,000.00	\$10,500.00	\$21,000.00	\$6,000.00	\$12,000.00
	C6	C6	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6")	EA	4	\$4,000.00	\$16,000.00	\$5,500.00	\$22,000.00	\$2,200.00	\$8,800.00
	C7	C7	7.01 CONNECT TO EXISTING MAIN/TIE-IN (4")	EA	2	\$3,500.00	\$7,000.00	\$5,500.00	\$11,000.00	\$1,800.00	\$3,600.00
	C8	C8	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2	\$7,250.00	\$14,500.00	\$9,200.00	\$18,400.00	\$8,100.00	\$16,200.00
	C9	C9	8.03 REMOVE FIRE HYDRANT	EA	2	\$500.00	\$1,000.00	\$300.00	\$600.00	\$250.00	\$500.00
	C10	C10	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (12")	EA	3	\$4,000.00	\$12,000.00	\$3,460.00	\$10,380.00	\$4,100.00	\$12,300.00
	C11	C11	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8")	EA	21	\$2,500.00	\$52,500.00	\$1,950.00	\$40,950.00	\$2,400.00	\$50,400.00
	C12	C12	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6")	EA	2	\$1,950.00	\$3,900.00	\$1,330.00	\$2,660.00	\$1,700.00	\$3,400.00
	C13	C13	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	40	\$2,750.00	\$110,000.00	\$1,910.00	\$76,400.00	\$2,950.00	\$118,000.00
	C14	C14	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (2") (Service line materials provided by NKWD)	EA	1	\$6,000.00	\$6,000.00	\$6,000.00	\$6,000.00	\$3,200.00	\$3,200.00
	C15	C15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (701 Monmouth Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C16	C16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (647 Monmouth Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C17	C17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (110 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C18	C18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (112 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C19	C19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (114 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C20	C20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (116 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C21	C21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (123 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C22	C22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (127 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C23	C23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (701 Dayton Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00

	C24	C24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (129 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C25	C25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (133 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C26	C26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (135 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C27	C27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (702 Saratoga Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C28	C28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (203 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C29	C29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (204 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C30	C30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (206 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C31	C31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (207 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C32	C32	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (209 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C33	C33	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (212 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C34	C34	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (213 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C35	C35	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (214 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C36	C36	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (224-226 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C37	C37	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (225 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C38	C38	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (227 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C39	C39	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (229 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C40	C40	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (230 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C41	C41	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (233 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C42	C42	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (234 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C43	C43	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (235 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C44	C44	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (645 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C45	C45	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (701 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C46	C46	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (808 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C47	C47	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (810 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C48	C48	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (818 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C49	C49	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (820 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C50	C50	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (822 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C51	C51	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (824 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C52	C52	11.04 PLUG AND BLOCK (8")	EA	1	\$1,000.00	\$1,000.00	\$160.00	\$160.00	\$500.00	\$500.00
	C53	C53	11.04 PLUG AND BLOCK (6")	EA	2	\$750.00	\$1,500.00	\$150.00	\$300.00	\$450.00	\$900.00
	C54	C54	11.06 ANCHORING TEE AND BLOCK (12"x12"x8")	EA	2	\$1,800.00	\$3,600.00	\$760.00	\$1,520.00	\$850.00	\$1,700.00
	C55	C55	11.06 ANCHORING TEE AND BLOCK (8"x8"x8")	EA	1	\$1,200.00	\$1,200.00	\$540.00	\$540.00	\$650.00	\$650.00
	C56	C56	11.06 ANCHORING TEE AND BLOCK (8"x8"x6")	EA	2	\$1,000.00	\$2,000.00	\$450.00	\$900.00	\$650.00	\$1,300.00
	C57	C57	11.06 ANCHORING TEE AND BLOCK (6"x6"x6")	EA	1	\$875.00	\$875.00	\$450.00	\$450.00	\$600.00	\$600.00
	C58	C58	11.08 DUCTILE IRON CROSS (8"x8")	EA	4	\$1,500.00	\$6,000.00	\$570.00	\$2,280.00	\$800.00	\$3,200.00
	C59	C59	11.09 REDUCER (8"x6")	EA	3	\$425.00	\$1,275.00	\$170.00	\$510.00	\$400.00	\$1,200.00
	C60	C60	11.09 REDUCER (8"x4")	EA	2	\$375.00	\$750.00	\$160.00	\$320.00	\$350.00	\$700.00
	C61	C61	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	2200	\$20.90	\$45,980.00	\$21.00	\$46,200.00	\$29.00	\$63,800.00
	C62	C62	12.09 CONCRETE PAVEMENT (Trench)	SY	540	\$75.00	\$40,500.00	\$73.00	\$39,420.00	\$65.00	\$35,100.00
	C63	C63	12.11 CONCRETE CURBING	LF	60	\$75.00	\$4,500.00	\$75.00	\$4,500.00	\$100.00	\$6,000.00
	C64	C64	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$500.00	\$500.00	\$500.00	\$500.00	\$5,000.00	\$5,000.00
Section D - Roberts Street							\$619,088.00		\$724,248.00		\$667,982.00
	D1	D1	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8") (Detail 103, 103a, 104, 104a, 110)	LF	1300	\$219.00	\$284,700.00	\$250.00	\$325,000.00	\$245.00	\$318,500.00
	D2	D2	7.01 CONNECT TO EXISTING MAIN/TIE-IN (8")	EA	1	\$4,750.00	\$4,750.00	\$5,500.00	\$5,500.00	\$4,000.00	\$4,000.00
	D3	D3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (4")	EA	3	\$3,500.00	\$10,500.00	\$5,500.00	\$16,500.00	\$2,000.00	\$6,000.00
	D4	D4	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	1	\$7,250.00	\$7,250.00	\$9,200.00	\$9,200.00	\$8,200.00	\$8,200.00
	D5	D5	8.03 REMOVE FIRE HYDRANT	EA	1	\$500.00	\$500.00	\$300.00	\$300.00	\$250.00	\$250.00
	D6	D6	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8")	EA	5	\$2,500.00	\$12,500.00	\$1,950.00	\$9,750.00	\$2,450.00	\$12,250.00
	D7	D7	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	53	\$2,750.00	\$145,750.00	\$1,910.00	\$101,230.00	\$2,950.00	\$156,350.00
	D8	D8	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (601 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D9	D9	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (218 E. 6th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D10	D10	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (611 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D11	D11	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (612 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D12	D12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (613 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D13	D13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (615 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D14	D14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (618A Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D15	D15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (618B Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D16	D16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (619 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D17	D17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (620A Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D18	D18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (620B Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D19	D19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (621 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00

	D20	D20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (622A Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D21	D21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (622B Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D22	D22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (624 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D23	D23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (626 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D24	D24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (628 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D25	D25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (630Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D26	D26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (634 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D27	D27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (636 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D28	D28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (637 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D29	D29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (638 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D30	D30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (640 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D31	D31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (216 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D32	D32	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (222 E. 7th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D33	D33	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (711 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D34	D34	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (712 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D35	D35	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (714 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D36	D36	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (715 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D37	D37	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (716 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D38	D38	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (717 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D39	D39	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (719 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D40	D40	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (720 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D41	D41	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (721 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D42	D42	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (722 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D43	D43	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (723 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D44	D44	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (724 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D45	D45	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (725 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D46	D46	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (726 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D47	D47	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (728 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D48	D48	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (223 E. 8th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D49	D49	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (215 E. 8th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D50	D50	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (222 E. 8th Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D51	D51	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (805-807 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D52	D52	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (808 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D53	D53	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (814 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D54	D54	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (815 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D55	D55	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (816 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D56	D56	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (822 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D57	D57	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (827 Roberts Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D58	D58	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	1	\$3,000.00	\$3,000.00	\$1,910.00	\$1,910.00	\$3,000.00	\$3,000.00
	D59	D59	11.06 ANCHORING TEE AND BLOCK (8"x8"x6")	EA	1	\$1,000.00	\$1,000.00	\$450.00	\$450.00	\$680.00	\$680.00
	D60	D60	11.08 DUCTILE IRON CROSS (8"x8")	EA	1	\$1,500.00	\$1,500.00	\$570.00	\$570.00	\$700.00	\$700.00
	D61	D61	11.09 REDUCER (8"x4")	EA	3	\$375.00	\$1,125.00	\$160.00	\$480.00	\$350.00	\$1,050.00
	D62	D62	11.18 PROVIDE & MAINTAIN TEMPORARY WATER SERVICE (800 block of Roberts)	LS	1	\$5,000.00	\$5,000.00	\$112,500.00	\$112,500.00	\$3,000.00	\$3,000.00
	D63	D63	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	1570	\$20.90	\$32,813.00	\$21.00	\$32,970.00	\$28.00	\$43,960.00
	D64	D64	12.09 CONCRETE PAVEMENT (Trench)	SY	426	\$75.00	\$31,950.00	\$73.00	\$31,098.00	\$67.00	\$28,542.00
	D65	D65	12.11 CONCRETE CURBING	LF	10	\$75.00	\$750.00	\$75.00	\$750.00	\$100.00	\$1,000.00
	D66	D66	12.12 CONCRETE SIDEWALK	SY	4	\$125.00	\$500.00	\$135.00	\$540.00	\$125.00	\$500.00
	D67	D67	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$500.00	\$500.00	\$500.00	\$500.00	\$5,000.00	\$5,000.00
Section E - Oak Street								\$306,585.30		\$298,189.00	\$378,786.00
	E1	E1	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8") (Detail 103, 103a, 104, 104a, 110)	LF	500	\$219.00	\$109,500.00	\$250.00	\$125,000.00	\$325.00	\$162,500.00
	E2	E2	6.03B C-900, C-909 Poly Vinyl Chloride (PVC) (8") - RESTRAINED JOINT	LF	90	\$247.50	\$22,275.00	\$260.00	\$23,400.00	\$340.00	\$30,600.00
	E3	E3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6")	EA	2	\$4,000.00	\$8,000.00	\$5,500.00	\$11,000.00	\$2,800.00	\$5,600.00
	E4	E4	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8")	EA	3	\$2,500.00	\$7,500.00	\$1,950.00	\$5,850.00	\$2,450.00	\$7,350.00
	E5	E5	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	27	\$2,750.00	\$74,250.00	\$1,910.00	\$51,570.00	\$2,950.00	\$79,650.00
	E6	E6	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (1") (Service line materials provided by NKWD)	EA	1	\$3,500.00	\$3,500.00	\$2,000.00	\$2,000.00	\$1,500.00	\$1,500.00
	E7	E7	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (601 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E8	E8	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (603 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E9	E9	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (605 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E10	E10	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (607 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E11	E11	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (608 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E12	E12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (609 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00

	E13	E13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (610 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E14	E14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (611 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E15	E15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (612 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E16	E16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (614 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E17	E17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (616 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E18	E18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (629 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E19	E19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (630 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E20	E20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (631 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E21	E21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (635 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E22	E22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (638 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E23	E23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (639 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E24	E24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (640 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E25	E25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (641 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E26	E26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (643 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E27	E27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (644 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E28	E28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (647 Oak Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E29	E29	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	1	\$3,000.00	\$3,000.00	\$1,910.00	\$1,910.00	\$3,000.00	\$3,000.00
	E30	E30	11.06 ANCHORING TEE AND BLOCK (8"x8"x8")	EA	1	\$1,200.00	\$1,200.00	\$540.00	\$540.00	\$550.00	\$550.00
	E31	E31	11.09 REDUCER (8"x6")	EA	2	\$425.00	\$850.00	\$170.00	\$340.00	\$425.00	\$850.00
	E32	E32	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	967	\$20.90	\$20,210.30	\$21.00	\$20,307.00	\$28.00	\$27,076.00
	E33	E33	12.09 CONCRETE PAVEMENT (Trench)	SY	194	\$75.00	\$14,550.00	\$73.00	\$14,162.00	\$65.00	\$12,610.00
	E34	E34	12.11 CONCRETE CURBING	LF	50	\$75.00	\$3,750.00	\$75.00	\$3,750.00	\$100.00	\$5,000.00
	E35	E35	12.12 CONCRETE SIDEWALK	SY	36	\$125.00	\$4,500.00	\$135.00	\$4,860.00	\$125.00	\$4,500.00
	E36	E36	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$500.00	\$500.00	\$500.00	\$500.00	\$5,000.00	\$5,000.00
Section F - Linden Avenue							\$1,075,820.00		\$1,065,906.00		\$1,144,500.00
	F1	F1	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8") (Detail 103, 103a, 104, 104a, 110)	LF	2200	\$219.00	\$481,800.00	\$250.00	\$550,000.00	\$242.00	\$532,400.00
	F2	F2	6.03B C-900, C-909 Poly Vinyl Chloride (PVC) (8") - RESTRAINED JOINT	LF	60	\$247.50	\$14,850.00	\$262.00	\$15,720.00	\$256.00	\$15,360.00
	F3	F3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6")	EA	6	\$4,000.00	\$24,000.00	\$5,500.00	\$33,000.00	\$3,000.00	\$18,000.00
	F4	F4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (4")	EA	1	\$3,500.00	\$3,500.00	\$5,500.00	\$5,500.00	\$2,000.00	\$2,000.00
	F5	F5	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2	\$7,250.00	\$14,500.00	\$9,200.00	\$18,400.00	\$8,200.00	\$16,400.00
	F6	F6	8.03 REMOVE FIRE HYDRANT	EA	2	\$500.00	\$1,000.00	\$300.00	\$600.00	\$200.00	\$400.00
	F7	F7	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8")	EA	15	\$2,500.00	\$37,500.00	\$1,950.00	\$29,250.00	\$2,450.00	\$36,750.00
	F8	F8	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	83	\$2,750.00	\$228,250.00	\$1,910.00	\$158,530.00	\$2,950.00	\$244,850.00
	F9	F9	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (1") (Service line materials provided by NKWD)	EA	2	\$3,500.00	\$7,000.00	\$1,950.00	\$3,900.00	\$3,100.00	\$6,200.00
	F10	F10	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (666 Nelson Street) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F11	F11	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (508 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F12	F12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (510 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F13	F13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (514 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F14	F14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (522 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F15	F15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (524 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F16	F16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (528 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F17	F17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (530 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F18	F18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (534 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F19	F19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (536A Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F20	F20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (536B Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F21	F21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (604 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F22	F22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (605 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F23	F23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (607 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F24	F24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (610 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F25	F25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (611 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F26	F26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (612 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F27	F27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (614 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F28	F28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (616 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F29	F29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (618 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F30	F30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (620 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F31	F31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (628 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F32	F32	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (630 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F33	F33	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (631 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F34	F34	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (633 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F35	F35	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (634 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	F36	F36	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT (638 Linden Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00**	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00

[illegible]



NEWPORT WMR – PHASE 4

Newport Water Main Replacement Phase 4 of WX21037311 Newport, Campbell County, Kentucky (#9497768)

Owner: Northern Kentucky Water District

Solicitor: Northern Kentucky Water District

03/06/2025 02:00 PM EST



Section Title	Line Item	Item Code	Item Description	UofM	Quantity	Rector Excavating		Rack & Ballauer Excavating co., Inc.		Lonkard Construction Company	
						Unit Price	Extension	Unit Price	Extension	Unit Price	Extension
Section A - Joyce Avenue (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)								\$865,256.85		\$875,548.00	\$979,996.00
	A1	A1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (8-inch). (Detail 103, 103a, 104, 104a, 110)	LF	2045	\$207.00	\$423,315.00	\$208.00	\$425,360.00	\$220.00	\$449,900.00
	A2	A2	6.02.B CLASS 50 or 52 DUCTILE IRON PIPE (8-inch) - RESTRAINED JOINT	LF	132	\$175.00	\$23,100.00	\$218.00	\$28,776.00	\$245.00	\$32,340.00
	A3	A3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch)	EA	2	\$2,000.00	\$4,000.00	\$5,500.00	\$11,000.00	\$4,000.00	\$8,000.00
	A4	A4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (8-inch)	EA	4	\$2,400.00	\$9,600.00	\$5,500.00	\$22,000.00	\$4,750.00	\$19,000.00
	A5	A5	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2	\$7,750.00	\$15,500.00	\$9,250.00	\$18,500.00	\$7,500.00	\$15,000.00
	A6	A6	8.03 REMOVE FIRE HYDRANT	EA	2	\$200.00	\$400.00	\$300.00	\$600.00	\$500.00	\$1,000.00
	A7	A7	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8-inch)	EA	6	\$2,400.00	\$14,400.00	\$1,750.00	\$10,500.00	\$2,500.00	\$15,000.00
	A8	A8	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	76	\$2,100.00	\$159,600.00	\$1,800.00	\$136,800.00	\$2,800.00	\$212,800.00
	A9	A9	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2108 New Linden) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A10	A10	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2101 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A11	A11	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2118 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A12	A12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2120 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A13	A13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2122 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A14	A14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2200 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A15	A15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2202 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A16	A16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2204 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A17	A17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2121 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A18	A18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2203 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A19	A19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2205 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A20	A20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2206 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A21	A21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2208 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A22	A22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2210 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A23	A23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2212 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A24	A24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2214 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A25	A25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2216 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A26	A26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2218 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A27	A27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2220 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A28	A28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2222 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A29	A29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2224 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A30	A30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2207 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A31	A31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2211 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A32	A32	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2213 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A33	A33	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2215 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A34	A34	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2217 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A35	A35	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2219 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A36	A36	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2221 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A37	A37	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2223 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A38	A38	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2226 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A39	A39	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2228 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A40	A40	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2230 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A41	A41	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2232 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A42	A42	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2234 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A43	A43	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2238 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A44	A44	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2240 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A45	A45	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2242 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A46	A46	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2225 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A47	A47	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2229 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A48	A48	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2233 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A49	A49	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2235 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A50	A50	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2237 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A51	A51	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2241 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A52	A52	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2290 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A53	A53	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(232 Poplar Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00

	A54	A54	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(235 Poplar Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A55	A55	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2302 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A56	A56	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2304 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A57	A57	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2306 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A58	A58	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2308 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A59	A59	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2310 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A60	A60	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2312 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A61	A61	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2315 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A62	A62	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2319 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A63	A63	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2331 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A64	A64	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2329 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A65	A65	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2314 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A66	A66	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2316 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A67	A67	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2318 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A68	A68	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2320 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A69	A69	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2322 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A70	A70	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2324 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A71	A71	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2325 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A72	A72	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2323 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A73	A73	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2321 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A74	A74	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2317 Joyce Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	A75	A75	11.01 CONCRETE ENCASEMENT	LF	20	\$100.00	\$2,000.00	\$150.00	\$3,000.00	\$150.00	\$3,000.00
	A76	A76	11.06 ANCHORING TEE AND BLOCK (8-inch x 8-inch x 6-inch)	EA	2	\$750.00	\$1,500.00	\$280.00	\$560.00	\$1,000.00	\$2,000.00
	A77	A77	11.06 ANCHORING TEE AND BLOCK (8-inch x 8-inch x 8-inch)	EA	2	\$800.00	\$1,600.00	\$410.00	\$820.00	\$1,200.00	\$2,400.00
	A78	A78	11.09 REDUCER (8-inch x 6-inch)	EA	2	\$450.00	\$900.00	\$110.00	\$220.00	\$375.00	\$750.00
	A79	A79	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	3061	\$20.85	\$63,821.85	\$21.00	\$64,281.00	\$21.00	\$64,281.00
	A80	A80	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	717	\$60.00	\$43,020.00	\$73.00	\$52,341.00	\$75.00	\$53,775.00
	A81	A81	12.11 CONCRETE CURBING	LF	10	\$100.00	\$1,000.00	\$75.00	\$750.00	\$75.00	\$750.00
	A82	A82	12.12 CONCRETE SIDEWALK	SY	4	\$125.00	\$500.00	\$135.00	\$540.00	\$125.00	\$500.00
	A83	A83	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$2,000.00	\$2,000.00	\$500.00	\$500.00	\$500.00	\$500.00
Section B - 21st Street (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)							\$233,572.75		\$238,439.00		\$260,424.00
	B1	B1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (6-inch). (Detail 103, 103a, 104, 104a, 110)	LF	445	\$210.75	\$93,783.75	\$199.00	\$88,555.00	\$210.00	\$93,450.00
	B2	B2	6.02.B CLASS 50 or 52 DUCTILE IRON PIPE (6-inch) - RESTRAINED JOINT	LF	84	\$170.00	\$14,280.00	\$209.00	\$17,556.00	\$225.00	\$18,900.00
	B3	B3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch)	EA	1	\$2,000.00	\$2,000.00	\$5,500.00	\$5,500.00	\$4,000.00	\$4,000.00
	B4	B4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (8-inch)	EA	1	\$2,800.00	\$2,800.00	\$5,500.00	\$5,500.00	\$4,750.00	\$4,750.00
	B5	B5	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	1	\$7,800.00	\$7,800.00	\$9,250.00	\$9,250.00	\$7,500.00	\$7,500.00
	B6	B6	8.03 REMOVE FIRE HYDRANT	EA	1	\$200.00	\$200.00	\$300.00	\$300.00	\$500.00	\$500.00
	B7	B7	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6-inch)	EA	1	\$1,700.00	\$1,700.00	\$1,200.00	\$1,200.00	\$1,950.00	\$1,950.00
	B8	B8	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8-inch)	EA	1	\$2,400.00	\$2,400.00	\$1,750.00	\$1,750.00	\$2,500.00	\$2,500.00
	B9	B9	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	20	\$2,175.00	\$43,500.00	\$1,800.00	\$36,000.00	\$2,800.00	\$56,000.00
	B10	B10	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(1 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B11	B11	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(3 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B12	B12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(5 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B13	B13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(7 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B14	B14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(9 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B15	B15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(13 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B16	B16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(15 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B17	B17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(19 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B18	B18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(26 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B19	B19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(8 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B20	B20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(10 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B21	B21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(12 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B22	B22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(14 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B23	B23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(18 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B24	B24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(20 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B25	B25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(27 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B26	B26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(24 21st Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	B27	B27	11.04 PLUG AND BLOCK (6-inch)	EA	1	\$400.00	\$400.00	\$50.00	\$50.00	\$750.00	\$750.00
	B28	B28	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	1	\$2,750.00	\$2,750.00	\$1,800.00	\$1,800.00	\$3,000.00	\$3,000.00
	B29	B29	11.06 ANCHORING TEE AND BLOCK (6-inch x 6-inch x 6-inch)	EA	2	\$600.00	\$1,200.00	\$230.00	\$460.00	\$875.00	\$1,750.00
	B30	B30	11.06 ANCHORING TEE AND BLOCK (8-inch x 8-inch x 8-inch)	EA	1	\$780.00	\$780.00	\$280.00	\$280.00	\$1,200.00	\$1,200.00

	B31	B31	11.10 FLUSHING DEVICE (2-INCH)	EA	1	\$3,000.00	\$3,000.00	\$3,100.00	\$3,100.00	\$3,000.00	\$3,000.00
	B32	B32	11.15 SLEEVE OUT EXISTING TEE (8-INCH)	EA	1	\$850.00	\$850.00	\$10,300.00	\$10,300.00	\$4,000.00	\$4,000.00
	B33	B33	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	819	\$21.00	\$17,199.00	\$21.00	\$17,199.00	\$21.00	\$17,199.00
	B34	B34	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	178	\$60.00	\$10,680.00	\$73.00	\$12,994.00	\$75.00	\$13,350.00
	B35	B35	12.11 CONCRETE CURBING	LF	5	\$100.00	\$500.00	\$75.00	\$375.00	\$75.00	\$375.00
	B36	B36	12.12 CONCRETE SIDEWALK	SY	2	\$125.00	\$250.00	\$135.00	\$270.00	\$125.00	\$250.00
	B37	B37	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$2,000.00	\$2,000.00	\$500.00	\$500.00	\$500.00	\$500.00
Section C - Truesdale Road (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)							\$98,302.00		\$111,641.00		\$114,657.00
	C1	C1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (6-inch). (Detail 103, 103a, 104, 104a, 110)	LF	91	\$215.00	\$19,565.00	\$201.00	\$18,291.00	\$210.00	\$19,110.00
	C2	C2	6.02.B CLASS 50 or 52 DUCTILE IRON PIPE (6-inch) - RESTRAINED JOINT	LF	168	\$180.00	\$30,240.00	\$211.00	\$35,448.00	\$225.00	\$37,800.00
	C3	C3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (8-inch)	EA	1	\$2,500.00	\$2,500.00	\$5,500.00	\$5,500.00	\$4,750.00	\$4,750.00
	C4	C4	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	1	\$7,800.00	\$7,800.00	\$9,250.00	\$9,250.00	\$7,500.00	\$7,500.00
	C5	C5	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6-inch)	EA	1	\$1,650.00	\$1,650.00	\$1,200.00	\$1,200.00	\$1,950.00	\$1,950.00
	C6	C6	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8-inch)	EA	2	\$2,400.00	\$4,800.00	\$1,750.00	\$3,500.00	\$2,500.00	\$5,000.00
	C7	C7	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	3	\$2,150.00	\$6,450.00	\$1,800.00	\$5,400.00	\$2,800.00	\$8,400.00
	C8	C8	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(14 Truesdale Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C9	C9	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(16 Truesdale Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C10	C10	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(20 Truesdale Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	C11	C11	11.04 PLUG AND BLOCK (6-inch)	EA	1	\$450.00	\$450.00	\$50.00	\$50.00	\$750.00	\$750.00
	C12	C12	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	1	\$2,500.00	\$2,500.00	\$1,800.00	\$1,800.00	\$3,000.00	\$3,000.00
	C13	C13	11.06 ANCHORING TEE AND BLOCK (6-inch x 6-inch x 6-inch)	EA	1	\$600.00	\$600.00	\$230.00	\$230.00	\$875.00	\$875.00
	C14	C14	11.06 ANCHORING TEE AND BLOCK (8-inch x 8-inch x 6-inch)	EA	1	\$750.00	\$750.00	\$280.00	\$280.00	\$1,000.00	\$1,000.00
	C15	C15	11.15 SLEEVE OUT EXISTING TEE (8-INCH)	EA	1	\$1,150.00	\$1,150.00	\$10,300.00	\$10,300.00	\$4,000.00	\$4,000.00
	C16	C16	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	507	\$21.00	\$10,647.00	\$21.00	\$10,647.00	\$21.00	\$10,647.00
	C17	C17	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	65	\$60.00	\$3,900.00	\$73.00	\$4,745.00	\$75.00	\$4,875.00
	C18	C18	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$800.00	\$800.00	\$500.00	\$500.00	\$500.00	\$500.00
Section D - Amelia/Home Streets (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)							\$693,810.10		\$742,361.00		\$821,082.00
	D1	D1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (12-inch). (Detail 103, 103a, 104, 104a, 110)	LF	81	\$182.00	\$14,742.00	\$245.00	\$19,845.00	\$250.00	\$20,250.00
	D2	D2	6.02.B CLASS 50 or 52 DUCTILE IRON PIPE (12-inch) - RESTRAINED JOINT	LF	112	\$204.00	\$22,848.00	\$255.00	\$28,560.00	\$335.00	\$37,520.00
	D3	D3	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (8-inch). (Detail 103, 103a, 104, 104a, 110)	LF	507	\$250.30	\$126,902.10	\$208.00	\$105,456.00	\$220.00	\$111,540.00
	D4	D4	6.03 C-900, C-909 Poly Vinyl Chloride (PVC) (8-inch) (Detail 103, 103a, 104, 104a, 110)	LF	134	\$148.00	\$19,832.00	\$192.00	\$25,728.00	\$210.00	\$28,140.00
	D5	D5	6.03B C-900, C-909 Poly Vinyl Chloride (PVC) (8-inch) - RESTRAINED JOINT	LF	852	\$168.00	\$143,136.00	\$202.00	\$172,104.00	\$212.00	\$180,624.00
	D6	D6	6.02.B CLASS 50 or 52 DUCTILE IRON PIPE (8-inch) - RESTRAINED JOINT	LF	271	\$172.00	\$46,612.00	\$218.00	\$59,078.00	\$245.00	\$66,395.00
	D7	D7	7.01 CONNECT TO EXISTING MAIN/TIE-IN (4-inch)	EA	1	\$1,750.00	\$1,750.00	\$5,500.00	\$5,500.00	\$3,500.00	\$3,500.00
	D8	D8	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch)	EA	2	\$2,250.00	\$4,500.00	\$5,500.00	\$11,000.00	\$4,000.00	\$8,000.00
	D9	D9	7.01 CONNECT TO EXISTING MAIN/TIE-IN (10-inch)	EA	1	\$2,750.00	\$2,750.00	\$10,300.00	\$10,300.00	\$5,500.00	\$5,500.00
	D10	D10	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	4	\$7,800.00	\$31,200.00	\$9,250.00	\$37,000.00	\$7,500.00	\$30,000.00
	D11	D11	8.03 REMOVE FIRE HYDRANT	EA	4	\$175.00	\$700.00	\$300.00	\$1,200.00	\$500.00	\$2,000.00
	D12	D12	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6-inch)	EA	1	\$1,700.00	\$1,700.00	\$1,200.00	\$1,200.00	\$1,950.00	\$1,950.00
	D13	D13	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (8-inch)	EA	5	\$2,450.00	\$12,250.00	\$1,750.00	\$8,750.00	\$2,500.00	\$12,500.00
	D14	D14	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (12-inch)	EA	5	\$4,200.00	\$21,000.00	\$3,200.00	\$16,000.00	\$4,500.00	\$22,500.00
	D15	D15	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	39	\$2,100.00	\$81,900.00	\$1,800.00	\$70,200.00	\$2,800.00	\$109,200.00
	D16	D16	10.08 REMOVE EXISTING CURB STOP/METER CROCK	EA	2	\$150.00	\$300.00	\$500.00	\$1,000.00	\$350.00	\$700.00
	D17	D17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(49 Widrig Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D18	D18	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(53 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D19	D19	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(45 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D20	D20	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(12 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D21	D21	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(39 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D22	D22	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(35A Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D23	D23	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(35 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D24	D24	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(31 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D25	D25	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(40 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D26	D26	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(38 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D27	D27	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(36 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D28	D28	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(11 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D29	D29	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(26 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D30	D30	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(22 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D31	D31	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(20 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D32	D32	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(16 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D33	D33	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(14 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D34	D34	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(2 Amelia Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00

	D35	D35	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(94 Home Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D36	D36	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(92 Home Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D37	D37	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(90 Home Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D38	D38	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(88 Home Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D39	D39	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(84 Home Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D40	D40	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(82 Home Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D41	D41	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(89 Home Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D42	D42	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(95 Home Street) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	D43	D43	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	4	\$2,580.00	\$10,320.00	\$1,800.00	\$7,200.00	\$3,000.00	\$12,000.00
	D44	D44	11.06 ANCHORING TEE AND BLOCK (12-inch x 12-inch x 12-inch)	EA	2	\$980.00	\$1,960.00	\$800.00	\$1,600.00	\$1,950.00	\$3,900.00
	D45	D45	11.06 ANCHORING TEE AND BLOCK (12-inch x 12-inch x 6-inch)	EA	1	\$960.00	\$960.00	\$390.00	\$390.00	\$1,650.00	\$1,650.00
	D46	D46	11.06 ANCHORING TEE AND BLOCK (8-inch x 8-inch x 8-inch)	EA	4	\$700.00	\$2,800.00	\$280.00	\$1,120.00	\$1,200.00	\$4,800.00
	D47	D47	11.09 REDUCER (12-inch x 10-inch)	EA	1	\$580.00	\$580.00	\$200.00	\$200.00	\$1,100.00	\$1,100.00
	D48	D48	11.09 REDUCER (12-inch x 8-inch)	EA	1	\$580.00	\$580.00	\$190.00	\$190.00	\$1,000.00	\$1,000.00
	D49	D49	11.09 REDUCER (12-inch x 4-inch)	EA	1	\$580.00	\$580.00	\$200.00	\$200.00	\$950.00	\$950.00
	D50	D50	11.09 REDUCER (8-inch x 6-inch)	EA	1	\$480.00	\$480.00	\$110.00	\$110.00	\$425.00	\$425.00
	D51	D51	11.15 SLEEVE OUT EXISTING TEE (12-INCH x 8-inch)	EA	1	\$1,500.00	\$1,500.00	\$10,300.00	\$10,300.00	\$5,500.00	\$5,500.00
	D52	D52	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	2828	\$21.00	\$59,388.00	\$21.00	\$59,388.00	\$21.00	\$59,388.00
	D53	D53	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	654	\$60.00	\$39,240.00	\$73.00	\$47,742.00	\$75.00	\$49,050.00
	D54	D54	12.11 CONCRETE CURBING	LF	20	\$90.00	\$1,800.00	\$75.00	\$1,500.00	\$75.00	\$1,500.00
	D55	D55	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$2,500.00	\$2,500.00	\$500.00	\$500.00	\$500.00	\$500.00
Section E - Grandview Avenue (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)							\$309,987.00		\$372,939.00		\$377,075.00
	E1	E1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (8-inch). (Detail 103, 103a, 104, 104a, 110)	LF	768	\$172.00	\$132,096.00	\$208.00	\$159,744.00	\$220.00	\$168,960.00
	E2	E2	6.02.B CLASS 50 or 52 DUCTILE IRON PIPE (8-inch) - RESTRAINED JOINT	LF	250	\$172.00	\$43,000.00	\$218.00	\$54,500.00	\$245.00	\$61,250.00
	E3	E3	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch)	EA	1	\$4,700.00	\$4,700.00	\$5,500.00	\$5,500.00	\$4,000.00	\$4,000.00
	E4	E4	7.01 CONNECT TO EXISTING MAIN/TIE-IN (10-inch)	EA	1	\$5,300.00	\$5,300.00	\$10,300.00	\$10,300.00	\$5,500.00	\$5,500.00
	E5	E5	8.01 INSTALL FIRE HYDRANT ASSEMBLY	EA	2	\$7,800.00	\$15,600.00	\$9,250.00	\$18,500.00	\$7,500.00	\$15,000.00
	E6	E6	8.03 REMOVE FIRE HYDRANT	EA	1	\$200.00	\$200.00	\$300.00	\$300.00	\$500.00	\$500.00
	E7	E7	10.02 REPLACE SERVICE LINE AND INSTALL WATER METER SETTING (3/4") (Service line materials provided by NKWD)	EA	13	\$2,100.00	\$27,300.00	\$1,800.00	\$23,400.00	\$2,800.00	\$36,400.00
	E8	E8	10.08 REMOVE EXISTING CURB STOP/METER CROCK	EA	1	\$100.00	\$100.00	\$500.00	\$500.00	\$350.00	\$350.00
	E9	E9	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(92 Grandview Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E10	E10	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(79 Grandview Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E11	E11	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(68 Grandview Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E12	E12	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(47 Grandview Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E13	E13	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(43 Grandview Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E14	E14	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(35 Grandview Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E15	E15	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(46 Grandview Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E16	E16	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(24 Grandview Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E17	E17	10.10 PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT(14 Grandview Avenue) - **This Line Item Unit Price cannot be less than \$1,500.00	EA	1	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
	E18	E18	11.05 AIR RELEASE VALVE (ARV and service line materials provided by NKWD)	EA	1	\$2,600.00	\$2,600.00	\$1,800.00	\$1,800.00	\$3,000.00	\$3,000.00
	E19	E19	11.06 ANCHORING TEE AND BLOCK (8-inch x 8-inch x 6-inch)	EA	2	\$700.00	\$1,400.00	\$410.00	\$820.00	\$1,000.00	\$2,000.00
	E20	E20	11.09 REDUCER (10-inch x 8-inch)	EA	1	\$700.00	\$700.00	\$150.00	\$150.00	\$800.00	\$800.00
	E21	E21	11.09 REDUCER (8-inch x 6-inch)	EA	1	\$500.00	\$500.00	\$110.00	\$110.00	\$425.00	\$425.00
	E22	E22	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	1215	\$21.00	\$25,515.00	\$21.00	\$25,515.00	\$21.00	\$25,515.00
	E23	E23	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	320	\$60.00	\$19,200.00	\$73.00	\$23,360.00	\$75.00	\$24,000.00
	E24	E24	12.09 CONCRETE PAVEMENT (8-inch minimum) FULL PANEL RESTORATION	SY	123	\$112.00	\$13,776.00	\$280.00	\$34,440.00	\$125.00	\$15,375.00
	E25	E25	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$4,500.00	\$4,500.00	\$500.00	\$500.00	\$500.00	\$500.00
Section F - Clifton Avenue (Note : See section 01025 Measurement and Payment for bid form definitions for all sections.)							\$61,099.95		\$106,437.00		\$97,512.00
	F1	F1	6.01 CLASS 50 or 52 DUCTILE IRON PIPE (6-inch). (Detail 103, 103a, 104, 104a, 110)	LF	341	\$136.00	\$46,376.00	\$200.00	\$68,200.00	\$210.00	\$71,610.00
	F2	F2	7.01 CONNECT TO EXISTING MAIN/TIE-IN (6-inch)	EA	2	\$1,800.00	\$3,600.00	\$5,500.00	\$11,000.00	\$4,000.00	\$8,000.00
	F3	F3	9.01 DUCTILE IRON RESILIENT SEATED GATE VALVE (6-inch)	EA	3	\$1,550.00	\$4,650.00	\$1,200.00	\$3,600.00	\$1,950.00	\$5,850.00
	F4	F4	11.06 ANCHORING TEE AND BLOCK (6-inch x 6-inch x 6-inch)	EA	1	\$499.95	\$499.95	\$230.00	\$230.00	\$875.00	\$875.00
	F5	F5	11.15 SLEEVE OUT EXISTING TEE (6-INCH)	EA	1	\$900.00	\$900.00	\$5,500.00	\$5,500.00	\$3,750.00	\$3,750.00
	F6	F6	12.05 ASPHALTIC CONCRETE MILLING AND PAVING	SY	62	\$27.00	\$1,674.00	\$21.00	\$1,302.00	\$21.00	\$1,302.00
	F7	F7	12.09 CONCRETE PAVEMENT (8-inch minimum) TRENCH RESTORATION	SY	10	\$60.00	\$600.00	\$73.00	\$730.00	\$75.00	\$750.00
	F8	F8	12.11 CONCRETE CURBING	LF	5	\$100.00	\$500.00	\$75.00	\$375.00	\$75.00	\$375.00
	F9	F9	12.14 BEST MANAGEMENT PRACTICE	LS	1	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00
	F10	F10	12.15 CONCRETE KEY BLOCK	EA	6	\$300.00	\$1,800.00	\$2,500.00	\$15,000.00	\$750.00	\$4,500.00
Section G - Additional Items							\$7,500.00		\$18,000.00		\$15,000.00
	G1	G1	10.10B PRIVATE SIDE LEAD SERVICE LINE REPLACEMENT - Pressure Regulator & Expansion Tank Additive.	EA	30	\$250.00	\$7,500.00	\$600.00	\$18,000.00	\$500.00	\$15,000.00
Base Bid Total:							\$2,269,528.65		\$2,465,365.00		\$2,665,746.00



EXHIBIT C-2

ENGINEER'S RECOMMENDATION OF AWARD



NEWPORT WMR – PHASE 3

March 12th, 2025

Mr. Kyle Ryan
Northern Kentucky Water District
2835 Crescent Springs Road
Erlanger, KY 41018

**RE: Newport Phase 3 Water Main Replacement Project
 Bid Recommendation
 City of Newport, Kenton County, Kentucky**

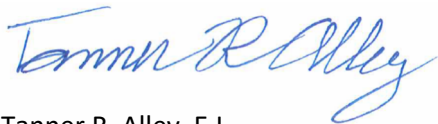
Kyle,

We have reviewed the bids received for the above-mentioned project in the City of Newport. As indicated on the provided bid tabulation, Lonkard Construction Company is the low bidder of the three (3) bids received at a price of \$3,799,234.80. This cost is approximately 16% less than our engineer's estimate of \$4,541,150.00.

Based on the Water District's past project experience with Lonkard Construction Company, it is our recommendation that they be awarded the contract for Phase 3 of the Newport Water Main Replacement Project.

Please review our recommendation, and contact me to discuss any questions you may have.

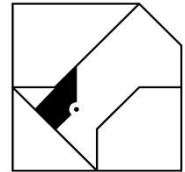
Sincerely,

A handwritten signature in blue ink that reads 'Tanner R. Alley'.

Tanner R. Alley, E.I.
Project Civil Engineer
859-415-1624
tanneralley@bayerbecker.com



NEWPORT WMR – PHASE 4



CARDINAL

**ENGINEERING
LAND SURVEYING**

ONE MOOCK ROAD WILDER, KENTUCKY 41071
PHONE: (859) 581-9600 FAX: (859) 581-9636
www.cardinalengineering.net

March 7, 2025

Mr. Steve Broering
Northern Kentucky Water District
2835 Crescent Springs Road
P.O. Box 18640
Erlanger, KY 41018-0640

RE: Newport 2022 Water Main Replacement Project
Phase 4 of WX21037311
Project Contract Award Recommendation

Dear Steve:

After reviewing the bid results for the above captioned project, I confirmed that the lowest bidder was Rector Excavating, Inc. at \$2,269,528.65. Over the past several years, the low bidder has performed well on a recent project that Cardinal designed, Rogers Road. They also recently were awarded the East Low Gap project.

In addition, it is my understanding that Rector Excavating has performed adequately on multiple projects for the District over the past several years.

Based upon the above information, we recommend awarding the contract to their firm (provided that all bonding and District requirements have been addressed).

Should you have any questions, please contact me.

Best regards,

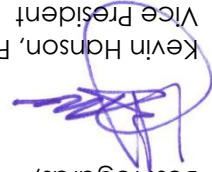

Kevin Hanson, P.E.
Vice President



EXHIBIT C-3

BOARD MEETING MINUTES

**Northern Kentucky Water District
Board of Commissioners
Regular Meeting
March 20, 2025**

A regular meeting of the Board of Commissioners of the Northern Kentucky Water District was held on March 20, 2025 at the District's facility located at 2835 Crescent Springs Road in Erlanger, Kentucky and via video teleconference in accordance with KRS 61.826. All Commissioners were present. Also present were Lindsey Rehtin, Stacey Kampsen, John Moor, Richard Harrison, Tom Edge, Chris Bryant, Stacey Hoeter, Nathan Baker, Canaan Harrison, Kyle Ryan, Barry Miller, Bill Wulfeck, Sara Sgantis, and Daniel Doos (Inflotec).

Commissioner Lange called the meeting to order at 12:00 p.m., and Chris Bryant led the pledge of allegiance.

The Commissioners reviewed correspondence received and articles published since the last regular Board meeting on February 20, 2025.

On motion of Commissioner Winnike, seconded by Commissioner Wagner, the Board unanimously approved the minutes for the regular Board meeting held on February 20, 2025.

The Board was provided a copy of the District's check registers, which included the check number, check date, payee, check amount and description of the reason for each payment, detailing the District's expenditures for the period February 1, 2025 through February 28, 2025. On motion of Commissioner Macke, seconded by Commissioner Winnike, and after discussion, the Board unanimously approved the expenditures of the District for the month of February 2025.

On motion of Commissioner Wagner, seconded by Commissioner Holland, the Board unanimously accepted the December 31, 2024, PSC Annual Report as presented.

On motion of Commissioner Macke, seconded by Commissioner Winnike, the Board unanimously accepted the bids for Distribution Inventory Materials and authorized the purchase of Distribution Inventory Materials from all vendors listed in the bid summary.

On motion of Commissioner Winnike, seconded by Commissioner Wagner, the Board unanimously accepted the bid of \$708,544.00 from Rector Excavating, awarded a contract for the General Drive and Pickett Drive Water Main Replacement project with a total project budget of \$850,000, and authorized staff to execute the applicable contract documents.

On motion of Commissioner Winnike, seconded by Commissioner Wagner, the Board unanimously accepted the bid of \$327,160.00 from Larry Smith Inc., awarded a contract for the Marmil Circle and Marylou Court Water Main Replacement project with a total project budget of \$390,000, and authorized staff to execute the applicable contract documents.

On motion of Commissioner Wagner, seconded by Commissioner Macke, the Board unanimously accepted the bid of \$1,067,850.00 from Howell Contractors, awarded a contract for the South Grand Avenue Water Main Replacement project with a total project budget of \$1,255,000, and authorized staff to execute the applicable contract documents.

On motion of Commissioner Winnike, seconded by Commissioner Wagner, the Board unanimously accepted the bid of \$3,799,234.80 from Lonkard Construction Company, awarded a contract for the Newport Water Main Replacement Phase 3 project with a total project budget of \$4,235,000, and authorized staff to execute the applicable contract documents.

On motion of Commissioner Wagner, seconded by Commissioner Winnike, the Board unanimously accepted the bid of \$2,269,528.65 from Rector Excavating, Inc., awarded a contract for the Newport Water Main Replacement Phase 4 project with a total project budget of \$2,550,000, and authorized staff to execute the applicable contract documents.

On motion of Commissioner Winnike, seconded by Commissioner Holland, the Board unanimously accepted the bids of Core and Main, CITCO Water, Mueller Systems, Ferguson Waterworks, and Neptune Equipment and awarded a contract for a period of one year with an option to renew the contract for an additional one-year term at staff's discretion.

On motion of Commissioner Wagner, seconded by Commissioner Winnike, the Board unanimously authorized staff to execute an engineering services agreement, and any related documents, with Jones & Henry Engineers, LTD. to design the Dudley 1040 Pump Station Improvements.

The Board reviewed the District's financial reports and Department reports.

Vice President of Water Quality & Production John Moor reviewed current water production quantities.

Vice President of Engineering & Distribution Richard Harrison reviewed with the Board the status of on-going projects within the 2025 5-Year Capital Budget, including expenses incurred to date and provided an update on main breaks including current water loss of 15.22%.

General Counsel, Director of Compliance, Communications and Regulatory Affairs Tom Edge provided the Board an update on ongoing PSC cases, and 2025 HB 16.

Other matters of a general nature were discussed.

The meeting was adjourned at 1:10 p.m.

CHAIRMAN

SECRETARY



EXHIBIT D

PROJECT FINANCE INFORMATION



NEWPORT WMR – PHASE 3

Exhibit D

Customers Added and Revenue Effect: There are no new customers anticipated.

Debt Issuance and Source of Debt: The Newport Water Main Replacement Project has a total budget of \$16,000,000 and will be bid and constructed as 4 separate phases. The total budget is made up of \$1,000,000 in Cleaner Water Program (CWP) grant funds appropriated by the Kentucky Legislature in 2021 – Senate Bill 36; 2) \$2,403,872 in CWP grant funds appropriated by the Kentucky Legislature in 2022 – House Bill 1; 3) \$340,387 in funds from KIA Cleaner Water Grant Increase Request (up to 10% of original grant amount); 4) \$3,200,000 in Campbell County ARPA funds; and 5) \$4,000,000 in SRF Loan (\$1,598,681 of which is principal forgiveness). The remaining \$5,055,741 will be paid from a future Bond Anticipation Note as part of the District's Five-Year Capital Budget, PSC No. 285 "Newport Water Main Replacement".

The budget for Phase 3 of the Newport Water Main Replacement is \$4,235,000 which includes construction cost, engineering, materials, and contingencies. A summary of the Phase 3 costs is provided below:

o	Engineering	\$ 66,390.00
o	Contractor's Bid	\$ 3,799,234.80
o	Misc. & Contingencies	\$ 369,375.20
	Phase 1 Total Cost	\$ 4,235,000.00

USoA Accounts: The anticipated amounts for the Phase 3 cost of \$4,235,000 will fall under the following Uniform System of Accounts Codes:

Code 331 "Transmission & Distribution Mains"	\$ 3,099,500
Code 333 "Services"	\$ 703,875
Code 334 "Meter & Meter Installation "	\$ 366,375
Code 335 "Hydrants"	\$ 65,250

Additional Costs and O&M: No additional operating and maintenance costs are anticipated from the project. NKWD further clarifies that it does not anticipate that this project will result in an increase in the costs to operate NKWD's system because the project is for the replacement of distribution lines already in existence. No additional pumping stations are proposed, and the replacement of the lines is not expected to result in additional pumping costs, nor an increased use of electricity or chemicals. It is possible that the project will result in a decrease in operation and maintenance costs as the number of line breaks is reduced. However, any attempt to quantify savings that may be experienced as a result of this project would be speculative at this point.

Depreciation and Debt Service: Annual depreciation and debt service after construction are as follows:

Depreciation (Phase 3 only):

- \$49,592.00/year over 62.5 years for Code 331 “Transmission & Distribution Mains”
- \$17,596.88/year over 40 years for Code 333 “Services”
- \$8,620.59/year over 42.5 years for Code 334 “Meter & Meter Installation”
- \$1,305.00/year over 50 years for Code 335 “Hydrants”

Annual Debt Service for total project (all 4 phases):

- \$323,627.90 over 25 years (conventional 4.0% loan).
- \$150,423.59 over 20 years for 2.25% State Revolving Fund Loan



NEWPORT WMR – PHASE 4

Exhibit D

Customers Added and Revenue Effect: There are no new customers anticipated.

Debt Issuance and Source of Debt: The Newport Water Main Replacement Project has a total budget of \$16,000,000 and will be bid and constructed as 4 separate phases. The total budget is made up of \$1,000,000 in Cleaner Water Program (CWP) grant funds appropriated by the Kentucky Legislature in 2021 – Senate Bill 36; 2) \$2,403,872 in CWP grant funds appropriated by the Kentucky Legislature in 2022 – House Bill 1; 3) \$340,387 in funds from KIA Cleaner Water Grant Increase Request (up to 10% of original grant amount); 4) \$3,200,000 in Campbell County ARPA funds; and 5) \$4,000,000 in SRF Loan (\$1,598,681 of which is principal forgiveness). The remaining \$5,055,741 will be paid from a future Bond Anticipation Note as part of the District's Five-Year Capital Budget, PSC No. 285 "Newport Water Main Replacement".

The budget for Phase 4 of the Newport Water Main Replacement is \$2,550,000 which includes construction cost, engineering, materials, and contingencies. A summary of the Phase 4 costs is provided below:

o Engineering	\$ 53,235.00
o Contractor's Bid	\$ 2,269,528.65
o Misc. & Contingencies	\$ 227,236.35
Phase 4 Total Cost	\$ 2,550,000.00

USoA Accounts: The anticipated amounts for the Phase 4 cost of \$2,550,000 will fall under the following Uniform System of Accounts Codes:

Code 331 "Transmission & Distribution Mains"	\$ 1,971,850
Code 333 "Services"	\$ 340,875
Code 334 "Meter & Meter Installation "	\$ 159,375
Code 335 "Hydrants"	\$ 77,900

Additional Costs and O&M: No additional operating and maintenance costs are anticipated from the project. NKWD further clarifies that it does not anticipate that this project will result in an increase in the costs to operate NKWD's system because the project is for the replacement of distribution lines already in existence. No additional pumping stations are proposed, and the replacement of the lines is not expected to result in additional pumping costs, nor an increased use of electricity or chemicals. It is possible that the project will result in a decrease in operation and maintenance costs as the number of line breaks is reduced. However, any attempt to quantify savings that may be experienced as a result of this project would be speculative at this point.

Depreciation and Debt Service: Annual depreciation and debt service after construction are as follows:

Depreciation (Phase 4 only):

- \$31,549.60/year over 62.5 years for Code 331 “Transmission & Distribution Mains”
- \$8,521.88/year over 40 years for Code 333 “Services”
- \$3,750.00/year over 42.5 years for Code 334 “Meter & Meter Installation”
- \$1,558.00/year over 50 years for Code 335 “Hydrants”

Annual Debt Service for total project (all 4 phases):

- \$323,627.90 over 25 years (conventional 4.0% loan).
- \$150,423.59 over 20 years for 2.25% State Revolving Fund Loan



EXHIBIT E

MORTGAGES, BONDS, NOTES, AND OTHER INDEBTEDNESS



EXHIBIT E-1

**SCHEDULE OF MORTGAGES, BONDS, NOTES, AND OTHER
INDEBTEDNESS**



Mortgages, Bonds, Notes and Other Indebtedness

As of: 12/31/2024

MORTGAGES								
Mortgage Identification	Brief Description	Date of Execution	Name of Mortgagor	Name of Mortgagee or Trustee	Amount of Indebtedness authorized to be secured	Amount of Indebtedness Actually Secured	Sinking Fund Provisions	Amount Outstanding 12/31/2024
NONE								0
								<u>\$ -</u>

BONDS											
Bond Identification	Amount Authorized	Amount Issued	Name of Public Utility	Description of Each Class	Date of Issue	Face Value	Rate of Interest	Date of Maturity	How Secured	Amount of Interest Paid During Last Fiscal Year	Amount Outstanding 12/31/2024
2013A	28,165,000	26,400,000	NKWD	n/a	6/27/2013	26,400,000	4.250 - 5.000%	2/1/2038	Pledge of Future Revenues	803,650	18,250,000
2013B	26,570,000	24,120,000	NKWD	n/a	9/25/2013	24,120,000	5.000 - 4.000%	2/1/2028	Pledge of Future Revenues	347,300	6,985,000
2014A	1,733,000	1,733,000	NKWD	n/a	12/11/2017	1,733,000	2.750%	2/1/2057	Pledge of Future Revenues	44,227	1,593,500
2014B	16,965,000	15,805,000	NKWD	n/a	12/23/2014	15,805,000	3.125 - 4.000%	2/1/2029	Pledge of Future Revenues	101,663	2,765,000
2016A	47,335,000	41,905,000	NKWD	n/a	11/22/2016	41,905,000	5.000 - 3.000%	2/1/2031	Pledge of Future Revenues	972,525	22,980,000
2019	19,600,000	17,845,000	NKWD	n/a	9/26/2019	17,845,000	3.000 - 5.000%	2/1/2044	Pledge of Future Revenues	524,200	15,395,000
2020	25,195,000	22,325,000	NKWD	n/a	11/5/2020	22,325,000	5.000 - 2.000%	2/1/2035	Pledge of Future Revenues	630,325	17,555,000
2021B	32,395,000	27,730,000	NKWD	n/a	12/14/2021	27,730,000	4.000%	2/1/2027	Pledge of Future Revenues	643,700	13,755,000
2023A	27,335,000	17,615,000	NKWD	n/a	1/26/2023	17,615,000	5.000 - 4.125%	2/1/2048	Pledge of Future Revenues	744,531	17,230,000
										<u>\$ 116,508,500.00</u>	



Mortgages, Bonds, Notes and Other Indebtedness
As of: 12/31/2024

NOTES							
Note Identification	Date of Issue	Amount	Date of Maturity	Rate of Interest	In Whose Favor	Amount of Interest Paid During Last Fiscal Year	Amount Outstanding 12/31/2024
KIA Loan F08-07	11/1/2008	4,000,000	12/1/2032	1.2000%	KIA	23,106	1,696,321
KIA Loan F09-02	6/1/2010	24,000,000	6/1/2033	2.2500%	KIA	276,493	11,374,984
KIA Loan F13-012	8/1/2014	8,000,000	6/1/2044	2.0000%	KIA	113,849	7,832,097
KIA Loan F14-015	6/1/2015	3,545,910	6/1/2038	2.0000%	KIA	52,991	2,525,981
KIA Loan F15-011	3/1/2016	3,535,094	6/1/2038	2.0000%	KIA	52,829	2,518,276
KIA Loan B15-003	7/1/2016	1,392,195	12/1/2037	0.9500%	KIA	9,314	929,478
KIA Loan F16-027*	1/1/2019	4,000,000	N/A	2.0000%	KIA	31,235	1,558,034
KIA Loan F20-044*	2/16/2023	8,000,000	N/A	1.7500%	KIA	41,951	3,935,000
KIA Loan F23-007S**	N/A	4,000,000	N/A	2.5500%	KIA	-	-
						\$	<u><u>32,370,171</u></u>

*not yet closed

**pending approval in PSC Case 2025-00007

OTHER INDEBTEDNESS					
Indebtedness Identification	Classes	Description of Security	Brief Statement of Devolution or assumption of a portion of the indebtedness upon or by person or corporation if the original liability has been transferred	Interest Paid During Last Fiscal Year	Amount Outstanding 12/31/2024
NONE					0
				\$	<u><u>-</u></u>



EXHIBIT E-2

CONDITIONAL COMMITMENT LETTER STATE REVOLVING FUND LOAN F23-007S



KENTUCKY INFRASTRUCTURE AUTHORITY

Andy Beshear
Governor

100 Airport Road
Frankfort, Kentucky 40601
(502) 573-0260
kia.ky.gov

Sandy Williams
Executive Director

October 16, 2023

Ms. Lindsey Rechtin, President/CEO
Northern Kentucky Water District
PO Box 18640
Erlanger, KY 41018

KENTUCKY INFRASTRUCTURE AUTHORITY FEDERALLY ASSISTED DRINKING WATER REVOLVING LOAN FUND CONDITIONAL COMMITMENT LETTER (F23-007S)

Dear Ms Rechtin:

The Kentucky Infrastructure Authority ("the Authority") commends your efforts to improve public service facilities in your community. On May 4, 2023, the Authority approved your loan for the Water Main Replacement - Newport and The Ovation project subject to the conditions stated in Attachment A to this letter. The total cost of the project shall not exceed \$8,855,000, without prior authorization of the Authority, of which the Authority loan shall provide \$4,000,000 of the funding. Other anticipated funding for the project is reflected in Attachment B. The final loan amount will be equal to the Authority's portion of estimated project cost applied to the actual project cost. Attachment B incorporated herein by reference fully describes the project.

An Assistance Agreement will be executed between the Authority and the Northern Kentucky Water District upon satisfactory performance of the conditions set forth in Attachment A. You must meet the conditions set forth in Attachment A and enter into an Assistance Agreement by October 16, 2024 (twelve months from the date of this letter). A one-time extension of up to six months may be granted for applicants that experience extenuating circumstances. Funds will be available for disbursement only after execution of the Assistance Agreement.



Please inform the Authority of any changes in your financing plan as soon as possible. We wish you every success for this project which will benefit both your community and the Commonwealth as a whole.

Sincerely,



Milward Dedman
Deputy Executive Director

Attachments

cc: Amy Stoffer, Northern Kentucky Water District

Please sign and return a copy of this letter indicating your acceptance of this commitment and its terms along with the completed "Transparency Act Reporting Information Form". Complete the attached "Authorization for Electronic Deposit of Vendor Payment Form" and the "ACH Debit Authorization Form" **and return to the US Bank address at the bottom of each form**. Also included are the "Legal Counsel Certification Letter" sample and the "Statement of Approval of Projections of Revenue and Expenses" for you to complete at the appropriate time. These forms and an SRF loan checklist guide can be found in Attachment C of this letter.

Accepted

Date

ATTACHMENT A

Conditions

Northern Kentucky Water District F23-007S

The Assistance Agreement and this commitment shall be subject, but not limited to, the following terms:

1. The Authority project loan shall not exceed \$4,000,000 without prior authorization.
2. Principal forgiveness of 40% of the assistance amount, not to exceed \$1,598,681 will be credited to the loan balance upon the advance of the loan funds from time to time from the Authority to the Borrower.
3. The loan shall bear interest at the rate of 2.25% per annum commencing with the first draw of funds.
4. Interest shall be payable on the unforgiven amount of actual funds received. The first payment shall be due on June 1, or December 1, immediately succeeding the date of the initial draw of funds, provided that if such June 1, or December 1, shall be less than three months since the date of the initial draw of funds, then the first interest payment date shall be the June 1, or December 1, which is at least six months from the date of the initial draw of funds. Interest payments will be due each six months thereafter until the loan is repaid. KIA requires the use of Automated Clearing House (ACH) debits for payment of all balances due on the loan. This will ensure that payments are credited timely to your account without the risk of incurring late payment fees. If the due date falls on a weekend or holiday your account will be debited on the next business day. Please complete and return the "ACH Debit Authorization" form in Attachment C of this letter to U.S. Bank for processing.
5. Full principal payments will commence on the appropriate June 1, or December 1, within twelve months from initiation of operation. Full payments will be due each six months thereafter until the loan is repaid.
6. The loan shall be repaid over a period not to exceed 20 years from the date of initiation of operation for the project.
7. A loan servicing fee of 0.30% of the outstanding loan balance shall be payable to the Authority as a part of each interest payment.
8. Loan funds will only be disbursed after execution of the Assistance Agreement as project costs are incurred.

9. The Authority loan funds must be expended within six months of the official date of initiation of operation.
10. Fund "F" loan funds may be considered to be federal funds. If more than \$750,000 of federal funds is disbursed during any one of Borrower's fiscal years, the Borrower is required to have a single or program-specific audit conducted for that year in accordance with 2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.
11. The Authority requires that an annual financial audit be provided for the life of the loan.
12. The final Assistance Agreement must be approved by ordinance or resolution, as applicable, of the city council or appropriate governing board.
13. The Borrower must maintain a 1.1 debt coverage ratio throughout the life of the KIA loan. All borrowers are subject to at least an annual financial review for compliance.

The following is a list of the standard conditions to be satisfied prior to execution of the Assistance Agreement or incorporated in the Assistance Agreement. Any required documentation must be submitted to the party designated.

1. The Authority to Award (bid) package must be submitted to the Division of Water for approval within 14 days of bid opening.
2. The Assistance Agreement must be executed within six (6) months from bid opening.
3. Documentation of final funding commitments from all parties other than the Authority as reflected in the credit analysis shall be provided prior to preparation of the Assistance Agreement and disbursement of the loan monies. Rejections of any anticipated project funding shall be immediately reported and may cause this loan to be subject to further consideration.
4. The loan must undergo review by the Capital Projects and Bond Oversight Committee of the Kentucky Legislature prior to the State's execution of the Assistance Agreement. The committee meets monthly. Any special conditions listed in Attachment B must be satisfied before the project is presented before the Committee.
5. Any required adjustment in utility service rates shall be adopted by ordinance, municipal order or resolution by the appropriate governing body of the Borrower. Public hearings as required by law shall be held prior to the

adoption of the service rate ordinance, order, or resolution. Any required approvals by the Kentucky Public Service Commission shall be obtained.

6. The Borrower must complete and return the "Authorization for Electronic Deposit of Borrower Payment" form in Attachment C of this letter to U.S. Bank.
7. The Borrower must provide documentation of Eclearinghouse Endorsement and Eclearinghouse Comments.
8. Prior to the project bid, an environmental review shall be conducted by the Division of Water for all construction projects receiving State Revolving Funds ("SRF") money.
9. Technical plans and specifications and a complete SRF specifications checklist shall be approved by the Division of Water prior to project bid.
10. All easements or purchases of land shall be completed prior to commencement of construction. Clear Site Certification of all land or easement acquisitions shall be provided to the Division of Water. DOW representatives shall be notified for attendance of the pre-construction conference.
11. Project changes or additions deviating from the original scope of work described in the Project Profile may require a new or amended environmental review and change order review before they can be included in the SRF loan project.
12. The Borrower must provide certification from their legal counsel stating that they have prepared construction specifications in accordance with all applicable state or federal wage rate laws, and that the procurement procedures, including those for construction, land, equipment and professional services that are a part of the project, are in compliance with applicable federal, state and local procurement laws.
13. The Borrower shall implement the Kentucky Uniform System of Accounting (KUSoA), or an alternative approved by the Authority and assure that rates and charges for services are based upon the cost of providing such service.
14. The Borrower shall comply with all Davis Bacon related monitoring and reporting and require all contractors to pay wages pursuant to applicable prevailing wage rates for all work relating to the subject Project.
15. The project shall comply with the reporting requirements of the Transparency Act, and shall complete the Transparency Act Reporting

Information Form in Attachment C of this letter and provide to the Authority no later than 30 days after the KIA Board approval date of your loan.

16. Based on the final “as-bid” project budget, the Borrower must provide satisfactory proof, based on then existing conditions, that the revenue projections in the attached descriptions are still obtainable and that the projections of operating expenses have not materially changed. The “as bid” project budget shall be reviewed and approved by the consulting engineer.
17. The Project shall comply with all federal requirements applicable to the Loan (including those imposed by P.L. 113-76, Consolidated Appropriations Act, 2014 (the “2014 Appropriations Act”) and / or the Build America, Buy America Act (“BABA”)) and related Program policy guidelines). The Borrower understands that, among other requirements, (a) all of the iron and steel products used in the Project are to be produced in the United States (“American Iron and Steel Requirement”) unless (i) the Borrower has requested and obtained a waiver from the Authority and the United States Environmental Protection Agency pertaining to the Project or (ii) the Authority has otherwise advised the Borrower in writing that the American Iron and Steel Requirement is not applicable to the Project; and / or (b) (i) all iron and steel items used in projects must be produced in the United States pursuant to BABA, (ii) all manufactured products must be produced in the United States, and (iii) all construction materials must be manufactured in the United States (“BABA Requirements”); unless (y) the Borrower has requested and obtained a waiver from the Authority and the United States Environmental Protection Agency pertaining to the Project or (z) the Authority has otherwise advised the Borrower in writing that the BABA Requirements are not applicable to the Project.
18. If the Project includes a private-side lead pipe replacement component, the Borrower must obtain a final inspection from the Division of Plumbing of the Department of Housing, Building and Construction.

ATTACHMENT B

Executive Summary and Credit Analysis

Northern Kentucky Water District
F23-007S

EXECUTIVE SUMMARY			Reviewer		John Brady
KENTUCKY INFRASTRUCTURE AUTHORITY			Date		May 4, 2023
FUND F, FEDERALLY ASSISTED DRINKING WATER			KIA Loan Number		F23-007S
REVOLVING LOAN FUND			WRIS Number		WX21037311
BORROWER		NORTHERN KENTUCKY WATER DISTRICT KENTON COUNTY			
BRIEF DESCRIPTION					
The Northern Kentucky Water District is requesting a Fund F loan in the amount of \$4,000,000 for the Newport and Ovation Water Main Replacement project. This project will involve the replacement of water mains located in the urban core of the District's service area in Newport including areas near the Ovation development site. Approximately 25,000 linear feet of water line will replace aging lines with a high incidence of breakage and low flows. The water mains will be upgraded to the minimum standard size to improve system capacity and redundancy. The overall project will reduce water main breaks, water loss, service disruptions, and limit the possibility of contaminants entering the system.					
PROJECT FINANCING		PROJECT BUDGET		RD Fee %	Actual %
Fund F Loan	\$4,000,000	Construction			\$7,650,000
CWP Grant - 21CWW025	1,000,000	Administrative Expenses			5,000
CWP Grant - 22CWW025	2,403,872	Eng - Design / Const	6.4%	2.4%	206,950
Local	1,451,128	Eng - Insp	3.1%	0.4%	32,300
		Contingency			960,750
TOTAL	\$8,855,000	TOTAL			\$8,855,000
REPAYMENT	Rate	2.25%	Est. Annual Payment		\$155,766
	Term	20 Years	1st Payment	6 Mo. after first draw	
PROFESSIONAL SERVICES	Bond Counsel	Rubin & Hays			
PROJECT SCHEDULE	Bid Opening	Feb-24			
	Construction Start	Mar-24			
	Construction Stop	Mar-26			
DEBT PER CUSTOMER	Existing	\$2,326			
	Proposed	\$1,509			
OTHER DEBT	See Attached				
RESIDENTIAL RATES		Users	Avg. Bill		
	Current	86,499	\$47.04	(for 4,000 gallons)	
REGIONAL COORDINATION	This project is consistent with regional planning recommendations.				
CASHFLOW	Cash Flow Before Debt Service	Debt Service	Cash Flow After Debt Service	Coverage Ratio	
Audited 2019	30,710,537	19,570,414	11,140,123	1.6	
Audited 2020	32,733,215	20,166,918	12,566,297	1.6	
Audited 2021	30,590,993	18,556,832	12,034,161	1.6	
Projected 2022	30,436,160	18,550,571	11,885,589	1.6	
Projected 2023	34,071,687	18,930,243	15,141,444	1.8	
Projected 2024	37,591,376	20,062,315	17,529,061	1.9	
Projected 2025	36,945,380	20,809,747	16,135,633	1.8	
Projected 2026	36,296,664	20,977,812	15,318,852	1.7	

NORTHERN KENTUCKY WATER DISTRICT
FINANCIAL SUMMARY (DECEMBER YEAR END)

	Audited	Audited	Audited	Projected	Projected	Projected	Projected	Projected
	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Balance Sheet								
Assets								
Current Assets	53,909,267	66,527,811	68,844,595	71,221,674	75,358,362	79,953,375	83,180,501	86,244,271
Other Assets	403,473,981	396,084,560	418,215,962	416,460,195	416,136,431	417,722,760	418,194,347	426,646,135
Total	<u>457,383,248</u>	<u>462,612,371</u>	<u>487,060,557</u>	<u>487,681,868</u>	<u>491,494,793</u>	<u>497,676,135</u>	<u>501,374,848</u>	<u>512,890,406</u>
Liabilities & Equity								
Current Liabilities	20,614,679	19,358,024	20,109,293	18,845,996	19,714,953	20,360,010	21,035,688	21,832,154
Long Term Liabilities	226,178,310	217,656,826	226,450,327	210,165,351	195,825,696	180,867,284	165,259,994	151,284,957
Total Liabilities	<u>246,792,989</u>	<u>237,014,850</u>	<u>246,559,620</u>	<u>229,011,347</u>	<u>215,540,649</u>	<u>201,227,294</u>	<u>186,295,682</u>	<u>173,117,111</u>
Net Assets	<u>210,590,259</u>	<u>225,597,521</u>	<u>240,500,937</u>	<u>258,670,521</u>	<u>275,954,144</u>	<u>296,448,841</u>	<u>315,079,166</u>	<u>339,773,295</u>
Cash Flow								
Revenues	57,567,894	60,751,656	60,075,322	60,075,322	64,322,148	68,495,362	68,495,362	68,495,362
Operating Expenses	28,738,889	28,706,549	29,965,655	30,656,151	31,267,450	31,920,975	32,566,971	33,215,687
Other Income	1,881,532	688,108	481,326	1,016,989	1,016,989	1,016,989	1,016,989	1,016,989
Cash Flow Before Debt Service	<u>30,710,537</u>	<u>32,733,215</u>	<u>30,590,993</u>	<u>30,436,160</u>	<u>34,071,687</u>	<u>37,591,376</u>	<u>36,945,380</u>	<u>36,296,664</u>
Debt Service								
Existing Debt Service	19,570,414	20,166,918	18,556,832	18,550,571	18,930,243	20,062,315	20,809,747	20,822,046
Proposed KIA Loan	0	0	0	0	0	0	0	155,766
Total Debt Service	<u>19,570,414</u>	<u>20,166,918</u>	<u>18,556,832</u>	<u>18,550,571</u>	<u>18,930,243</u>	<u>20,062,315</u>	<u>20,809,747</u>	<u>20,977,812</u>
Cash Flow After Debt Service	<u>11,140,123</u>	<u>12,566,297</u>	<u>12,034,161</u>	<u>11,885,589</u>	<u>15,141,444</u>	<u>17,529,061</u>	<u>16,135,633</u>	<u>15,318,852</u>
Ratios								
Current Ratio	2.6	3.4	3.4	3.8	3.8	3.9	4.0	4.0
Debt to Equity	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.5
Days Sales in Accounts Receivable	86.7	101.9	95.3	95.3	95.3	95.3	95.3	95.3
Months Operating Expenses in Unrestricted Cash	13.2	16.3	17.1	17.7	18.5	19.5	20.3	21.0
Debt Coverage Ratio	1.6	1.6	1.6	1.6	1.8	1.9	1.8	1.7

Reviewer: John Brady
Date: May 4, 2023
Loan Number: F23-007S

**KENTUCKY INFRASTRUCTURE AUTHORITY
DRINKING WATER STATE REVOLVING FUND (FUND F)
NORTHERN KENTUCKY WATER DISTRICT, KENTON COUNTY
PROJECT REVIEW
WX21037311**

I. PROJECT DESCRIPTION

The Northern Kentucky Water District (the District) is requesting a Fund F loan in the amount of \$4,000,000 for the Newport and Ovation Water Main Replacement project. This project will involve the replacement of water mains located in the urban core of the District's service area in Newport including areas near the Ovation development site. Approximately 25,000 linear feet of water line will replace aging lines with a high incidence of breakage and low flows. The water mains will be upgraded to the minimum standard size to improve system capacity and redundancy. The overall project will reduce water main breaks, water loss, service disruptions, and limit the possibility of contaminants entering the system.

The District currently serves 78,996 residential customers and 7,500 commercial and industrial customers. They provide wholesale service to Bullock Pen Water District, Walton Waterworks Department, and Pendleton County Water District #1 North.

II. PROJECT BUDGET

	Total
Construction	\$ 7,650,000
Administration Expenses	5,000
Engineering Fees - Design	206,950
Engineering Fees - Inspection	32,300
Contingency	960,750
Total	\$ 8,855,000

III. PROJECT FUNDING

	Amount	%
Fund F Loan	\$ 4,000,000	45%
CWP 1	1,000,000	11%
CWP 2	2,403,872	27%
Local	1,451,128	16%
Total	\$ 8,855,000	100%

IV. KIA DEBT SERVICE

Construction Loan	\$ 4,000,000
Less: Principal Forgiveness	<u>1,598,681</u>
Amortized Loan Amount	\$ 2,401,319
Interest Rate	2.25%
Loan Term (Years)	<u>20</u>
Estimated Annual Debt Service	\$ 149,763
Administrative Fee (0.25%)	<u>6,003</u>
Total Estimated Annual Debt Service	\$ 155,766

V. PROJECT SCHEDULE

Bid Opening	February 2024
Construction Start	March 2024
Construction Stop	March 2026

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

Customers	Current
Residential	78,996
Commercial/Industrial	7,500
Wholesale	<u>3</u>
Total	86,499

B) Rates

	Current	Prior
Date of Last Rate Increase	02/08/23	03/26/20
Monthly Service Charge	\$19.50	\$18.50
Quarterly Service Charge	42.85	40.50
First 1,500 CF (Per 100 CF)	<u>5.15</u>	<u>4.77</u>
Cost for 4,000 gallons (monthly)	\$47.04	\$44.01
Cost for 4,000 gallons (quarterly)	\$125.46	\$117.02
Increase %	7.2%	
Affordability Index (Rate/MHI)	0.8%	0.8%

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2016-2020, the Utility's service area population was 252,560 with a Median Household Income (MHI) of \$66,417. The MHI for the Commonwealth is \$52,238. The project will qualify for a 2.25% interest rate.

VIII. 2022 CAPITALIZATION GRANT EQUIVALENCIES

- 1) Green Project Reserve - The Drinking Water capitalization grant does not contain a "green" requirement.
- 2) Additional Subsidization – This project qualifies for additional subsidization. Principal forgiveness of \$1,598,681 will be deducted from the approved loan amount.

IX. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the years ended December 31, 2019 through December 31, 2021. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented.

HISTORY

Total revenues increased 4.4% from \$57.57 million in 2019 to \$60.08 million in 2021 due to an increase in water consumption. Operating expenses increased 4.3% from \$28.74 million to \$29.97 million during the same period due to salary increases and higher contractual services costs. The debt coverage ratio was 1.6 in 2019, 2020, and 2021.

The balance sheet reflects a current ratio of 3.4, a debt-to-equity ratio of 1.0, and 17.1 months of operating expenses in unrestricted cash. Days sales in accounts receivable are 95.3 as the District does the majority of its billing on a quarterly basis.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Revenues will increase 7.2% in 2023 and 6.6% in 2024 due to previously approved rate increases.
- 2) Operating expenses will increase 2% annually due to inflation.
- 3) Debt service coverage is 1.7 in 2026 when principal and interest repayments begin.

Based on the pro forma assumptions, the utility shows adequate cash flow to repay the KIA Fund F loan.

The District is regulated by the Public Service Commission (PSC) and will need to apply to the PSC, pursuant to KRS 278.300, for debt authorization for the \$4,000,000 loan and the District must receive a Certificate of Public Convenience and Necessity, pursuant to KRS 278.020.

REPLACEMENT RESERVE

The replacement reserve will be 5% (\$200,000 total) of the final amount borrowed (prior to principal forgiveness) to be funded annually (\$10,000 yearly) each December 1 for 20 years and maintained for the life of the loan.

X. DEBT OBLIGATIONS

	Outstanding	Maturity
2013A Revenue Bonds	\$20,890,000	2038
2013B Revenue Bonds	11,485,000	2028
2014B Revenue Bonds	4,210,000	2029
2016A Revenue Bonds	30,830,000	2031
2019 Revenue Bonds	16,855,000	2044
2020 Revenue Bonds	21,055,000	2035
2021B Revenue Bonds	27,730,000	2027
2023A Revenue Bonds	17,615,000	2049
RD Loan 91-03	1,679,500	2057
KIA Loan B15-003	1,131,429	2037
KIA Loan F08-07	2,298,344	2032
KIA Loan F09-02	14,951,862	2033
KIA Loan F14-015	3,011,088	2038
KIA Loan F15-011	3,001,904	2038
KIA Loan F13-012 (i.a.o. \$8,000,000)		TBD
KIA Loan F16-027 (i.a.o. \$4,000,000)		TBD
KIA Loan F20-044 (i.a.o. \$8,000,000)		TBD
Total	\$176,744,127	

XI. CONTACTS

Legal Applicant

Entity Name	Northern Kentucky Water District
Authorized Official	Lindsey Rechtin (President/CEO)
County	Kenton
Email	lrechtin@nkywater.org
Phone	(859) 426-2758
Address	PO Box 18640 Erlanger, KY 41018

Applicant Contact

Name	Stacey Kampsen
Organization	Northern Kentucky Water District
Email	skampsen@nkywater.org
Phone	(859) 426-2715
Address	PO Box 18640 Erlanger, KY 41018

Project Administrator

Name	Amy Stoffer
Organization	Northern Kentucky Water District
Email	astoffer@nkywater.org
Phone	(859) 426-2734
Address	2835 Crescent Springs Rd Erlanger, KY 41018

XII. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions.

ATTACHMENT C

Forms

Northern Kentucky Water District
F23-007S

SRF LOAN CONDITIONS CHECKLIST

Congratulations on receiving a conditional commitment of funding from the State Revolving Fund (SRF) Program. Borrowers will now be assigned a Compliance Analyst to help guide them through the rest of the loan process based on which Area Development District (ADD) they are located. Please submit all documents to one of the following contacts:

- Julie Bickers (Julie.Bickers@ky.gov, 502-892-3455): Purchase, Pennyrite, Green River, Barren River, Lake Cumberland, Big Sandy, Cumberland Valley, KY River
- Debbie Landrum (Debbie.Landrum@ky.gov, 502-892-3454): Lincoln Trail, KIPDA, Northern KY, Bluegrass, Buffalo Trace, Gateway, FIVCO

After all of the conditions of the Conditional Commitment Letter have been fulfilled, KIA will initiate the Assistance Agreement with the borrower. The Assistance Agreement must be fully executed before any funds may be disbursed. The following is a list of items needed to process your loan (forms can be found here <https://kia.ky.gov/FinancialAssistance/Pages/Forms.aspx>):

Before bid opening, submit the following items to the designated Compliance Analyst/DOW Contact:

Submit To:		
KIA	<input type="checkbox"/>	Conditional Commitment Letter (this letter is sent to the borrower via email shortly following KIA board approval and is to be signed by the authorizing official);
USBANK	<input type="checkbox"/>	Authorization for Electronic Deposit/Debit of Borrower Disbursements/ Payment (these forms are attached to the loan commitment letter sent after KIA board approval and are to be signed by the authorizing official and forwarded directly to US Bank via Email: KentuckyInfrastructureAuth@usbank.com)
KIA	<input type="checkbox"/>	Transparency Form (this form is attached to the loan commitment letter sent after KIA board approval)
DOW	<input type="checkbox"/>	Fiscal Sustainability Plan Certification and Cost and Effectiveness Certification (required for "A" loans only, prior to plans approval)
DOW	<input type="checkbox"/>	Environmental review (Kentucky Division of Water will review and is required prior to plans approval. KIA will need copy of approval letter)
DOW	<input type="checkbox"/>	Plans and specifications (Kentucky Division of Water will review and KIA will need copy of approval letter)
KIA	<input type="checkbox"/>	Proof of compliance with any special condition identified in the Conditional Commitment Letter (e.g. adopted ordinance)

After the project has opened bids, please submit the following items to the designated Compliance Analyst/DOW Contact. It is imperative that the remaining standard conditions are fulfilled by the deadlines set forth in the Conditional Commitment Letter.

Submit To:		
DOW	<input type="checkbox"/>	Authority to Award (ATA) Package , the Kentucky Division of Water will review and forward approval to KIA.
DOW	<input type="checkbox"/>	Davis-Bacon prevailing wage rates , the Kentucky Division of Water will review and forward approval to KIA.
KIA	<input type="checkbox"/>	Procurement and Wage Certification (KIA sends to borrower after bid opening.)
KIA	<input type="checkbox"/>	Certification of obtainable revenue projections (KIA sends to borrower after bid opening.)
DOW	<input type="checkbox"/>	Certification of clear site (DOW will forward to KIA.)
	<input type="checkbox"/>	Plans and specifications approval from the Kentucky Division of Water (DOW will send approval to KIA.)
KIA	<input type="checkbox"/>	Public Service Commission (PSC) approval , (CPCN and Authorization to Incur Debt) if applicable.

TRANSPARENCY ACT REPORTING INFORMATION FORM

CLEAN WATER STATE REVOLVING FUND AND DRINKING WATER STATE REVOLVING FUND

This form is required for projects funded in whole or in part from the Clean Water State Revolving Fund or the Drinking Water State Revolving Fund. This form is to be completed and returned with the signed Conditional Commitment Letter from the Kentucky Infrastructure Authority.

Borrower Information:

Name:	
Unique Entity ID (generated by SAM.gov)*:	
KIA Loan Number:	
Street Address	
City, State and Zip (Zip must include 4 digit extension)	
Federal Congressional District(s) of Borrower Utility Service Area:	

*If the Unique Entity ID provided above is registered under a different name than the recipient of funding, please provide the registration name below:

Unique Entity ID Name	
-----------------------	--

*If the recipient has not yet obtained a Unique Entity ID, please do so no later than 30 days after the KIA Board approval date of your loan request and provide notification to KIA of the number once issued.

Physical Location of Project (Primary Place of Performance)

Street Address	
City, State and Zip (Zip must include 4 digit extension)	
Federal Congressional District(s) of Project Location	

Reliance upon Federal Assistance (please answer the below questions Yes or No):

Did recipient receive 80% or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards) during the last fiscal year?	
Did recipient receive \$25 million or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards) during the last fiscal year?	
Does the public have access to compensation of senior executives of the recipient through periodic reports filed under Section 13A or 15D of the Securities Exchange Act of 1934 or Section 6104 of the Internal Revenue Code of 1986?	

Unique Entity ID Registration Information: <https://sam.gov>

KIA Loan # _____

ACH DEBIT AUTHORIZATION FORM

**AUTHORIZATION AGREEMENT FOR PRE-ARRANGED PAYMENTS
(DEBITS)**

The undersigned hereby authorizes U.S. Bank National Association Corporate Trust Department (“U.S. Bank”) to initiate debit entries to the Checking ☐ Savings ☐ (specify type) account indicated below at the bank named below:

BANK NAME _____ BRANCH _____
CITY _____ STATE _____ ZIP CODE _____
BANK TRANSIT/ABA NO. _____ ACCOUNT NO. _____

This authority is to remain in full force and effect until U.S. Bank has received written notification from the undersigned of its termination in such time and in such manner as to afford U.S. Bank a reasonable opportunity to act. The undersigned has the right to stop payment of a debit entry by reasonable prior written notification to U.S. Bank. After the above account has been charged, the undersigned has the right to have the amount of any erroneous debit immediately credited to its account by U.S. Bank up to 30 days following issuance of a statement.

NAME OF ENTITY: _____
ADDRESS _____
TAX IDENTIFICATION NUMBER: _____

By _____ Dated _____
Authorized Signer

Send to: U.S. Bank via Email

KentuckyInfrastructureAuth@usbank.com

Use for Loan Disbursements

KIA Loan # _____

ACH AUTHORIZATION FORM

AUTHORIZATION AGREEMENT FOR DISBURSEMENT PAYMENTS

The undersigned hereby authorizes U.S. Bank National Association Corporate Trust Department (“U.S. Bank”) to initiate debit entries to the Checking ☐ Savings ☐ (specify type) account indicated below at the bank named below:

BANK NAME _____ BRANCH _____
CITY _____ STATE _____ ZIP CODE _____
BANK TRANSIT/ABA NO. _____ ACCOUNT NO. _____

This authority is to remain in full force and effect until U.S. Bank has received written notification from the undersigned of its termination in such time and in such manner as to afford U.S. Bank a reasonable opportunity to act. The undersigned has the right to stop payment of a debit entry by reasonable prior written notification to U.S. Bank. After the above account has been charged, the undersigned has the right to have the amount of any erroneous debit immediately credited to its account by U.S. Bank up to 30 days following issuance of a statement.

NAME OF ENTITY: _____
ADDRESS _____
TAX IDENTIFICATION NUMBER: _____

By _____ Dated _____
Authorized Signer

Send to: U.S. Bank via Email

KentuckyInfrastructureAuth@usbank.com

**AUTHORIZATION FOR ELECTRONIC DEPOSIT
OF BORROWER PAYMENT
KENTUCKY INFRASTRUCTURE AUTHORITY
KIA Loan # _____**

Borrower Information:

Name: _____

Address: _____

City: _____ **State:** KY **Zip:** _____

Federal I.D. #: _____ **Telephone:** _____

Contact Name: _____

Email: _____

Financial Institution Information:

Bank Name: _____

Branch: _____ **Telephone:** _____

City: _____ **State:** KY **Zip:** _____

Transit / ABA No: _____

Account Name: _____

Account Number: _____

I, the undersigned, authorize payments directly to the account indicated above and to correct any errors which may occur from the transactions. I also authorize the Financial Institution to post these transactions to that account.

Signature: _____ **Date:** _____

Name Printed: _____ **Job Title:** _____

Send to: U.S. Bank via Email

KentuckyInfrastructureAuth@usbank.com

COMPLETE AFTER BID OPENING

STATEMENT OF APPROVAL OF PROJECTIONS OF REVENUE AND EXPENSES

Borrower Name: _____

Loan No.: _____

I hereby certify that the revenue projections in the attached descriptions are still obtainable and that projections of operating expenses have not materially changed based on the “as-bid” budget submitted for the Project.

Signed: _____

Borrower

Date

SAMPLE LETTER

[Letterhead of Counsel for Water Utility]

[Date]

Kentucky Infrastructure Authority
1024 Capital Center Drive, Suite 340
Frankfort, Kentucky 40601

RE: SRF Loan#
City of xxxxx

Ladies and Gentlemen:

The undersigned is an attorney at law duly admitted to the practice of law in the Commonwealth of Kentucky and is legal counsel to the XXXXXXXXXXXXX, hereinafter referred to as the "Water Utility ". I am familiar with the organization and existence of the Water Utility and the laws of the Commonwealth applicable thereto. Additionally I am familiar with the water project (the "Project") with respect to which the funding commitment by and between the Kentucky Infrastructure Authority ("Authority") and the Water Utility.

I have reviewed the commitment letter by and between the Authority and the Water Utility and the documentation regarding wage rates and procurement with respect to the Project.

Based upon my review I am of the opinion that:

The Water Utility has prepared construction specifications in accordance with all applicable federal wage rate laws and that the procurement procedures including those for construction, land, equipment and professional services that are a part of the project are in compliance with all applicable federal, state and local procurement laws.

Respectfully,



EXHIBIT E-3

CAMPBELL COUNTY ARPA RECIPIENT AGREEMENT

**CAMPBELL COUNTY FISCAL COURT
CAMPBELL COUNTY, KENTUCKY**

RESOLUTION R-14-24


**A RESOLUTION AUTHORIZING THE CAMPBELL COUNTY FISCAL COURT TO ENTER
INTO ARPA RECIPIENT AGREEMENT NUMBER ONE WITH THE NORTHERN KENTUCKY
WATER DISTRICT**

WHEREAS, the Northern Kentucky Water District has received Kentucky Infrastructure Authority funding to complete clean water projects in Campbell County; and

WHEREAS, the Campbell County Fiscal Court wishes to provide additional funding from the County's ARPA allocation in order to provide gap financing and scope expansion.

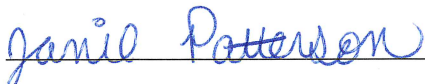
NOW, THEREFORE, BE IT RESOLVED that the Campbell County Fiscal Court is authorized to enter into ARPA Recipient Agreement Number One with the Northern Kentucky Water District.

Approved and adopted at a regular meeting of the Campbell County Fiscal Court on February 21, 2024.



STEVE PENDERY
Judge/Executive

Attest:



JANIE PATTERSON
Fiscal Court Clerk

ARPA RECIPIENT AGREEMENT

This **ARPA RECIPIENT AGREEMENT** ("Agreement") is entered into by and between the **Campbell County Fiscal Court**, 1098 Monmouth Street, Newport, Kentucky 41071 ("COUNTY") and **Northern Kentucky Water District**, 2835 Crescent Springs Road, Erlanger, Kentucky 41018 ("DISTRICT" or "RECIPIENT") (collectively referred to as "the Parties").

RECITALS

WHEREAS, on March 11, 2021, the American Rescue Plan Act (H.R. 1319), § 4001, ("ARPA") was signed into law providing federal funding relief for American workers, families, industries, and state and local governments; and

WHEREAS, on April 1, 2022, the United States Department of the Treasury (hereinafter "US TREASURY") published a Final Rule regarding the allowable usage of the Coronavirus State and Local Fiscal Recovery Funds (hereinafter "SLFRF") to be disseminated to local governments in accordance with the ARPA; and

WHEREAS, the COUNTY desires to allocate a portion of its share of the ARPA Fund allocation to the DISTRICT to support the development, planning and construction of water main extensions to serve unserved customers within Campbell County;

WHEREAS, under section 602(c)(3) of the ARPA, the COUNTY may transfer funds to a special purpose government entity such as DISTRICT, a duly organized water district pursuant to KRS Chapter 74; and

WHEREAS, in an effort to provide additional guidance regarding the eligible uses of SLFRF funds, the US TREASURY published a document containing answers to Frequently Asked Questions regarding Coronavirus State and Local Fiscal Recovery Funds as of July 27, 2022 (hereinafter "FAQ"); and

WHEREAS, the COUNTY and RECIPIENT desire to enter into this Agreement.

NOW, THEREFORE, in consideration of the foregoing recitals which are incorporated herein by reference, and the terms and conditions set forth below, the parties agree as follows:

1. EFFECTIVE DATE AND TERM

This Agreement shall commence when last executed by all parties and remain in effect no later than December 31, 2026, unless terminated earlier as outlined herein.

2. GRAND TOTAL SLFRF FUNDS TO BE DISSEMINATED TO RECIPIENT

The grand total subaward of SLFRF funds to be disseminated by the COUNTY to the RECIPIENT as part of this Agreement in the amount \$4,500,000.00. COUNTY authorizes its Judge Executive to grant and disburse additional SLFRF funds to RECIPIENT as deemed desirable.

Recipient may use SLFRF funds to cover eligible costs incurred from March 3, 2021 to December 31, 2024, as long as the obligations are incurred by December 31, 2024 and are expended by December 31, 2026. A cost is incurred "if the recipient has incurred an obligation with respect to such cost" by December 31, 2024. 31 CFR § 35.5(b).

3. LIMITATIONS REGARDING THE USE OF SLFRF FUNDS

The RECIPIENT shall ensure that all expenditures utilizing SLFRF funds received in accordance with this Agreement shall be limited to only those eligible services outlined in US TREASURY.

4. REPORTING REQUIREMENTS TO ENSURE COMPLIANCE WITH ARPA

In order to ensure compliance with the existing ARPA guidelines set forth by the US TREASURY – while also ensuring that all expenditures within the scope of this Agreement adhere to future guidelines that may be established by the US TREASURY during the term of this Agreement – the RECIPIENT, when requesting reimbursement for eligible ARPA expenditures, shall provide to the COUNTY a comprehensive and detailed list of all such expenditures on an itemized invoice, and shall also provide any backup documentation to support such expenditures. Said invoice must include a statement, signed by the RECIPIENT, indicating that all expenditures therein comport with the guidelines of the ARPA as set forth by the US TREASURY. Reimbursement requests shall be submitted to the COUNTY no more than once per month. No reimbursement requests may be submitted to the COUNTY after December 31, 2026.

5. TIMELINE REGARDING THE DISSEMINATION OF FUNDS TO RECIPIENT

Upon receipt of the RECIPIENT's complete reimbursement request, the COUNTY shall disseminate funds for all eligible ARPA expenditures therein within thirty (30) days of receipt of said reimbursement request. The dissemination of SLFRF funds shall only occur after the COUNTY reviews the RECIPIENT's reimbursement request to ensure that all expenditures detailed therein qualify for reimbursement in accordance with all published federal, state, and local guidance regarding the use of SLFRF funds as specified in the ARPA. All payments are subject to all applicable federal, state, and local laws regarding the governance of SLFRF funds within the ARPA.

6. EVOLUTION OF ARPA GUIDANCE FROM THE US TREASURY

The COUNTY may request additional information from the RECIPIENT, as needed, to meet any requirements or guidelines in effect or that may be otherwise established by the US TREASURY during the scope of this Agreement regarding the use of SLFRF funds.

7. TERMINATION

a. Termination for Cause. If the RECIPIENT fails to comply with the terms and conditions of this Agreement and any of the following conditions exist:

- i. The lack of compliance with the provisions of this Agreement is of such scope and nature that the COUNTY deems continuation of this Agreement to be substantially non-beneficial to the public interest;

ii. The RECIPIENT has failed to take satisfactory corrective action as directed by the COUNTY or its authorized representative within the time specified by the same; or

iii. The RECIPIENT has failed within the time specified by the COUNTY or its authorized representative to satisfactorily substantiate its compliance with the terms and conditions of this Agreement;

Following notice to the RECIPIENT of the COUNTY's intent to terminate this Agreement for cause, and after a reasonable opportunity to cure of not more than 15 calendar days, the COUNTY may pursue such remedies as are available by law, including, but not limited to, the termination of this Agreement in whole or in part, and thereupon shall notify in writing the RECIPIENT of the termination, the reasons for the termination, and the effective date of the termination. Upon termination, any outstanding SLFRF funds held by the RECIPIENT are subject to recoupment by the COUNTY in accordance with ARPA, the SLFRF program and this Agreement. Any costs resulting from obligations incurred by the RECIPIENT after termination of this Agreement are not allowable and will not be reimbursed by the COUNTY unless specifically authorized in writing by the COUNTY.

b. Termination for Convenience. The Agreement may be terminated for convenience, in whole or in part, as follows:

i. By the COUNTY with the consent of the RECIPIENT. The two parties shall agree upon the termination conditions, including the effective date and in the case of partial termination, the portion to be terminated, or

ii. By the RECIPIENT upon submitting written notification to the COUNTY. The written notification must set forth the reasons for the termination, the effective date, and in the case of partial termination, the portion to be terminated. However, in the case of a proposed partial termination, the COUNTY may terminate the Agreement and recoup all granted SLFRF funds in their entirety if the COUNTY determines that the remaining portion will not accomplish the purpose for which the award was made.

c. Termination for Withdrawal, Reduction, or Limitation of Funding. In the event funding is not received from the Federal Government, or is withdrawn, reduced, modified or limited in any way after the effective date of this Agreement and prior to its normal completion, the COUNTY may summarily terminate this Agreement as to the funds not received, reduced, modified or limited, notwithstanding any other termination provision in this Agreement. If the level of funding is reduced to such an extent that the COUNTY deems that the continuation of the Project covered by this Agreement is no longer in the best interest of the public, the COUNTY may summarily terminate this Agreement in whole notwithstanding any other termination provisions in this Agreement. Termination under this Section shall be effective upon receipt of written notice by the RECIPIENT or its representative.

8. INDEPENDENT CONTRACTOR

Each party under the Agreement shall be for all purposes an independent Contractor. Nothing

contained herein will be deemed to create an association, a partnership, a joint venture, or a relationship of principal and agent, or employer and employee between the parties. The RECIPIENT shall not be, or be deemed to be, or act or purport to act, as an employee, agent, or representative of the COUNTY for any purpose.

9. HOLD HARMLESS

To the extent authorized by Kentucky law, the RECIPIENT agrees to hold the COUNTY, its officers, officials, employees, agents, and volunteers harmless from and against any and all claims, injuries, damages, losses or expenses, including without limitation personal injury, bodily injury, sickness, disease, or death, or damage to or destruction of property, which are alleged or proven to be caused in whole or in part by an act or omission of the RECIPIENT, its officers, directors, employees, and/or agents relating to the RECIPIENT's performance or failure to perform under this Agreement. This section shall survive the expiration or termination of this Agreement.

10. COMPLIANCE WITH LAWS AND GUIDELINES

The RECIPIENT shall comply with all federal, state, and local laws and all requirements and published guidance set forth regarding the usage of any and all monies appropriated under the ARPA.

11. MAINTENANCE AND AUDIT OF RECORDS

The RECIPIENT shall maintain records, books, documents, and other materials relevant to its performance under this Agreement. These records shall be subject to inspection, review, and audit by the COUNTY or its designees, the SAO, and the US TREASURY for five (5) years following termination of this Agreement. If it is determined during the course of the audit that the RECIPIENT was reimbursed for unallowable costs under this Agreement or any, the RECIPIENT agrees to promptly reimburse the COUNTY for such payments upon request.

12. NOTICES

Any notices desired or required to be given hereunder shall be in writing, and shall be deemed received three (3) days after deposit with the US Postal Service (postage fully prepaid, certified mail, return receipt requested), and addressed to the party to which it is intended at its last known address, or to such person or address as either party shall designate to the other from time to time in writing forwarded in like manner:

RECIPIENT

Northern Kentucky Water District
Attn: Lindsey Rechtin, President/CEO
2835 Crescent Springs Road
P.O. Box 18640
Erlanger, Kentucky 41018

COUNTY

Campbell County Fiscal Court

Attn: Judge Executive Steve Pendery
1098 Monmouth Street
Newport, Kentucky 41071

13. IMPROPER INFLUENCE

Each party warrants that it did not and will not employ, retain, or contract with any person or entity on a contingent compensation basis for the purpose of seeking, obtaining, maintaining, or extending this Agreement. Each party agrees, warrants, and represents that no gratuity whatsoever has been or will be offered or conferred with a view towards obtaining, maintaining, or extending this Agreement.

14. CONFLICT OF INTEREST

The elected and appointed officials and employees of the parties shall not have any personal interest, direct or indirect, which gives rise to a conflict of interest.

15. TIME

Time is of the essence in this Agreement.

16. SURVIVAL

The provisions of this Agreement that by their sense and purpose should survive expiration or termination of the Agreement shall so survive. Those provisions include without limitation Indemnification and Maintenance and Audit of Records.

17. AMENDMENT

No amendment or modification to the Agreement shall be effective without prior written consent of the authorized representatives of the parties.

18. GOVERNING LAW; VENUE

The Agreement shall be governed in all respects by the laws of the Commonwealth of Kentucky, both as to interpretation and performance, without regard to conflicts of law or choice of law provisions. Any action arising out of or in conjunction with the Agreement may be instituted and maintained only in a court of competent jurisdiction in Campbell County, Kentucky.

19. NON-WAIVER

No failure on the part of the COUNTY to exercise, and no delay in exercising, any right hereunder shall operate as a waiver thereof, nor shall any single or partial exercise by the COUNTY of any right hereunder preclude any other or further exercise thereof or the exercise of any other right. The remedies herein provided are cumulative and not exclusive of any remedy available to the COUNTY at law or in equity.

20. BINDING EFFECT

This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors.

21. ASSIGNMENT

The RECIPIENT shall not assign or transfer any of its interests in or obligations under this Agreement without the prior written consent of the COUNTY.

22. ENTIRE AGREEMENT

This Agreement constitutes the entire agreement between the COUNTY and the RECIPIENT for the use of funds received under this Agreement and it supersedes all prior or contemporaneous communications and proposals, whether electronic, oral, or written between the parties with respect to this Agreement.

23. NO THIRD-PARTY BENEFICIARIES

Nothing herein shall or be deemed to create or confer any right, action, or benefit in, to, or on the part of any person or entity that is not a party to this Agreement. This provision shall not limit any obligation which either party has to the US TREASURY in connection with the use of ARPA funds, including the obligations to provide access to records and cooperate with audits as provided in this Agreement.

24. CIVIL RIGHTS COMPLIANCE

Recipients of Federal financial assistance from the US TREASURY are required to meet legal requirements relating to nondiscrimination and nondiscriminatory use of Federal funds. Those requirements include ensuring that entities receiving Federal financial assistance from the US TREASURY do not deny benefits or services, or otherwise discriminate on the basis of race, color, national origin (including limited English proficiency), disability, age, or sex (including sexual orientation and gender identity), in accordance with the following authorities: Title VI of the Civil Rights Act of 1964 (Title VI) Public Law 88-352, 42 U.S.C. 2000d-1 et seq., and the Department's implementing regulations, 31 CFR part 22; Section 504 of the Rehabilitation Act of 1973 (Section 504), Public Law 93-112, as amended by Public Law 93-516, 29 U.S.C. 794; Title IX of the Education Amendments of 1972 (Title IX), 20 U.S.C. 1681 et seq., and the Department's implementing regulations, 31 CFR part 28; Age Discrimination Act of 1975, Public Law 94-135, 42 U.S.C. 6101 et seq., and the Department implementing regulations at 31 CFR part 23.

25. SEVERABILITY

In the event that one or more provisions of this Agreement shall be determined to be invalid by any court of competent jurisdiction or agency having jurisdiction thereof, the remainder of the Agreement shall remain in full force and effect and the invalid provisions shall be deemed deleted.

26. COUNTERPARTS

This Agreement may be executed in on or more counterparts, any of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

27. AUTHORIZATION

Each party signing below warrants to the other party, that they have the full power and authority to execute this Agreement on behalf of the party for whom they sign.

IN WITNESS WHEREOF, this Agreement is executed and shall become effective as of the last date signed below:

Dated this 21 day of February 2024.

Campbell County Fiscal Court

By: Steve Pendery

Name: Steve Pendery

Title: Judge Executive

Northern Kentucky Water District:

By: Lindsey Rechten

Name: Lindsey Rechten

Title: President/CEO



EXHIBIT E-4

**CONDITIONAL COMMITMENT LETTER
AND AGREEMENT - KIA GRANT
21CWW025**



KENTUCKY INFRASTRUCTURE AUTHORITY

Andy Beshear
Governor

100 Airport Road
Frankfort, Kentucky 40601
(502) 573-0260
<https://kia.ky.gov>

Sandy Williams
Executive Director

March 17, 2022

Lindsey Rechtin
Acting Vp of Finance & Support Services/CFO
Northern Kentucky Water District
PO Box 18640
Erlanger, KY 41018

KENTUCKY INFRASTRUCTURE AUTHORITY CONDITIONAL COMMITMENT LETTER

KIA Grant Number 21CWW025
WRIS Project Number WX21037311

Dear Official,

Congratulations on receiving an award of Kentucky Cleaner Water Program (the "CWP") grant funds for your Project! The Kentucky Infrastructure Authority (the "Authority") approved the grant request to the Northern Kentucky Water District (the "Grantee") in the amount of \$1,000,000 for the Water Main Replacement – Newport and The Ovation project. We look forward to working with you to successfully complete your Project!

Please be aware that these CWP Grant Project funds are provided through the American Rescue Plan Act of 2021, Coronavirus State Fiscal Recovery Fund and must be obligated by December 31, 2024 and fully expended by December 31, 2026. Any funds not obligated by December 31, 2024 or expended by December 31, 2026 will be forfeited and will not be available for the project.

An Assistance Agreement will be executed between the Authority and the Grantee upon satisfactory performance of the conditions set forth in Attachment A. Funds will be available for disbursement only after execution of the Assistance Agreement.

During the course of implementing your project, please inform the Authority of any changes in the project scope and financing plan as soon as possible.



We wish you every success for this project, which will benefit both your community and the Commonwealth as a whole.

Sincerely,



Sandy Williams,
Executive Director

Attachments

cc: Amy Stoffer, Project Administrator
Lindsey Rechtin, Northern Kentucky Water District
Richard Benjamin Harrison
Don Schierer, KIA Grant Analyst
File

Please sign and return a copy of this letter indicating your acknowledgement and acceptance of the commitment and its terms and conditions incorporated by reference and in the Attachments and Exhibits.

Accepted

Date

ATTACHMENT A
GRANT TERMS AND CONDITIONS

Northern Kentucky Water District

The Conditional Commitment Letter and a subsequent Assistance Agreement between the Grantee and the Kentucky Infrastructure Authority shall be subject, but not limited, to the timely compliance with the following terms and conditions.

Terms

1. The grant award shall not exceed \$1,000,000 and shall be used solely for the designated project, unless otherwise permitted in writing by the Authority.
2. The grant funds shall be obligated by December 31, 2024. Any grant funds not obligated by December 31, 2024 will not be available for use by the Grantee and will not be available for the project.
3. Grant funds obligated by December 31, 2024 must be expended by the Grantee by December 31, 2026. Any obligated funds not fully expended by December 31, 2026 will not be available for use by the Grantee and will not be available for the project.
4. The grant must be reviewed and approved by the Capital Projects and Bond Oversight Committee of the Kentucky Legislature prior to the Authority's execution of the Assistance Agreement.
5. The Assistance Agreement must be executed within six (6) months from project bid opening.
6. Grant funds will only be disbursed after execution of the Assistance Agreement as project costs are incurred.
7. All approvals required by the Kentucky Division of Water (DOW) and/or the Kentucky Public Service Commission, if any, shall be obtained by the Grantee prior to project bid.
8. All acquisitions of easements or purchases of land shall be completed prior to commencement of construction.
9. Cleaner Water Program grant funds are federal funds. If more than \$750,000 of federal funds including all sources are disbursed to the Grantee in any one fiscal year, the Grantee is required to have a single or program-specific audit conducted for that year in accordance with 2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

10. If Cleaner Water Program funds are used in conjunction with any other federal funds including but not limited to programs of the EPA, USDA, HUD, CDBG, ARC or other federal agencies, the Cleaner Water Program funds shall comply with these agencies' program requirements, regulations, and laws such as compliance with the Davis-Bacon Act, the Federal Environmental Protection Act and others.
11. SAM.gov Requirements. Grantees are required to have an active registration with the System for Award Management (SAM) (<https://www.sam.gov>).
12. All correspondence and document sharing between the Authority and the Grantee shall be by email and portable document format (.pdf) attached to email.

Conditions

The following is a list of the standard conditions to be satisfied either prior to execution of the Assistance Agreement or incorporated in the Assistance Agreement. The Grantee shall provide completed documentation marked with the corresponding Exhibit Number related to each condition. Forms and document templates for each condition are provided in Attachment C. All required documentation must be submitted to the staff member of the Authority assigned to the Grantee.

1. The Project Profile (WX21037311) shall be updated to accurately reflect project data and mapping information effective as of the date certified in **Exhibit 1**.

Documentation of final funding commitments from all parties other than the Authority as identified in the Budget Tab of the updated Project Profile shall be submitted with Exhibit 1. Documentation shall be provided prior to execution of the Assistance Agreement and disbursement of grant funds. Any subsequent changes in the anticipated project funding shall be immediately reported to the Authority and may cause this grant to be subject to further consideration.

2. The Grantee shall obtain a Vendor Number from the Finance and Administration Cabinet of the Commonwealth of Kentucky and provide that Vendor Number to the Authority. **Exhibit 2**
3. The project shall comply with the reporting requirements of the Federal Funding Accountability and Transparency Act (FFATA). The Grantee shall complete the Transparency Act Reporting Information Form and return it to the Authority. **Exhibit 3**

Conditions 1 – 3 must be completed and copies of the respective Exhibits returned to the Authority with this signed Conditional Commitment Letter.

After providing the Authority with the signed Conditional Commitment Letter and Exhibits 1 through 3, the Grantee shall continue to complete Conditions 4 through 11 and return

the associated Exhibits and documentation to the Authority. Upon completion of the Conditions, the Authority will forward the Assistance Agreement to the Grantee for execution. The Authority may incorporate any unsatisfied conditions into the Assistance Agreement.

4. At an official meeting of its governing body, the Grantee shall approve acceptance of the Grant and the Assistance Agreement, amend its annual budget accordingly, and designate an Authorized Official to sign all appropriate documents. **Exhibit 4**
5. Legal Counsel for the Grantee must provide an opinion to the Authority as to the legality of Grantee accepting the grant, approving the Assistance Agreement, designating an Authorized Official, and the certificate of Recording Officer. **Exhibit 5**
6. The Grantee shall contract with an Engineer licensed in Kentucky and agree to the fee amount limitation as determined by the most recent USDA Rural Development Utility Program Fee Guide by jointly signing **Exhibit 6**.

The Grantee may request 50% of the engineering design fee as budgeted in the Project Profile when the Project plans and specifications are submitted to the Kentucky Division of Water (DOW). The balance of that fee may be requested once the Grantee provides a copy of the plans approval letter from DOW to the Authority.

7. The Grantee shall provide documentation of Kentucky EClearinghouse Endorsement and EClearinghouse Comments. **Exhibit 7**

Any significant changes or additions to the Project, deviating from the original scope of work described in the Project Profile, may require a new or amended eClearinghouse Endorsement, as determined by the eClearinghouse or the Authority.

8. The Grantee shall submit the DOW Plans approval letter to the Authority. **Exhibit 8**
9. The Grantee shall complete and submit the bid package to the Authority within 14 days of bid opening, which bid package shall include:
 - a. Engineer's Approval of "as-bid" project budget, with Engineer's signature;
 - b. Affidavit of Publication with Tear Sheet of Advertisement;
 - c. Certified Bid Tabs with Engineer's seal, number and signature;
 - d. Clear Site Certificates for each parcel of real property and easements, with date and signatures of the Grantee and Title Counsel.

Exhibit 9

The Grantee shall certify that its accounting system for water treatment and distribution and sewer service is maintained separately from its accounting for all

other operations, and that its service rates are based on the cost of providing the service and, that its utility operations are audited at least every two years.

Exhibit 10

10. Upon project completion, the Grantee shall submit, to the Authority, the Certificate of Project Completion, signed by the project Engineer, the Authorized Official and the Project Administrator. **Exhibit 11**

ATTACHMENT B
PROJECT BUDGET

CWP PROJECT BUDGET

Project Title: Water Main Replacement – Newport
and The Ovation

WRIS#: WX21037311

Project Budget: Estimated

enter date

As Bid

enter date

Revised

enter date

Cost Classification		CWP Grant 21CWW025	Funding Source 1	Funding Source 2	Funding Source 3	Funding Source 4	Funding Source 5	Local Funds	Unfunded Costs	Total
1	Administrative Expenses									
2	Legal Expenses									
3	Land, Appraisals, Easements									
4	Relocation Expense & Payments									
5	Planning									
6	Engineering Fees - Design									
0	Engineering Fees - Construction									
8	Engineering Fees - Inspection									
9	Engineering Fees - Other									
10	Construction									
11	Equipment									
12	Miscellaneous									
13	Contingencies									
	Total									

Funding Sources		Amount	Date Committed
1			
2			
3			
4			
5			
	Total		

Local Funding Sources		Amount	Date Committed
1			
2			
	Total		

Total Funding

-

Construction Cost Categories	Funding Source	Total Cost
Treatment		
Transmission and Distribution		
Transmission and Distribution: Lead Remediation		
Source		
Storage		
Purchase of Systems		
Restructuring		
Land Acquisition		
TOTAL CONSTRUCTION COSTS		

ATTACHMENT C

CWP GRANT CONDITIONS – COMPLIANCE FORMS & EXHIBITS

Note A: Exhibits 1 through 3 must be completed, scanned, and emailed to the Authority on or before the date the Grantee signs the Conditional Commitment Letter. The Conditional Commitment Letter may be signed electronically or manually, then scanned and emailed to the Authority.

- Exhibit 1 Notification to the Authority of completed Review / Update of Project Profile
- Exhibit 2 Confirmation of Grantee Vendor Number – via KY Finance Cabinet Application
- Exhibit 3 Copy of the Transparency Act Reporting Information Form

Note B: Upon receipt of the signed Conditional Commitment Letter and the Authority's verification of Exhibits 1-3, the Authority will forward to the Grantee the Grant Assistance Agreement. The Grantee should proceed to complete Exhibits 4 through 7, scan and send each Exhibit to the Authority by email; and then the Authorized Official may sign the Assistance Agreement, either electronically or by scanning and send attached to email.

- Exhibit 4 A) Grantee Resolution (Accepting Grant, Approving Agreement, Amending Budget, Designating an Authorized Official)
B) Certificate of Recording Officer
- Exhibit 5 Opinion of Legal Counsel Relating to the Grantee Resolution
- Exhibit 6 A) Copy of the Engineering Services Contract; and
B) Grantee & Engineer Fee Confirmation

Note C: The Grantee may request 50% of the engineering design fee (as budgeted in the Project Profile) at this point and may request the balance of the engineering design fee once Exhibit 8 has been sent to the Authority.

- Exhibit 7 Copy of the Kentucky eClearinghouse Endorsement Letter with Comments.
- Exhibit 8 Copy of the DOW Approval Letter of Project Engineering Plans & Specifications.
- Exhibit 9 Copy of the bid package signed by (A) Engineer, (B1) Authorized Official, and (B2) Title Attorney, as appropriate.
- Exhibit 10 Certification Regarding Utility Accounting, Cost-Based Rates and Auditing.
- Exhibit 11 Certificate of Project Completion.

EXHIBIT 1

CERTIFICATION OF PROJECT PROFILE REVIEW & UPDATE

The Project Profile was reviewed and updated in the Water Resource Information System
as of _____ by the Grantee's Authorized Official and Project Administrator.

(date)

Project Administrator: _____

EXHIBIT 2

EZ VENDOR REGISTRATION APPLICATION

A Vendor Number must be obtained on-line through the Kentucky Cabinet for Finance and Administration. This Vendor Number is *required for Grantee to receive payments from the Authority.*

[Vendor Registration Guide \(Revised December 2020\)](#)

[Link to the Vendor Self Service site](#)

The Grantee's Vendor Number is:

_____.

Project Administrator: _____.

EXHIBIT 3
TRANSPARENCY ACT REPORTING INFORMATION FORM
CLEANER WATER PROGRAM GRANT

This form is required for all utility entities with projects funded in whole or in part from the Cleaner Water Program Grant Fund. Please complete this form if your entity has a DUNS No. or as soon as you receive your DUNS No. and return it with the signed Conditional Commitment Letter you received from the Authority.

Grantee Information:

Grantee Name:	
Data Universal Numbering system (DUNS) No.*:	
KIA Grant Number	21CWW025
CWP Project Number:	WX21037311
Street Address	
City, State and Zip (Zip must include 4-digit extension)	
Federal Congressional District(s) of Grantee Utility Service Area:	

*If the DUNS No. provided above is registered under a different name than the recipient of the grant funding, please provide the registration name below:

DUNS Name	
-----------	--

*If the recipient has not yet obtained a DUNS Number, please do so upon receipt of the Authority's Conditional Commitment letter and provide notification to the Authority of the number once issued. For instructions on DUNS registration, please see information at the bottom of this page.

Physical Location of Project (Primary Place of Performance)

Street Address	
City, State and Zip (Zip must include 4-digit extension)	
Federal Congressional District(s) of Project Location	

Reliance upon Federal Assistance (please answer the below questions Yes or No):

Did recipient receive 80% or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards) during the last fiscal year?	
Did recipient receive \$25 million or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards) during the last fiscal year?	
Does the public have access to compensation of senior executives of the recipient through periodic reports filed under Section 13A or 15D of the Securities Exchange Act of 1934 or Section 6104 of the Internal Revenue Code of 1986?	

DUNS Registration Information: <http://fedgov.dnb.com/webform> or 1-866-705-5711.

Registration can be completed over the phone or via the web. Phone registration requests take approximately 10 minutes and are free. Internet requests are fulfilled within 24 hours.

EXHIBIT 4**RESOLUTION****RESOLUTION OF THE NORTHERN KENTUCKY WATER DISTRICT
ACCEPTING THE GRANT, APPROVING THE GRANT ASSISTENCE
AGREEMENT, AUTHORIZING THE AMENDMENT OF THE NORTHERN
KENTUCKY WATER DISTRICT'S ANNUAL BUDGET, AND
AUTHORIZING A REPRESENTATIVE TO SIGN ALL RELATED
DOCUMENTS**

WHEREAS, the Kentucky General Assembly has appropriated funds for infrastructure projects in Senate Bill 36 of the 2021 Regular Session of the Kentucky General Assembly for the Cleaner Water Program; and

WHEREAS, the Northern Kentucky Water District (the "Grantee") has previously determined that it is in the public interest to acquire and construct certain facilities and improvements to the Grantee's utility system (the "Project"); and

WHEREAS, the Grantee desires funding from the Kentucky Infrastructure Authority (the "Authority") for the purpose of acquisition and construction of the Project; and

WHEREAS, in order to obtain a grant from the Cleaner Water Program for the Project, and administered by the Authority, the Grantee is required to enter into an assistance agreement (the "Agreement") with the Authority.

NOW, THEREFORE, BE IT RESOLVED by the governing body of the Northern Kentucky Water District as follows:

SECTION 1. The Grantee hereby accepts the grant award and approves the Agreement between the Grantee and the Authority to provide the necessary funds to the Grantee for the Project.

SECTION 2. That _____ is hereby designated to be the Grantee's "Authorized Official" for this Project and is hereby directed and empowered by the Grantee to execute the Agreement, related documents and agreements, and to otherwise act on behalf of the Grantee to effect such grant award.

SECTION 3. That the Grantee hereby agrees and commits to include, by amendment to its annual budget and audit process, the receipts and expenditures of funds subject to the Agreement up to and including the date of Project closeout.

SECTION 4. That this resolution shall take effect at the earliest time provided by law.

ADOPTED on _____, 202____.

**NORTHERN KENTUCKY WATER
DISTRICT**

Authorized Signatory

CERTIFICATE OF RECORDING OFFICER

I, the undersigned, hereby certify that I am the duly qualified and acting Secretary/Clerk of the Grantee, and that the foregoing is a full, true and correct copy of a Resolution adopted by the governing body of said Grantee at a meeting duly held on _____, 202____; and that this official action appears as a matter of public record in the official records or journal of the Grantee; and that said meeting was held in accordance with all applicable requirements of Kentucky law, including Sections 61.810, 61.815, 61.820 and 61.823 of the Kentucky Revised Statutes; and that a quorum was present at the meeting; and that this official action has not been modified, amended, revoked or repealed and is now in full force and effect.

IN TESTIMONY WHEREOF, witness my signature, below, on _____
_____, 202____.

Secretary/Clerk

EXHIBIT 5

**OPINION OF LEGAL COUNSEL
RELATING TO GRANTEE RESOLUTION**

(Content below to be placed on letterhead of Legal Counsel for Grantee)

(Date)

Kentucky Infrastructure Authority
100 Airport Road, Third Floor
Frankfort, Kentucky 40601

RE: Grant Assistance Agreement by and between Kentucky Infrastructure Authority
and Grantee, dated as of _____, 202__.

Ms. Sandy Williams:

The undersigned is an attorney at law duly admitted to the practice of law in the Commonwealth of Kentucky and serves as legal counsel to the Northern Kentucky Water District, hereinafter referred to as the "Grantee". I am familiar with the organizational structure and operations of the Grantee and the laws of the Commonwealth applicable thereto. Additionally, I am familiar with the utility infrastructure project (the "Project") for which the Grant Assistance Agreement (the "Agreement") between the Kentucky Infrastructure Authority (the "Authority") and the Grantee is being authorized, executed and delivered.

I have reviewed the form of Agreement by and between the Authority and the Grantee and the legislation of the governing body authorizing the execution and delivery of said Agreement.

Based upon my review I am of the opinion that:

1) The Grantee is a (unit of local government, or a special purpose governmental entity or a corporation) of the Commonwealth of Kentucky duly organized and validly existing under the Constitution and statutes of the Commonwealth of Kentucky.

2) The Agreement has been duly executed and delivered by the Grantee and is a valid and binding obligation of the Grantee, enforceable in accordance with its terms, except to the extent that the enforceability thereof may be limited by equitable principles and by bankruptcy, reorganization, moratorium, insolvency, or similar laws heretofore or hereafter enacted relating to or affecting the enforcement of creditors' rights or remedies generally.

3) The Grantee has all necessary power and authority (i) to enter into, perform and consummate all transactions contemplated by the Agreement, and (ii) to execute and deliver the documents and instruments to be executed and delivered by it in connection with the construction of the Project.

4) The execution and delivery of the Agreement and the performance by the Grantee of its obligations thereunder does not and will not conflict with, violate, or constitute a default under any court or administrative order, decree or ruling, or any law, statute, ordinance or regulation, or any agreement, indenture, mortgage, lease, note or other obligation or instrument, binding upon the Grantee, or any of its properties or assets.

5) To the best of my knowledge after due inquiry there is no action, suit, proceedings or investigation at law or in equity before any court, public board or body pending or threatened against, affecting or questioning (i) the valid existence of the Grantee, (ii) the right or title of the members and officers of Grantee to their respective positions, (iii) the authorization, execution, delivery or enforceability of the Agreement or the application of any monies or security therefore, (iv) the construction of the Project, or (v) that would have a material adverse impact on the ability of the Grantee to perform its obligations under the Agreement.

6) None of the proceedings or authority heretofore had or taken by the Grantee for the authorization, execution or delivery of the Agreement has or have been repealed, rescinded, or revoked.

7) All proceedings and actions of the Grantee with respect to which the Agreement is to be delivered were in place or taken at meetings properly convened and held in substantial compliance with the applicable provisions of Sections 61.805 to 61.850 of the Kentucky Revised Statutes.

Respectfully,

EXHIBIT 6
ENGINEERING SERVICES

If the Grantee's Project requires professional engineering services, such services shall be properly procured in accordance with KRS 45A.730 to 45A.750.

- A. A copy of the Engineering Contract between the Grantee and the Engineer shall be submitted to the Authority, marked as **Exhibit 6A**.
- B. The Authority requires that the Engineer's fee be calculated based on the Engineer's estimated net construction cost of the Project in conformance with the latest version of the USDA Rural Development Utility Program Fee Guide.

Consequently, when services of a professional engineer are required for the Grantee's Project, the Grantee and the Project Engineer must confirm, by signature below, that:

Exhibit 6B The Grantee and the Professional Engineer concur and hereby state that the total dollar amount for all professional engineering services provided to the Grantee by the Engineer relating to the Project, as set out in the Project Profile, to be paid in sum, cumulatively, over the course of Project implementation, shall be less than or not to exceed the fee amounts as set out in the approved Project Profile Budget, as determined by the Engineer. Higher amounts for materials costs and construction costs than those estimated as contained in the Project Profile, as may result from Project bidding, do not warrant an increase in Engineering Fees unless the Project must be re-bid or infrastructure components must be re-designed as a consequence of bid-price overages. Further, it is understood that any proposed amendment to the Engineering Contract, as relates to the Grantee's Project is subject to prior written approval of the Authority.

Grantee Authorized Official: _____
Signature

Professional Engineering Firm: _____

Professional Engineer: _____
Signature

EXHIBIT 7

COPY OF eCLEARINGHOUSE ENDORSEMENT LETTER WITH COMMENTS

Note: In submitting the Project to the Kentucky eClearinghouse, be advised that the source of the Kentucky Cleaner Water Program funds is the American Rescue Plan Act of 2021, which established the Coronavirus State Fiscal Recovery Fund, and were appropriated through Senate Bill 36 of the 2021 Regular Session of the Kentucky General Assembly.

For purposes of the KY eClearinghouse, these funds are listed in the Catalog of Federal Domestic Assistance as ALN 21.027

[Link to eClearinghouse](#)

EXHIBIT 8

**COPY OF KENTUCKY DIVISION OF WATER APPROVAL LETTER
FOR
ENGINEER'S PROJECT PLANS & SPECIFICATIONS**

EXHIBIT 9

THE BID PACKAGE

Provide a signed copy of each of the following elements of the Bid Package to the Authority within 14 days of bid opening:

- 1) Engineer's Approval of "as-bid" project budget, with Engineer's signature.
- 2) Affidavit of Newspaper Publication with Tear Sheet of Advertisement.
- 3) Certified Bid Tabs with Engineer's seal, number, and signature.

EXHIBIT 9**CLEAR SITE CERTIFICATE – CWP Grantee**

I _____, the Authorized Official of the Northern Kentucky Water District, certifies that the Grantee has acquired all real property, including easements and rights-of-way, that are or will be required for construction, (erection, extension, modification, addition) operation and maintenance of the utility infrastructure project identified above.

I certify that the Grantee will not use Cleaner Water Program Funds for the purchase of real property (including easements) unless the purchase is from a willing seller.

I certify that, if another water or wastewater entity is served by the Project identified above, either the Grantee cited above or the entity to be served has acquired real property including easements and rights-of-way required for the proposed service.

I certify that the Title Attorney's Certification given on the attached certificate covers all real property including easements and rights-of way required for construction, operation and maintenance of the Grantee's project identified above.

I further certify that all real property, including easements required for the Grantee's project identified above, was acquired in accordance with the requirements of the Surface Transportation and Uniform Relocation Assistance Act of 1987 as set forth in 49 CFR Part 24.

Dated this ____ day of _____, 20____

Grantee's Authorized Official

Title (Chairman, Mayor, Commissioner, Manager, Superintendent, etc.)

EXHIBIT 9**CLEAR SITE CERTIFICATE – Title Attorney**

I, _____, an Attorney at Law, acting as Title Counsel to the Northern Kentucky Water District (the "Grantee"), the owner of the Project cited above, do hereby certify:

1. That I have investigated and ascertained the location of and am familiar with the legal description of the site or sites being provided by the Grantee for all elements of the Project identified above to be constructed (modified, extended, improved, altered) operated and maintained in and upon such site or sites.
2. That I have examined the deed records of the county or counties in which such Project is to be located, and in my opinion the Grantee has a legal and valid fee simple title or such other estate or interest in the site of the Project, including necessary easements and rights-of-way sufficient to assure undisturbed use and possession for the purpose of construction, operation and maintenance for the estimated life of the Project.
3. That any deeds or documents required to be recorded in order to protect the title of the owner and the interest of the Grantee have been duly recorded and filed of record wherever necessary.
4. If applicable, that the title to real property for which the Kentucky Infrastructure Authority funded the cost has been encumbered in accordance with the requirements of State and local law to adequately protect the interest of the Kentucky Infrastructure Authority.
5. Remarks:

Dated this _____ day of _____, 20____.

Attorney at Law: _____

Address: _____

EXHIBIT 10**CERTIFICATION REGARDING UTILITY ACCOUNTING , COST-BASED RATES
AND AUDITING**

I, the Authorized Official of the Northern Kentucky Water District (the "Grantee"), hereby certify that the Grantee agrees, as a condition of its Cleaner Water Program fund award, as follows:

- a) to establish and use a financial accounting system that accounts for the operations of water treatment and distribution separately from all other operations of the Grantee;
- b) to establish service rates based upon the cost of providing the service; and
- c) that the Authority may require an audit to be conducted of the Grantee's utility at least once every two (2) years.

Northern Kentucky Water District

Printed Name of Authorized Official

Signature of Authorized Official

Date

EXHIBIT 11**CERTIFICATE OF PROJECT COMPLETION**

Pursuant to the Grant Assistance Agreement between the Kentucky Infrastructure Authority (the "Authority") and the Northern Kentucky Water District (the "Grantee"), this certificate, signed by the Grantee's Engineer and the Grantee, confirms that the following Project implementation activities are complete.

1. The Project construction has been completed and payment in full has been made to all vendors and/or contractors for labor, services, materials, supplies, machinery, and equipment included in the Project, as appropriate.
2. The Project is complete and is available for the provision of services which are expected to commence on or about _____.
3. A set of Project construction plans, with hand-drawn illustrations and notations reflecting any changes and variances from the original plans, if any, has been delivered to the Project Administrator for use in updating the Water Resources Information System appropriately.

Project Engineer: _____

Date: _____

4. All lands, easements, rights of ways, temporary or permanent permits or other authorizations or clearances as well as necessary constructed structures or facilities in connection with the Project have been acquired, constructed, equipped, and installed and all costs and expenses incurred in connection therewith have been paid in full.

Authorized Official: _____

Project Administrator: _____

Date: _____

GRANT ASSISTANCE AGREEMENT

This Grant Assistance Agreement (the "Agreement") is made and entered into by and between the Kentucky Infrastructure Authority (the "Authority"), a body corporate and politic, constituting a public corporation and governmental agency and instrumentality of the Commonwealth of Kentucky, and the Northern Kentucky Water District (the "Grantee"), acting herein through its Authorized Official, each a party to this Agreement, which shall be effective upon the date of signing by the Executive Director of the Authority,

W I T N E S S E T H:

WHEREAS, the General Assembly of the Commonwealth of Kentucky, being the duly and legally constituted legislature of Kentucky at its 1988 Regular Session, enacted House Bill 217 amending Chapter 224A of the Kentucky Revised Statutes (the "Act"), creating the "Kentucky Infrastructure Authority" to serve the public purposes identified in the Act; and

WHEREAS, the Authority, attached to the Governor's Office, is charged pursuant to Section 224A.300 of the Act with coordinating the funding and implementation of infrastructure projects and to this end maintains the Water Resource Information System (the "WRIS") a comprehensive database of community water and wastewater projects across Kentucky; and

WHEREAS, Senate Bill 36 of the 2021 Regular Session of the Kentucky General Assembly approved a \$250,000,000 allocation in Federal Funds for Fiscal Year 2021 from the American Rescue Plan Act of 2021/Coronavirus State Fiscal Recovery Fund to the Authority for the Drinking Water and Wastewater Grant Program, known as the Kentucky Cleaner Water Program (the "CWP"), a portion of which funds are the subject of this Agreement; and

WHEREAS, the Grantee now seeks to acquire and construct a project as described in the Grantee's Project Profile in the WRIS (the "Project") and the Authority has determined that the Project meets the guidelines of the Cleaner Water Program and the directives of the General Assembly; and

WHEREAS, the Grantee and the Authority desire to enter into this Agreement which sets forth their respective duties, rights, covenants, and obligations with respect to the acquisition and construction of the Project and the application of the proceeds of a grant from the Cleaner Water Program as administered by the Authority.

NOW THEREFORE, in consideration of the mutual covenants and conditions contained herein, the grant hereby effected, and for other good and valuable consideration, the receipt, mutuality and sufficiency of which is hereby acknowledged by the parties hereto, the Authority and the Grantee each agree as follows:

SECTION 1 – DEFINITIONS

All terms utilized herein shall have the same definitions and meaning as ascribed to them in the Act, which Act is hereby incorporated in this Agreement by reference, the same as if set forth herein verbatim; provided, however, that those definitions utilized in the Act having general application are hereby modified in certain instances to apply specifically to the Grantee and its Project.

Act shall mean Chapter 224A of the Kentucky Revised Statutes, as amended (the “KRS”).

Agreement shall mean this Grant Assistance Agreement made and entered into by and between the Grantee and the Authority, as authorized by the Act, providing for a Grant to be made to the Grantee or its approved agent, subject to approval by the Authority.

Area Water Management Council shall mean the entity designated as the regional planning body for the respective counties within an Area Development District in Kentucky, which shall prepare and maintain an **Area Water Management Plan**, listing and prioritizing Project Profiles for water and wastewater projects within that region.

Engineer(s) shall mean the professional engineer or firm of professional engineers properly procured in accord with Chapter 45A of the KRS, as amended, by the Grantee in connection with the Project, as identified in the WRIS Cleaner Water Program Database.

Exhibit shall refer to a specific document, or to the completion of a process or procedure to be accomplished as a prerequisite to release of funds to the Grantee by the Authority.

Grant shall mean that portion of the Kentucky CWP funds made available to the Commonwealth by the American Recovery Program Act and allocated by the Kentucky General Assembly in its 2021 Regular Session, which shall be incrementally transferred under this Agreement from the Commonwealth to the Grantee through Grant Number 21CWW025 in the principal amount of \$1,000,000 for the purpose of defraying the costs incidental to the Project.

Grantee shall mean any unit of local government, or its designated agent, as approved by the Authority, or any special purpose governmental entity within the Commonwealth eligible for funds under the CWP in accordance with the Act, now having been or hereafter being granted the funds for the Project; and for the purposes of this Agreement shall mean the Grantee identified on the front page of this Agreement.

Project shall mean, when used generally, a water, wastewater or other infrastructure project authorized pursuant to the Act, and when used in specific reference to the Grantee’s Project funded by the Authority through the CWP, it shall refer to that

project as described in the Grantee's Project Profile in the WRIS, which has an 8 digit number following the designation WX or SX.

Project Administrator shall mean that individual designated in the Project Profile by that title, who has the capacity and responsibility of supervising the Project and coordinating the preparation of all related documentation on behalf of the Grantee with respect to the Project.

Project Budget shall mean a list of Project expenses and funding sources, in the form set forth in the current Project Profile as set forth in the WRIS.

Project Profile shall mean those specific details of the Project, presented by the Grantee to the respective Area Water Management Council for review and incorporation into the Area Water Management Plan and the WRIS.

System shall mean the utility system owned and operated by the Grantee or the agent of the Grantee, as approved by the Authority, to which the Project shall become a part, and any revenues generated by the Project, which are used to operate and maintain the utility system in the typical manner of a local public utility in Kentucky.

SECTION 2 - OBLIGATIONS OF THE AUTHORITY

The Authority covenants and agrees, conditioned upon the timely performance by the Grantee of its respective obligations, to undertake the following obligations:

- A. The Authority shall review and approve Project related documentation provided by the Grantee. Once the Project is under construction, the Authority shall review requests for payment submitted for payment of costs of the Project. Any deficiencies found in said requests will be reported immediately to the Grantee. If there are no deficiencies in said requests or deficiencies have been resolved satisfactorily by the Grantee, the Authority will approve the requests and disburse grant funds to the Grantee in an amount not to exceed, cumulatively, the approved grant amount for the Project.
- B. The Authority will communicate and cooperate with the Grantee to best assist the Grantee in meeting its obligations set out in this Agreement.

SECTION 3 - OBLIGATIONS OF THE GRANTEE

The Grantee covenants and agrees to undertake the following obligations:

- A. The Grantee shall complete and submit executed copies of all required Exhibits to the Authority, in accordance with the Conditional Commitment Letter instructions.

- B. The Grantee may consider utilizing the option for partial funding set out in Section 6, below. Over the course of the acquisition and construction of the Project, the Grantee shall provide such status reports as may be requested by the Authority, and once the Project is under construction submit periodic requests for payment to the Authority accompanied by copies of invoices for costs incurred in accordance with the Authority's standard draw-down request format.
- C. The Grantee shall perform and/or cause to be performed all necessary acts consistent with all federal and state labor and procurement laws in connection with the planning, design, acquisition and construction of the Project, including: the proper procurement of land, easements and rights of way; professional services, including but not limited to architectural and engineering services; construction contractor(s) services; and the acquisition of necessary equipment and/or materials.
- D. The Grantee shall obtain and keep on file all required permits, licenses and approvals from the appropriate federal, state, and/or local governmental agencies prior to starting construction of the Project.
- E. The Grantee shall comply with all applicable federal and state statutes, executive orders, regulatory requirements, and policies relating to the planning and construction of the Project.
- F. The Grantee shall cooperate fully with the Authority and provide any documentation requested by the Authority in order to facilitate completing the obligations set out in this Agreement.
- G. The Grantee will proceed expeditiously to complete the Project in accordance with the approved final engineering plans and specifications or amendments thereto, prepared by the Project Engineer for the Grantee, if required and as approved by the Authority and other state and federal agencies, as appropriate.
- H. The Grantee agrees that throughout the reasonable life of the infrastructure facilities developed under the Project it will retain ownership of, operate, and maintain these facilities, and all appurtenances thereto, keeping them in good and sound repair and good operating condition at its own expense so that the completed Project will continue to provide the services for which it was designed. Change of ownership or disposal of the Project facilities during their useful life may occur only with written approval of the Authority.
- I. If the Grantee is a local unit of government, city or county, and determines that it is in the best interest of its citizens, it may enter into a memorandum of agreement with a Kentucky corporation to serve as its agent for the implementation and long term operation and management of the Project, subject to the Agreement. The form and content of such a memorandum of agreement is subject to the prior approval of the Authority.

- J. General Compliance with all Duties. The Grantee shall faithfully and punctually perform all duties with reference to the System required by the American Rescue Plan Act of 2021, and by the terms and provisions of the Act, and this Assistance Agreement.
- K. Further Covenants under the American Rescue Plan Act of 2021. The Grantee shall comply with all further requirements or conditions which may arise from time to time in order to assure compliance with the American Rescue Plan Act of 2021, including but not limited to the following:
1. Records Retention. The Grantee shall provide to the Authority access to all records related to the Project for review in determining compliance with this Agreement and all applicable laws and regulations, including the American Rescue Plan Act of 2021/Coronavirus State Fiscal Recovery Fund. The Grantee shall retain all records, including all invoices, relating to the Project for five (5) years after full execution of the Certificate of Completion.
 2. Single Audit Requirements. Grantees that expend more than \$750,000 in Federal awards during their fiscal year will be subject to an audit under the Single Audit Act and its implementing regulation at 2 CFR Part 200, Subpart F regarding audit requirements. Grantees may also refer to the Office of Management and Budget (OMB) Compliance Supplements for audits of federal funds and related guidance and the Federal Audit Clearinghouse to see examples and single audit submissions.
 3. Civil Rights Compliance. The Grantee is required to meet legal requirements relating to nondiscrimination and nondiscriminatory use of Federal funds. Those requirements include ensuring that entities receiving Federal financial assistance from the U.S. Department of the Treasury do not deny benefits or services, or otherwise discriminate on the basis of race, color, national origin (including limited English proficiency), disability, age, or sex (including sexual orientation and gender identity), in accordance with the following authorities: Title VI of the Civil Rights Act of 1964 (Title VI) Public Law 88-352, 42 U.S.C. 2000d-1 et seq., and the Department's implementing regulations, 31 CFR part 22; Section 504 of the Rehabilitation Act of 1973 (Section 504), Public Law 93-112, as amended by Public Law 93-516, 29 U.S.C. 794; Title IX of the Education Amendments of 1972 (Title IX), 20 U.S.C. 1681 et seq., and the Department's implementing regulations, 31 CFR part 28; Age Discrimination Act of 1975, Public Law 94-135, 42 U.S.C. 6101 et seq., and the Department implementing regulations at 31 CFR part 23.
- L. General. The Grantee shall do and perform or cause to be done and performed all acts and things required to be done or performed by or on behalf of the Grantee under the provisions of the American Rescue Plan Act of 2021 and this Assistance Agreement in accordance with the terms of such provisions.

SECTION 4 - MUTUALITY OF OBLIGATIONS

- A. The parties agree that the funds granted by the Commonwealth to the Grantee are to be used solely for the purposes of the acquisition and construction of the Project. Further, the parties agree that the obligations imposed upon them are for their respective benefit and the timely fulfillment of the obligations set herein are necessary for the Project.
- B. Except as may otherwise be provided herein, the parties to this Agreement shall be solely responsible for any incidental costs incurred in fulfilling their respective obligations under this Agreement and neither party shall have any claim against the other party for reimbursement of incidental costs whether or not a party is in default.

SECTION 5 - TERMS OF AGREEMENT

- A. This Agreement shall be valid only after both parties have duly signed and provided the executed document to the other.
- B. This Agreement may be terminated by either party at any time for cause and may be terminated by either party without cause upon 30 days written notice to the other party. Termination of this Agreement shall not diminish or in any other manner affect any other remedy that may be available to the parties for any breach of the Agreement that occurs prior to the termination.
- C. If, after execution of this Agreement, additional financial assistance is found to be required for the acquisition and construction of the Project and the required additional assistance does or does not become available to the Grantee from any source, the Project may be modified so long as any change in scope and budget is mutually agreed to by the parties to this Agreement, and clearly documented in a revision of the Project Budget within the Project Profile.

SECTION 6 - ADVANCE FUNDING FOR PROJECT PLANNING AND DESIGN

- A. The Grantee may request, in writing, that a portion of the grant funds be disbursed prior to Project bidding to pay up to 50% of the budgeted engineering fee for Project planning and design to the Project Engineer to expedite submission of the Project plans and specifications for review by the Kentucky Division of Water. The balance of the budgeted engineering fee for project planning and design may be paid only after approval of the plans by the Kentucky Division of Water.
- B. It is specifically understood and agreed by the Grantee in the event that the Project has not been advertised for bids within twenty-four (24) months from the date of

signing of this Agreement, for whatever reason, any funds disbursed for Project planning and design are subject to full and immediate repayment by the Grantee to the Authority.

- C. No funds shall be released under this Section until the requirements of Exhibits 1 through 7 of this Agreement have been completed.

SECTION 7. - EVENTS OF DEFAULT AND REMEDIES.

Section 7.1. Events of Default Defined.

The following will be “Events of Default” under this Agreement and the term “Event of Default” or “Default” will mean, whenever it is used in this Agreement, any one or more of the following events:

- A. Any unauthorized or improper expenditure of funds by the Grantee, or expenditure of funds by the Grantee other than in accordance with the terms of this Agreement.
- B. Failure by the Grantee to observe or perform any covenant, condition or agreement on its part to be observed or performed, other than as referred to in subsection (A) of this Section, for a period of thirty (30) days after written notice specifying such failure and requesting that it be remedied will have been given to the Grantee by the Authority unless the Authority agrees in writing to an extension of such time prior to its expiration; provided, however, if the failure stated in the notice cannot be corrected within the applicable period, the Authority will not unreasonably withhold its consent to an extension of such time if corrective action is instituted by the Grantee within the applicable period and diligently pursued until such failure is corrected.
- C. The dissolution or liquidation of the Grantee, or the voluntary initiation by the Grantee of any proceeding under any federal or Kentucky law relating to bankruptcy, insolvency, arrangement, reorganization, readjustment of debt or any other form of debtor relief, or the initiation against the Grantee of any such proceeding which remain undismissed for sixty (60) days, or the entry by the Grantee into an agreement of composition with creditors or the failure generally by the Grantee to pay its debts as they become due.
- D. A default by the Grantee under the provisions of any agreements relating to its debt obligations.

Section 7.2. Remedies on Default.

Whenever any Event of Default referred to in Section 7.1 has occurred and is continuing, the Authority may, without any further demand or notice, take one or any combination of the following remedial steps:

- A. Declare this Agreement void from the beginning without further obligation to the Grantee and may commence appropriate legal action to enforce its rights under this Agreement including action for recovery of funds expended hereunder.
- B. Terminate any remaining grant payments to the Grantee.
- C. Exercise all the rights and remedies of the Authority set forth in the Act.
- D. Take whatever action at law or in equity may appear necessary or desirable to enforce its rights under this Agreement.
- E. Submit a formal referral to the appropriate federal agency.

Section 7.3. No Remedy Exclusive.

No remedy herein conferred upon or reserved to the Authority is intended to be exclusive, and every such remedy will be cumulative and will be in addition to every other remedy given hereunder and every remedy now or hereafter existing at law or in equity. No delay or omission to exercise any right or power accruing upon any default will impair any such right or power and any such right and power may be exercised from time to time and as often as may be deemed expedient.

Section 7.4. Consent to Powers of Authority Under Act.

The Grantee hereby acknowledges to the Authority its understanding of the provisions of the Act, vesting in the Authority certain powers, rights and privileges in respect of the Project upon the occurrence of an Event of Default, and the Grantee hereby covenants and agrees that if the Authority should in the future have recourse to said rights and powers, the Grantee shall take no action of any nature whatsoever calculated to inhibit, nullify, void, delay or render nugatory such actions of the Authority in the due and prompt implementation of this Agreement.

Section 7.5. Waivers.

In the event that any agreement contained herein should be breached by either party and thereafter waived by the other party, such waiver will be limited to the particular breach so waived and will not be deemed to waive any other breach hereunder.

Section 7.6. Agreement to Pay Attorneys' Fees and Expenses.

In the event that either party hereto defaults under any of the provisions hereof and the non-defaulting party employs attorneys or incurs other expenses for the enforcement of

performance or observance of any obligation or agreement on the part of the defaulting party herein contained, the defaulting party agrees that it will pay on demand therefor to the non-defaulting party the fees of such attorneys and such other expenses so incurred by the non-defaulting party.

SECTION 8 - MISCELLANEOUS PROVISIONS

- A. The Grantee may sign this Agreement electronically via a program subject to the approval by the Authority, or manually on a paper copy that is scanned to the portable document format (.pdf) and emailed to the Authority. Transmittal of all other correspondence or documentation, including the required Exhibits identified in the Attachment shall be scanned and attached as a file to email. The Authority and the Grantee, working through the Project Administrator, shall assist each other in securing and maintaining a complete, current Project document file for reference, records, and audit purposes.
- B. The headings set forth in this Agreement are for convenience and the terms contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.
- C. The terms and conditions of this Agreement shall be binding upon and shall inure to the benefit of the successor and assigns, respectively, of the parties. Except for the limited use of a memorandum of agreement (as provided in Section 3 herein), this provision shall not be construed to permit an assignment by any party of any of its rights and duties under this Agreement which assignment shall be prohibited except with the prior written consent of the parties hereto.
- D. This Agreement sets forth the entire understanding of the parties with respect to the subject matter hereof and may be modified only by a written instrument duly executed by each of the parties hereto.
- E. Timely and accurate performance of all actions by the respective parties are mutually recognized by the parties of this Agreement to be of importance to the citizens of the Commonwealth generally, and particularly to those citizens directly affected by the Project.
- F. This Agreement will be governed by and construed in accordance with the laws of the Commonwealth of Kentucky.
- G. The Authority may audit or review all documentation and records of the Grantee relating to this Project pursuant to the provisions of Section 45A.150 of the KRS or any other applicable federal or state law.
- H. The Grantee agrees that the Authority, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other documentation or evidence, which are directly pertinent to this Agreement for the purpose of financial audit or program review.

Furthermore, any books, documents, papers records, or other evidence provided to the Commonwealth, the Finance and Administration Cabinet, the Auditor of Public Accounts, or the Legislative Research Commission, which are directly pertinent to this Agreement, shall be subject to public disclosure regardless of the proprietary nature of the information, unless specific information is identified and exempted and agreed to by the Secretary of the Finance and Administration Cabinet as meeting the provisions of KRS 61.878(1)(c) prior to the execution of this Agreement. The Secretary of the Finance and Administration Cabinet shall not restrict the public release of any information which would otherwise be subject to public release if a state government agency was providing the services.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their respective duly authorized officials as of the day and year above written.

**KENTUCKY INFRASTRUCTURE
AUTHORITY**

By:  For Sandy Williams
Sandy Williams, Executive Director

Date: 07/23/2024

NORTHERN KENTUCKY WATER DISTRICT

By: 
Authorized Official

**THIS AGREEMENT HAS BEEN EXAMINED
BY:**

By: 
LEGAL COUNSEL TO THE KENTUCKY
INFRASTRUCTURE AUTHORITY

CWP GRANT CONDITIONS – COMPLIANCE FORMS & EXHIBITS

Note A: Exhibits 1 through 3 must be completed, scanned, and emailed to the Authority on or before the date the Grantee signs the Conditional Commitment Letter. The Conditional Commitment Letter may be signed electronically or manually, then scanned and emailed to the Authority.

- Exhibit 1 Notification to the Authority of completed Review / Update of Project Profile
- Exhibit 2 Confirmation of Grantee Vendor Number – via KY Finance Cabinet Application
- Exhibit 3 Copy of the Transparency Act Reporting Information Form

Note B: Upon receipt of the signed Conditional Commitment Letter and the Authority's verification of Exhibits 1-3, the Authority will forward to the Grantee the Grant Assistance Agreement. The Grantee should proceed to complete Exhibits 4 through 7, scan and send each Exhibit to the Authority by email; and then the Authorized Official may sign the Assistance Agreement, either electronically or by scanning and send attached to email.

- Exhibit 4 A) Grantee Resolution (Accepting Grant, Approving Agreement, Amending Budget, Designating an Authorized Official)
B) Certificate of Recording Officer
- Exhibit 5 Opinion of Legal Counsel Relating to the Grantee Resolution
- Exhibit 6 A) Copy of the Engineering Services Contract; and
B) Grantee & Engineer Fee Confirmation

Note C: The Grantee may request 50% of the engineering design fee (as budgeted in the Project Profile) at this point and may request the balance of the engineering design fee once Exhibit 8 has been sent to the Authority.

- Exhibit 7 Copy of the Kentucky eClearinghouse Endorsement Letter with Comments.
- Exhibit 8 Copy of the DOW Approval Letter of Project Engineering Plans & Specifications.
- Exhibit 9 Copy of the bid package signed by (A) Engineer, (B1) Authorized Official, and (B2) Title Attorney, as appropriate.
- Exhibit 10 Certification Regarding Utility Accounting, Cost-Based Rates and Auditing.
- Exhibit 11 Certificate of Project Completion.



EXHIBIT E-5

**CONDITIONAL COMMITMENT LETTER
AND AGREEMENT - KIA GRANT
22CWW223**



KENTUCKY INFRASTRUCTURE AUTHORITY

Andy Beshear
Governor

100 Airport Road
Frankfort, Kentucky 40601
(502) 573-0260
<https://kia.ky.gov>

Sandy Williams
Executive Director

November 21, 2022

Lindsey Rechtin
Acting Vp of Finance & Support Services/CFO
Northern Kentucky Water District
PO Box 18640
Erlanger, KY 41018

KENTUCKY INFRASTRUCTURE AUTHORITY CONDITIONAL COMMITMENT LETTER

KIA Grant Number 22CWW223
WRIS Project Number WX21037311

Dear Official,

Congratulations on receiving an award of Kentucky Cleaner Water Program (the "CWP") Round 2 grant funds for your Project! The Kentucky Infrastructure Authority (the "Authority") approved the grant request to the Northern Kentucky Water District (the "Grantee") in the amount of \$2,403,872 for the Water Main Replacement – Newport and The Ovation project. We look forward to working with you to successfully complete your Project!

Please be aware that these Round 2 CWP Grant Project funds are provided through the American Rescue Plan Act of 2021, Coronavirus State Fiscal Recovery Fund and must be obligated by December 31, 2024 and fully expended by December 31, 2026. Any funds not obligated by December 31, 2024 or expended by December 31, 2026 will be forfeited and will not be available for the project.

An Assistance Agreement will be executed between the Authority and the Grantee upon satisfactory performance of the conditions set forth in Attachment A. Funds will be available for disbursement only after execution of the Assistance Agreement.

During the course of implementing your project, please inform the Authority of any changes in the project scope and financing plan as soon as possible.



We wish you every success for this project, which will benefit both your community and the Commonwealth as a whole.

Sincerely,



Sandy Williams,
Executive Director

Attachments

cc: Amy Stoffer, Project Administrator
Stacey Kampsen, Northern Kentucky Water District
Richard Benjamin Harrison
Jeff Burt, ADD Coordinator
Don Schierer, KIA Grant Analyst
File

Please sign and return a copy of this letter indicating your acknowledgement and acceptance of the commitment and its terms and conditions incorporated by reference and in the Attachments and Exhibits.

Accepted

Date

ATTACHMENT A
GRANT TERMS AND CONDITIONS

Northern Kentucky Water District

The Conditional Commitment Letter and a subsequent Assistance Agreement between the Grantee and the Kentucky Infrastructure Authority shall be subject, but not limited, to the timely compliance with the following terms and conditions.

Terms

1. The grant award shall not exceed \$2,403,872 and shall be used solely for the designated project, unless otherwise permitted in writing by the Authority. Any reallocation requests should request signature approval by the original consensus approval group.
2. The grant funds shall be obligated by December 31, 2024. Any grant funds not obligated by December 31, 2024 will not be available for use by the Grantee and will not be available for the project.
3. Grant funds obligated by December 31, 2024 must be expended by the Grantee by December 31, 2026. Any obligated funds not fully expended by December 31, 2026 will not be available for use by the Grantee and will not be available for the project.
4. The grant must be reviewed and approved by the Capital Projects and Bond Oversight Committee of the Kentucky Legislature prior to the Authority's execution of the Assistance Agreement.
5. The Assistance Agreement must be executed within six (6) months from project bid opening.
6. Grant funds will only be disbursed after execution of the Assistance Agreement as project costs are incurred.
7. All approvals required by the Kentucky Division of Water (DOW), if any, shall be obtained by the Grantee prior to project bid. All approvals required by the Kentucky Public Service Commission, if any, shall be obtained prior to commencement of project construction.
8. All acquisitions of easements or purchases of land shall be completed prior to commencement of construction.
9. Cleaner Water Program grant funds are federal funds. If more than \$750,000 of federal funds including all sources are disbursed to the Grantee in any one fiscal year, the Grantee is required to have a single or program-specific audit conducted

for that year in accordance with 2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

10. If the grant funds are used in conjunction with any other federal funds including but not limited to programs of the EPA, USDA, HUD, CDBG, ARC or other federal agencies, the Cleaner Water Program funds shall comply with these agencies' program requirements, regulations, and laws such as compliance with the Davis-Bacon Act, the Federal Environmental Protection Act and others.
11. SAM.gov Requirements. Grantees are required to have an active registration with the System for Award Management (SAM) (<https://www.sam.gov>).
12. All correspondence and document sharing between the Authority and the Grantee shall be by email and portable document format (.pdf) attached to email.

Conditions

The following is a list of the standard conditions to be satisfied either prior to execution of the Assistance Agreement or incorporated in the Assistance Agreement. The Grantee shall provide completed documentation marked with the corresponding Exhibit Number related to each condition. Forms and document templates for each condition are provided in Attachment C. All required documentation must be submitted to the staff member of the Authority assigned to the Grantee.

1. The Project Profile (WX21037311) shall be updated to accurately reflect project data, including the budget and mapping information, effective as of the date certified in **Exhibit 1**.

Documentation of final funding commitments from all parties other than the Authority as identified on the Project Budget (Attachment B) and in the Budget Tab of the updated Project Profile shall be provided prior to execution of the Assistance Agreement and disbursement of grant funds. Any subsequent changes in the anticipated project funding shall be immediately reported to the Authority and may cause this grant to be subject to further consideration.

2. The Grantee shall obtain a Vendor Number from the Finance and Administration Cabinet of the Commonwealth of Kentucky and provide that Vendor Number to the Authority as **Exhibit 2**.
3. The project shall comply with the reporting requirements of the Federal Funding Accountability and Transparency Act (FFATA). The Grantee shall complete the Transparency Act Reporting Information Form and return it to the Authority as **Exhibit 3**.

Exhibits 1 – 3 must be completed and returned to the Authority with this signed Conditional Commitment Letter.

After providing the Authority with the signed Conditional Commitment Letter and Exhibits 1 through 3, the Authority will forward to the Grantee the Grant Assistance Agreement. Upon completion by the Grantee of Exhibits 4, 5, and 7, the Authorized Official shall sign the Assistance Agreement and forward the Exhibits, with supporting documentation, and the signed Assistance Agreement to the Authority for execution. The Grantee shall continue to complete the remaining Exhibits (6 and 8 through 10).

4. After receiving the Grant Assistance Agreement: At an official meeting of its governing body, the Grantee shall approve acceptance of the Grant and the Assistance Agreement, amend its annual budget accordingly, and designate an Authorized Official to sign all appropriate documents. The resolution and the certificate of Recording Officer are submitted as **Exhibit 4**.
5. After receiving the Grant Assistance Agreement: Legal Counsel for the Grantee must provide an opinion to the Authority as to the legality of Grantee accepting the grant and approving the Assistance Agreement as **Exhibit 5**.
6. The Grantee shall contract with an Engineer licensed in Kentucky **Exhibit 6A** and agree to the fee amount limitation as determined by the most recent USDA Rural Development Utility Program Fee Guide by jointly signing **Exhibit 6B**.

The Grantee may request 50% of the engineering design fee as budgeted in the Project Profile when the Project plans and specifications are submitted to the Kentucky Division of Water (DOW). The balance of that fee may be requested once the Grantee provides a copy of the plans approval letter from DOW to the Authority.

7. The Grantee shall provide documentation of Kentucky eClearinghouse Endorsement and eClearinghouse Comments as **Exhibit 7**.

Any significant changes or additions to the Project, deviating from the original scope of work described in the Project Profile, may require a new or amended eClearinghouse Endorsement, as determined by the eClearinghouse or the Authority.

8. The Grantee shall submit the DOW Plans approval letter to the Authority as **Exhibit 8**.
9. The Grantee shall complete and submit the bid package (**Exhibit 9**) to the Authority within 14 days of bid opening, which bid package shall include:
 - a. Engineer's Approval of "as-bid" project budget, with Engineer's signature;
 - b. Affidavit of Publication with Tear Sheet of Advertisement;
 - c. Certified Bid Tabs with Engineer's seal, number and signature;
 - d. Clear Site Certificates for each parcel of real property and easements, with date and signatures of the Grantee (**Exhibit 9A**) and Title Counsel (**Exhibit 9B**).

10. The Grantee shall certify that its accounting system for water treatment and distribution and sewer service is maintained separately from its accounting for all other operations, and that its service rates are based on the cost of providing the service and, that its utility operations are audited at least every two years as **Exhibit 10**.
11. Upon project completion, the Grantee shall submit, to the Authority, the Certificate of Project Completion, signed by the project Engineer, the Authorized Official and the Project Administrator as **Exhibit 11**.

ATTACHMENT B
PROJECT BUDGET

CWP PROJECT BUDGET

Project Title: Water Main Replacement – Newport
and The Ovation

WRIS#: WX21037311

Project Budget: Estimated

enter date

As Bid

enter date

Revised

enter date

Cost Classification		CWP Grant 22CWW22 3	Funding Source 1	Funding Source 2	Funding Source 3	Funding Source 4	Funding Source 5	Local Funds	Unfunded Costs	Total
1	Administrative Expenses									
2	Legal Expenses									
3	Land, Appraisals, Easements									
4	Relocation Expense & Payments									
5	Planning									
6	Engineering Fees - Design									
7	Engineering Fees - Construction									
8	Engineering Fees - Inspection									
9	Engineering Fees - Other									
10	Construction									
11	Equipment									
12	Miscellaneous									
13	Contingencies									
	Total									

Funding Sources		Amount	Date Committed
1			
2			
3			
4			
5			
	Total		

Local Funding Sources		Amount	Date Committed
1			
2			
	Total		

Total Funding

-

Construction Cost Categories	Funding Source	Total Cost
Treatment		
Transmission and Distribution		
Transmission and Distribution – Lead Remediation		
Source		
Storage		
Purchase of Systems		
Restructuring		
Land Acquisition		
TOTAL CONSTRUCTION COSTS		

ATTACHMENT C

CWP GRANT CONDITIONS – COMPLIANCE FORMS & EXHIBITS

Note A: Exhibits 1 through 3 must be completed, signed electronically or manually, then scanned and emailed to THE AUTHORITY with the Grantee's signed Conditional Commitment Letter.

- Exhibit 1 Notification to The Authority of completed Review / Update of Project Profile
- Exhibit 2 Confirmation of Grantee Vendor Number – via KY Finance Cabinet Application
- Exhibit 3 Transparency Act Reporting Information Form

Note B: Upon receipt of the signed Conditional Commitment Letter, the Authority's verification of Exhibits 1-3, and approval by the Capital Projects and Bond Oversight Committee (CPBOC), the Authority will forward to the Grantee the Grant Assistance Agreement. AFTER receiving the Grant Assistance Agreement, the Grantee should complete Exhibits 4, 5, and 7. Then the Authorized Official may sign the Agreement and email it to the Authority with Exhibits 4, 5, and 7.

- Exhibit 4 Grantee Resolution (Accepting Grant, Approving Agreement, Amending Budget, Designating an Authorized Official) and Certificate of Recording Officer
- Exhibit 5 Opinion of Legal Counsel Relating to the Grantee Resolution
- Exhibit 7 Kentucky eClearinghouse Endorsement Letter with Comments.

Note C: The Grantee may request 50% of the engineering design fee (as budgeted in the Project Profile) upon receipt of Attachment B and Exhibits 1 thru 7 and may request the balance of the engineering design fee upon the Authority's receipt of Exhibit 8.

Attachment B CWP Project Budget

- Exhibit 6A Copy of the Engineering Services Contract
- Exhibit 6B Grantee & Engineer Fee Confirmation
- Exhibit 8 Copy of the DOW Approval Letter of Engineering Plans & Specifications.
- Exhibit 9 Bid Package: Engineer's Approval of "as-bid" project budget
 Affidavit of Newspaper Publication with Tear Sheet
 Certified Bid Tabs with Engineer's seal, number, and signature
- Exhibit 9A Clear Site Certificate – CWP Grantee.
- Exhibit 9B Clear Site Certificate – Title Attorney.
- Exhibit 10 Certification Regarding Utility Accounting, Cost-Based Rates and Auditing.
- Exhibit 11 Certificate of Project Completion.

EXHIBIT 1

CERTIFICATION OF PROJECT PROFILE REVIEW & UPDATE

The Project Profile was reviewed and updated in the Water Resource Information System
as of _____ by the Grantee's Authorized Official and Project Administrator.

(date)

Project Administrator: _____

Grant Number: 22CWW223

EXHIBIT 2**EZ VENDOR REGISTRATION APPLICATION**

A Vendor Number must be obtained on-line through the Kentucky Cabinet for Finance and Administration. This Vendor Number is *required for Grantee to receive payments from the Authority.*

[Vendor Registration Guide](#)

[Link to the Vendor Self Service Site](#)

The Grantee's Vendor Number is _____.

Project Administrator: _____

Grant Number: 22CWW223

EXHIBIT 3
TRANSPARENCY ACT REPORTING INFORMATION FORM
CLEANER WATER PROGRAM GRANT

This form is required for all utility entities with projects funded in whole or in part from the Cleaner Water Program Grant Fund. Please complete this form if your entity has a Unique Entity ID or as soon as you receive your Unique Entity ID and return it with the signed Conditional Commitment Letter you received from the Authority.

Grantee Information:

Grantee Name:	Northern Kentucky Water District
Unique Entity ID (generated by SAM.gov)*:	
KIA Grant Number:	22CWW223
CWP WRIS Project Number	WX21037311
Street Address	
City, State and Zip (Zip must include 4 digit extension)	
Federal Congressional District(s) of Grantee Utility Service Area:	

*If the Unique Entity ID provided above is registered under a different name than the recipient of the grant funding, please provide the registration name below:

Unique Entity ID Name	
-----------------------	--

*If the recipient has not yet obtained a Unique Entity ID, please do so upon receipt of the Authority's Conditional Commitment letter and provide notification to the Authority of the number once issued. For instructions on the Unique Entity ID registration, please see the link at the bottom of this page.

Physical Location of Project (Primary Place of Performance)

Street Address	
City, State and Zip (Zip must include 4 digit extension)	
Federal Congressional District(s) of Project Location	

Reliance upon Federal Assistance (please answer the below questions Yes or No):

Did recipient receive 80% or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards) during the last fiscal year?	
Did recipient receive \$25 million or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards) during the last fiscal year?	
Does the public have access to compensation of senior executives of the recipient through periodic reports filed under Section 13A or 15D of the Securities Exchange Act of 1934 or Section 6104 of the Internal Revenue Code of 1986?	

Unique Entity ID Registration Information: <https://sam.gov>

EXHIBIT 4**RESOLUTION****RESOLUTION OF THE NORTHERN KENTUCKY WATER DISTRICT
ACCEPTING THE GRANT, APPROVING THE GRANT ASSISTANCE
AGREEMENT, AUTHORIZING THE AMENDMENT OF THE NORTHERN
KENTUCKY WATER DISTRICT'S ANNUAL BUDGET, AND
AUTHORIZING A REPRESENTATIVE TO SIGN ALL RELATED
DOCUMENTS**

WHEREAS, the Kentucky General Assembly has appropriated funds for infrastructure projects in House Bill 1 of the 2022 Regular Session of the Kentucky General Assembly for the Cleaner Water Program; and

WHEREAS, the Northern Kentucky Water District (the "Grantee") has previously determined that it is in the public interest to acquire and construct certain facilities and improvements to the Grantee's utility system (the "Project"); and

WHEREAS, the Grantee desires funding from the Kentucky Infrastructure Authority (the "Authority") for the purpose of acquisition and construction of the Project; and

WHEREAS, in order to obtain a grant from the Cleaner Water Program for the Project, and administered by the Authority, the Grantee is required to enter into an assistance agreement (the "Agreement") with the Authority.

NOW, THEREFORE, BE IT RESOLVED by the governing body of the Northern Kentucky Water District as follows:

SECTION 1. The Grantee hereby accepts the grant award and approves the Agreement between the Grantee and the Authority to provide the necessary funds to the Grantee for the Project.

SECTION 2. That _____ is hereby designated to be the Grantee's "Authorized Official" for this Project and is hereby directed and empowered by the Grantee to execute the Agreement, related documents and agreements, and to otherwise act on behalf of the Grantee to effect such grant award, and to engage a qualified Project Administrator.

SECTION 3. That the Grantee hereby agrees and commits to include, by amendment to its annual budget and audit process, the receipts and expenditures of funds subject to the Agreement up to and including the date of Project closeout.

SECTION 4. That this resolution shall take effect at the earliest time provided by law.

ADOPTED on _____, 202____.

**NORTHERN KENTUCKY WATER
DISTRICT**

Authorized Signatory

CERTIFICATE OF RECORDING OFFICER

I, the undersigned, hereby certify that I am the duly qualified and acting Secretary/Clerk of the Grantee, and that the foregoing is a full, true and correct copy of a Resolution adopted by the governing body of said Grantee at a meeting duly held on _____, 202____; and that this official action appears as a matter of public record in the official records or journal of the Grantee; and that said meeting was held in accordance with all applicable requirements of Kentucky law, including Sections 61.810, 61.815, 61.820 and 61.823 of the Kentucky Revised Statutes; and that a quorum was present at the meeting; and that this official action has not been modified, amended, revoked or repealed and is now in full force and effect.

IN TESTIMONY WHEREOF, witness my signature, below, on _____
_____, 202____.

Secretary/Clerk

EXHIBIT 5

**OPINION OF LEGAL COUNSEL
RELATING TO GRANTEE RESOLUTION**

(Content below to be placed on letterhead of Legal Counsel for Grantee)

(Date)

Kentucky Infrastructure Authority
100 Airport Road, Third Floor
Frankfort, Kentucky 40601

RE: Grant Assistance Agreement by and between Kentucky Infrastructure Authority and Grantee, dated as of _____, 202__.

Ms. Sandy Williams:

The undersigned is an attorney at law duly admitted to the practice of law in the Commonwealth of Kentucky and serves as legal counsel to the Northern Kentucky Water District, hereinafter referred to as the "Grantee". I am familiar with the organizational structure and operations of the Grantee and the laws of the Commonwealth applicable thereto. Additionally, I am familiar with the utility infrastructure project (the "Project") for which the Grant Assistance Agreement (the "Agreement") between the Kentucky Infrastructure Authority (the "Authority") and the Grantee is being authorized, executed and delivered.

I have reviewed the form of Agreement by and between the Authority and the Grantee and the legislation of the governing body authorizing the execution and delivery of said Agreement.

Based upon my review I am of the opinion that:

1) The Grantee is a (unit of local government, or a special purpose governmental entity or a corporation) of the Commonwealth of Kentucky duly organized and validly existing under the Constitution and statutes of the Commonwealth of Kentucky.

2) The Agreement has been duly executed and delivered by the Grantee and is a valid and binding obligation of the Grantee, enforceable in accordance with its terms, except to the extent that the enforceability thereof may be limited by equitable principles and by bankruptcy, reorganization, moratorium, insolvency, or similar laws heretofore or hereafter enacted relating to or affecting the enforcement of creditors' rights or remedies generally.

3) The Grantee has all necessary power and authority (i) to enter into, perform and consummate all transactions contemplated by the Agreement, and (ii) to execute and deliver the documents and instruments to be executed and delivered by it in connection with the construction of the Project.

4) The execution and delivery of the Agreement and the performance by the Grantee of its obligations thereunder does not and will not conflict with, violate, or constitute a default under any court or administrative order, decree or ruling, or any law, statute, ordinance or regulation, or any agreement, indenture, mortgage, lease, note or other obligation or instrument, binding upon the Grantee, or any of its properties or assets.

5) To the best of my knowledge after due inquiry there is no action, suit, proceedings or investigation at law or in equity before any court, public board or body pending or threatened against, affecting or questioning (i) the valid existence of the Grantee, (ii) the right or title of the members and officers of Grantee to their respective positions, (iii) the authorization, execution, delivery or enforceability of the Agreement or the application of any monies or security therefore, (iv) the construction of the Project, or (v) that would have a material adverse impact on the ability of the Grantee to perform its obligations under the Agreement.

6) None of the proceedings or authority heretofore had or taken by the Grantee for the authorization, execution or delivery of the Agreement has or have been repealed, rescinded, or revoked.

7) All proceedings and actions of the Grantee with respect to which the Agreement is to be delivered were in place or taken at meetings properly convened and held in substantial compliance with the applicable provisions of Sections 61.805 to 61.850 of the Kentucky Revised Statutes.

Respectfully,

EXHIBIT 6A
ENGINEERING SERVICES

If the Grantee's Project requires professional engineering services, such services shall be properly procured in accordance with KRS 45A.730 to 45A.750.

A copy of the Engineering Contract between the Grantee and the Engineer shall be submitted to the Authority, marked as **Exhibit 6A**.

Please check the box below that most closely describes your project. If additional comments need to be made, please provide comments in the blank area below or attach a separate sheet.

- ☐ This project requires an engineer and will have an engineering contract.
- ☐ This project was designed by an in-house engineer and will not have an engineering contract.
- ☐ This project does not require design by an engineer and will not have an engineering contract.

EXHIBIT 6B**GRANTEE & ENGINEER FEE CONFIRMATION**

The Authority requires that the Engineer's fee be calculated based on the Engineer's estimated net construction cost of the Project in conformance with the latest version of the USDA Rural Development Utility Program Fee Guide.

Consequently, when services of a professional engineer are required for the Grantee's Project, the Grantee and the Project Engineer must confirm, by signature below, that:

The Grantee and the Professional Engineer concur and hereby state that the total dollar amount for all professional engineering services provided to the Grantee by the Engineer relating to the Project, as set out in the Project Profile, to be paid in sum, cumulatively, over the course of Project implementation, shall be less than or not to exceed the fee amounts as set out in the approved Project Profile Budget, as determined by the Engineer. Higher amounts for materials costs and construction costs than those estimated as contained in the Project Profile, as may result from Project bidding, do not warrant an increase in Engineering Fees unless the Project must be re-bid or infrastructure components must be re-designed as a consequence of bid-price overages. Further, it is understood that any proposed amendment to the Engineering Contract, as relates to the Grantee's Project is subject to prior written approval of the Authority.

Grantee Authorized Official: _____
Signature

Professional Engineering Firm: _____

Professional Engineer: _____
Signature

Please check the box below if the project does not require a contract with an outside engineer. If additional comments need to be made, please provide comments in the blank area below or attach a separate sheet.

- ☐ This form does not apply because the project was designed by an in-house engineer or the project does not require design by an engineer.

EXHIBIT 7

COPY OF eCLEARINGHOUSE ENDORSEMENT LETTER WITH COMMENTS

Note: In submitting the Project to the Kentucky eClearinghouse, be advised that the source of the Kentucky Cleaner Water Program funds is the American Rescue Plan Act of 2021, which established the Coronavirus State Fiscal Recovery Fund, and were appropriated through House Bill 1 of the 2022 Regular Session of the Kentucky General Assembly.

For purposes of the KY eClearinghouse, these funds are listed in the Catalog of Federal Domestic Assistance as ALN 21.027

[Link to eClearinghouse](#)

EXHIBIT 8**COPY OF KENTUCKY DIVISION OF WATER APPROVAL LETTER
FOR
ENGINEER'S PROJECT PLANS & SPECIFICATIONS**

Please check the box below that most closely describes your project. If additional comments need to be made, please provide comments in the blank area below or attach a separate sheet.

- ☐ This project requires DOW approval and the approval letter is attached.
- ☐ This project does not require DOW approval and the approval letter is not applicable.

EXHIBIT 9**THE BID PACKAGE**

Provide a signed copy of each of the following elements of the Bid Package to the Authority within 14 days of bid opening:

- 1) Engineer's Approval of "as-bid" project budget, with Engineer's signature.
- 2) Affidavit of Newspaper Publication with Tear Sheet of Advertisement.
- 3) Certified Bid Tabs with Engineer's seal, number, and signature.

Please check the box below that most closely describes your project. If additional comments need to be made, please provide comments in the blank area below or attach a separate sheet.

- ☐ Procurement for this project requires the project to be bid. The bid package referred to above is attached.
- ☐ Procurement for this project falls under small purchase procurement and requires 3 quotes. The quotes are attached.
- ☐ Procurement for this project falls under a procurement master agreement. The master agreement is attached.
- ☐ Procurement for this project used another procurement type and is described below.

Other Procurement description: _____

EXHIBIT 9A**CLEAR SITE CERTIFICATE – CWP Grantee**

I _____, the Authorized Official of the Northern Kentucky Water District, certifies that the Grantee has acquired all real property, including easements and rights-of-way, that are or will be required for construction, (erection, extension, modification, addition) operation and maintenance of the utility infrastructure project identified above.

I certify that the Grantee will not use Cleaner Water Program Funds for the purchase of real property (including easements) unless the purchase is from a willing seller.

I certify that, if another water or wastewater entity is served by the Project identified above, either the Grantee cited above or the entity to be served has acquired real property including easements and rights-of-way required for the proposed service.

I certify that the Title Attorney's Certification given on the attached certificate covers all real property including easements and rights-of way required for construction, operation and maintenance of the Grantee's project identified above.

I further certify that all real property, including easements required for the Grantee's project identified above, was acquired in accordance with the requirements of the Surface Transportation and Uniform Relocation Assistance Act of 1987 as set forth in 49 CFR Part 24.

Dated this ____ day of _____, 20____

Grantee's Authorized Official

Title (Chairman, Mayor, Commissioner, Manager, Superintendent, etc.)

EXHIBIT 9B**CLEAR SITE CERTIFICATE – Title Attorney**

I, _____, an Attorney at Law, acting as Title Counsel to the Northern Kentucky Water District (the "Grantee"), the owner of the Project cited above, do hereby certify:

1. That I have investigated and ascertained the location of and am familiar with the legal description of the site or sites being provided by the Grantee for all elements of the Project identified above to be constructed (modified, extended, improved, altered) operated and maintained in and upon such site or sites.
2. That I have examined the deed records of the county or counties in which such Project is to be located, and in my opinion the Grantee has a legal and valid fee simple title or such other estate or interest in the site of the Project, including necessary easements and rights-of-way sufficient to assure undisturbed use and possession for the purpose of construction, operation and maintenance for the estimated life of the Project.
3. That any deeds or documents required to be recorded in order to protect the title of the owner and the interest of the Grantee have been duly recorded and filed of record wherever necessary.
4. If applicable, that the title to real property for which the Kentucky Infrastructure Authority funded the cost has been encumbered in accordance with the requirements of State and local law to adequately protect the interest of the Kentucky Infrastructure Authority.
5. Remarks:

Dated this _____ day of _____, 20____.

Attorney at Law: _____

Address: _____

EXHIBIT 10**CERTIFICATION REGARDING UTILITY ACCOUNTING , COST-BASED RATES
AND AUDITING**

I, the Authorized Official of the Northern Kentucky Water District (the "Grantee"), hereby certify that the Grantee agrees, as a condition of its Cleaner Water Program fund award, as follows:

- a) to establish and use a financial accounting system that accounts for the operations of water treatment and distribution separately from all other operations of the Grantee;
- b) to establish service rates based upon the cost of providing the service; and
- c) that the Authority may require an audit to be conducted of the Grantee's utility at least once every two (2) years.

Northern Kentucky Water District

Printed Name of Authorized Official

Signature of Authorized Official

Date

EXHIBIT 11**CERTIFICATE OF PROJECT COMPLETION**

Pursuant to the Grant Assistance Agreement between the Kentucky Infrastructure Authority (the "Authority") and the Northern Kentucky Water District (the "Grantee"), this certificate, signed by the Grantee's Engineer and the Grantee, confirms that the following Project implementation activities are complete.

1. The Project construction has been completed and payment in full has been made to all vendors and/or contractors for labor, services, materials, supplies, machinery, and equipment included in the Project, as appropriate.
2. The Project is complete and is available for the provision of services which are expected to commence on or about _____.
3. A set of Project construction plans, with hand-drawn illustrations and notations reflecting any changes and variances from the original plans, if any, has been delivered to the Project Administrator for use in updating the Water Resources Information System appropriately.

Project Engineer: _____

Date: _____

4. All lands, easements, rights of ways, temporary or permanent permits or other authorizations or clearances as well as necessary constructed structures or facilities in connection with the Project have been acquired, constructed, equipped, and installed and all costs and expenses incurred in connection therewith have been paid in full.

Authorized Official: _____

Project Administrator: _____

Date: _____

GRANT ASSISTANCE AGREEMENT

This Grant Assistance Agreement (the “Agreement”) is made and entered into by and between the Kentucky Infrastructure Authority (the “Authority”), a body corporate and politic, constituting a public corporation and governmental agency and instrumentality of the Commonwealth of Kentucky, and the Northern Kentucky Water District (the “Grantee”), acting herein through its Authorized Official, each a party to this Agreement, which shall be effective upon the date of signing by the Executive Director of the Authority,

W I T N E S S E T H:

WHEREAS, the General Assembly of the Commonwealth of Kentucky, being the duly and legally constituted legislature of Kentucky at its 1988 Regular Session, enacted House Bill 217 amending Chapter 224A of the Kentucky Revised Statutes (the “Act”), creating the “Kentucky Infrastructure Authority” to serve the public purposes identified in the Act; and

WHEREAS, the Authority, attached to the Governor’s Office, is charged pursuant to Section 224A.300 of the Act with coordinating the funding and implementation of infrastructure projects and to this end maintains the Water Resource Information System (the “WRIS”) a comprehensive database of community water and wastewater projects across Kentucky; and

WHEREAS, House Bill 1 of the 2022 Regular Session of the Kentucky General Assembly approved a \$250,000,000 allocation in Federal Funds for Fiscal Year 2023 from the American Rescue Plan Act of 2021/Coronavirus State Fiscal Recovery Fund to the Authority for the Drinking Water and Wastewater Grant Program, known as the Kentucky Cleaner Water Program (the “CWP”), a portion of which funds are the subject of this Agreement; and

WHEREAS, the Grantee now seeks to acquire and construct a project as described in the Grantee’s Project Profile in the WRIS (the “Project”) and the Authority has determined that the Project meets the guidelines of the Cleaner Water Program and the directives of the General Assembly; and

WHEREAS, the Grantee and the Authority desire to enter into this Agreement which sets forth their respective duties, rights, covenants, and obligations with respect to the acquisition and construction of the Project and the application of the proceeds of a grant from the Cleaner Water Program as administered by the Authority.

NOW THEREFORE, in consideration of the mutual covenants and conditions contained herein, the grant hereby effected, and for other good and valuable consideration, the receipt, mutuality and sufficiency of which is hereby acknowledged by the parties hereto, the Authority and the Grantee each agree as follows:

SECTION 1 – DEFINITIONS

All terms utilized herein shall have the same definitions and meaning as ascribed to them in the Act, which Act is hereby incorporated in this Agreement by reference, the same as if set forth herein verbatim; provided, however, that those definitions utilized in the Act having general application are hereby modified in certain instances to apply specifically to the Grantee and its Project.

Act shall mean Chapter 224A of the Kentucky Revised Statutes, as amended (the “KRS”).

Agreement shall mean this Grant Assistance Agreement made and entered into by and between the Grantee and the Authority, as authorized by the Act, providing for a Grant to be made to the Grantee or its approved agent, subject to approval by the Authority.

Area Water Management Council shall mean the entity designated as the regional planning body for the respective counties within an Area Development District in Kentucky, which shall prepare and maintain an **Area Water Management Plan**, listing and prioritizing Project Profiles for water and wastewater projects within that region.

Engineer(s) shall mean the professional engineer or firm of professional engineers properly procured in accord with KRS Chapter 45A and 2 CFR 200.317 through 2 CFR 200.327 (where applicable), as amended, by the Grantee in connection with the Project, as identified in the WRIS Cleaner Water Program Database.

Exhibit shall refer to a specific document, or to the completion of a process or procedure to be accomplished as a prerequisite to release of funds to the Grantee by the Authority.

Grant shall mean that portion of the Kentucky CWP funds made available to the Commonwealth by the American Recovery Program Act and allocated by the Kentucky General Assembly in its 2022 Regular Session, which shall be incrementally transferred under this Agreement from the Commonwealth to the Grantee through Grant Number 22CWW223 in the principal amount of \$2,403,872 for the purpose of defraying the costs incidental to the Project.

Grantee shall mean any unit of local government, or its designated agent, as approved by the Authority, or any special purpose governmental entity within the Commonwealth eligible for funds under the CWP in accordance with the Act, now having been or hereafter being granted the funds for the Project; and for the purposes of this Agreement shall mean the Grantee identified on the front page of this Agreement.

Project shall mean, when used generally, a water, wastewater or other infrastructure project authorized pursuant to the Act, and when used in specific reference to the Grantee’s Project funded by the Authority through the CWP, it shall refer to that

project as described in the Grantee's Project Profile in the WRIS, which has an 8 digit number following the designation WX or SX.

Project Administrator shall mean that individual designated in the Project Profile by that title, who has the capacity and responsibility of supervising the Project and coordinating the preparation of all related documentation on behalf of the Grantee with respect to the Project.

Project Budget shall mean a list of Project expenses and funding sources, in the form set forth in the current Project Profile as set forth in the WRIS.

Project Profile shall mean those specific details of the Project, presented by the Grantee to the respective Area Water Management Council for review and incorporation into the Area Water Management Plan and the WRIS.

System shall mean the utility system owned and operated by the Grantee or the agent of the Grantee, as approved by the Authority, to which the Project shall become a part, and any revenues generated by the Project, which are used to operate and maintain the utility system in the typical manner of a local public utility in Kentucky.

SECTION 2 - OBLIGATIONS OF THE AUTHORITY

The Authority covenants and agrees, conditioned upon the timely performance by the Grantee of its respective obligations, to undertake the following obligations:

- A. The Authority shall review and approve Project related documentation provided by the Grantee. Once the Project is under construction, the Authority shall review requests for payment submitted for payment of costs of the Project. Any deficiencies found in said requests will be reported immediately to the Grantee. If there are no deficiencies in said requests or deficiencies have been resolved satisfactorily by the Grantee, the Authority will approve the requests and disburse grant funds to the Grantee in an amount not to exceed, cumulatively, the approved grant amount for the Project.
- B. The Authority will communicate and cooperate with the Grantee to best assist the Grantee in meeting its obligations set out in this Agreement.

SECTION 3 - OBLIGATIONS OF THE GRANTEE

The Grantee covenants and agrees to undertake the following obligations:

- A. The Grantee shall complete and submit executed copies of all required Exhibits to the Authority, in accordance with the Conditional Commitment Letter instructions.

- B. The Grantee may consider utilizing the option for partial funding set out in Section 6, below. Over the course of the acquisition and construction of the Project, the Grantee shall provide such status reports as may be requested by the Authority, and once the Project is under construction submit periodic requests for payment to the Authority accompanied by copies of invoices for costs incurred in accordance with the Authority's standard draw-down request format.
- C. The Grantee shall perform and/or cause to be performed all necessary acts consistent with all federal and state labor and procurement laws in connection with the planning, design, acquisition and construction of the Project, including: the proper procurement of land, easements and rights of way; professional services, including but not limited to architectural and engineering services; construction contractor(s) services; and the acquisition of necessary equipment and/or materials.
- D. The Grantee shall obtain and keep on file all required permits, licenses and approvals from the appropriate federal, state, and/or local governmental agencies prior to starting construction of the Project.
- E. The Grantee shall comply with all applicable federal and state statutes, executive orders, regulatory requirements, and policies relating to the planning and construction of the Project.
- F. The Grantee shall cooperate fully with the Authority and provide any documentation requested by the Authority in order to facilitate completing the obligations set out in this Agreement.
- G. The Grantee will proceed expeditiously to complete the Project in accordance with the approved final engineering plans and specifications or amendments thereto, prepared by the Project Engineer for the Grantee, if required and as approved by the Authority and other state and federal agencies, as appropriate.
- H. The Grantee agrees that throughout the reasonable life of the infrastructure facilities developed under the Project it will retain ownership of, operate, and maintain these facilities, and all appurtenances thereto, keeping them in good and sound repair and good operating condition at its own expense so that the completed Project will continue to provide the services for which it was designed. Change of ownership or disposal of the Project facilities during their useful life may occur only with written approval of the Authority.
- I. If the Grantee is a local unit of government, city or county, and determines that it is in the best interest of its citizens, it may enter into a memorandum of agreement with a Kentucky corporation to serve as its agent for the implementation and long-term operation and management of the Project, subject to the Agreement. The form and content of such a memorandum of agreement is subject to the prior approval of the Authority.

- J. General Compliance with all Duties. The Grantee shall faithfully and punctually perform all duties with reference to the System required by the American Rescue Plan Act of 2021, and by the terms and provisions of the Act, and this Assistance Agreement.
- K. Further Covenants under the American Rescue Plan Act of 2021. The Grantee shall comply with all further requirements or conditions which may arise from time to time in order to assure compliance with the American Rescue Plan Act of 2021, including but not limited to the following:
1. Records Retention. The Grantee shall provide to the Authority access to all records related to the Project for review in determining compliance with this Agreement and all applicable laws and regulations, including the American Rescue Plan Act of 2021/Coronavirus State Fiscal Recovery Fund. The Grantee shall retain all records, including all invoices, relating to the Project for five (5) years after full execution of the Certificate of Completion.
 2. Single Audit Requirements. Grantees that expend more than \$750,000 in Federal awards during their fiscal year will be subject to an audit under the Single Audit Act and its implementing regulation at 2 CFR Part 200, Subpart F regarding audit requirements. Grantees may also refer to the Office of Management and Budget (OMB) Compliance Supplements for audits of federal funds and related guidance and the Federal Audit Clearinghouse to see examples and single audit submissions.
 3. Civil Rights Compliance. The Grantee is required to meet legal requirements relating to nondiscrimination and nondiscriminatory use of Federal funds. Those requirements include ensuring that entities receiving Federal financial assistance from the U.S. Department of the Treasury do not deny benefits or services, or otherwise discriminate on the basis of race, color, national origin (including limited English proficiency), disability, age, or sex (including sexual orientation and gender identity), in accordance with the following authorities: Title VI of the Civil Rights Act of 1964 (Title VI) Public Law 88-352, 42 U.S.C. 2000d-1 et seq., and the Department's implementing regulations, 31 CFR part 22; Section 504 of the Rehabilitation Act of 1973 (Section 504), Public Law 93-112, as amended by Public Law 93-516, 29 U.S.C. 794; Title IX of the Education Amendments of 1972 (Title IX), 20 U.S.C. 1681 et seq., and the Department's implementing regulations, 31 CFR part 28; Age Discrimination Act of 1975, Public Law 94-135, 42 U.S.C. 6101 et seq., and the Department implementing regulations at 31 CFR part 23.
- L. General. The Grantee shall do and perform or cause to be done and performed all acts and things required to be done or performed by or on behalf of the Grantee under the provisions of the American Rescue Plan Act of 2021 and this Assistance Agreement in accordance with the terms of such provisions.

SECTION 4 - MUTUALITY OF OBLIGATIONS

- A. The parties agree that the funds granted by the Commonwealth to the Grantee are to be used solely for the purposes of the acquisition and construction of the Project. Further, the parties agree that the obligations imposed upon them are for their respective benefit and the timely fulfillment of the obligations set herein are necessary for the Project.
- B. Except as may otherwise be provided herein, the parties to this Agreement shall be solely responsible for any incidental costs incurred in fulfilling their respective obligations under this Agreement and neither party shall have any claim against the other party for reimbursement of incidental costs whether or not a party is in default.

SECTION 5 - TERMS OF AGREEMENT

- A. This Agreement shall be valid only after both parties have duly signed and provided the executed document to the other.
- B. This Agreement may be terminated by either party at any time for cause and may be terminated by either party without cause upon 30 days written notice to the other party. Termination of this Agreement shall not diminish or in any other manner affect any other remedy that may be available to the parties for any breach of the Agreement that occurs prior to the termination.
- C. If, after execution of this Agreement, additional financial assistance is found to be required for the acquisition and construction of the Project and the required additional assistance does or does not become available to the Grantee from any source, the Project may be modified so long as any change in scope and budget is mutually agreed to by the parties to this Agreement, and clearly documented in a revision of the Project Budget within the Project Profile.

SECTION 6 - ADVANCE FUNDING FOR PROJECT PLANNING AND DESIGN

- A. The Grantee may request, in writing, that a portion of the grant funds be disbursed prior to Project bidding to pay up to 50% of the budgeted engineering fee for Project planning and design to the Project Engineer to expedite submission of the Project plans and specifications for review by the Kentucky Division of Water. The balance of the budgeted engineering fee for project planning and design may be paid only after approval of the plans by the Kentucky Division of Water.
- B. It is specifically understood and agreed by the Grantee in the event that the Project has not been advertised for bids within twenty-four (24) months from the date of

signing of this Agreement, for whatever reason, any funds disbursed for Project planning and design are subject to full and immediate repayment by the Grantee to the Authority.

- C. No funds shall be released under this Section until the requirements of Exhibits 1 through 7 of this Agreement have been completed.

SECTION 7. - EVENTS OF DEFAULT AND REMEDIES.

Section 7.1. Events of Default Defined.

The following will be “Events of Default” under this Agreement and the term “Event of Default” or “Default” will mean, whenever it is used in this Agreement, any one or more of the following events:

- A. Any unauthorized or improper expenditure of funds by the Grantee, or expenditure of funds by the Grantee other than in accordance with the terms of this Agreement.
- B. Failure by the Grantee to observe or perform any covenant, condition or agreement on its part to be observed or performed, other than as referred to in subsection (A) of this Section, for a period of thirty (30) days after written notice specifying such failure and requesting that it be remedied will have been given to the Grantee by the Authority unless the Authority agrees in writing to an extension of such time prior to its expiration; provided, however, if the failure stated in the notice cannot be corrected within the applicable period, the Authority will not unreasonably withhold its consent to an extension of such time if corrective action is instituted by the Grantee within the applicable period and diligently pursued until such failure is corrected.
- C. The dissolution or liquidation of the Grantee, or the voluntary initiation by the Grantee of any proceeding under any federal or Kentucky law relating to bankruptcy, insolvency, arrangement, reorganization, readjustment of debt or any other form of debtor relief, or the initiation against the Grantee of any such proceeding which remain undismissed for sixty (60) days, or the entry by the Grantee into an agreement of composition with creditors or the failure generally by the Grantee to pay its debts as they become due.
- D. A default by the Grantee under the provisions of any agreements relating to its debt obligations.

Section 7.2. Remedies on Default.

Whenever any Event of Default referred to in Section 7.1 has occurred and is continuing, the Authority may, without any further demand or notice, take one or any combination of the following remedial steps:

- A. Declare this Agreement void from the beginning without further obligation to the Grantee and may commence appropriate legal action to enforce its rights under this Agreement including action for recovery of funds expended hereunder.
- B. Terminate any remaining grant payments to the Grantee.
- C. Exercise all the rights and remedies of the Authority set forth in the Act.
- D. Take whatever action at law or in equity may appear necessary or desirable to enforce its rights under this Agreement.
- E. Submit a formal referral to the appropriate federal agency.

Section 7.3. No Remedy Exclusive.

No remedy herein conferred upon or reserved to the Authority is intended to be exclusive, and every such remedy will be cumulative and will be in addition to every other remedy given hereunder and every remedy now or hereafter existing at law or in equity. No delay or omission to exercise any right or power accruing upon any default will impair any such right or power and any such right and power may be exercised from time to time and as often as may be deemed expedient.

Section 7.4. Consent to Powers of Authority Under Act.

The Grantee hereby acknowledges to the Authority its understanding of the provisions of the Act, vesting in the Authority certain powers, rights and privileges in respect of the Project upon the occurrence of an Event of Default, and the Grantee hereby covenants and agrees that if the Authority should in the future have recourse to said rights and powers, the Grantee shall take no action of any nature whatsoever calculated to inhibit, nullify, void, delay or render nugatory such actions of the Authority in the due and prompt implementation of this Agreement.

Section 7.5. Waivers.

In the event that any agreement contained herein should be breached by either party and thereafter waived by the other party, such waiver will be limited to the particular breach so waived and will not be deemed to waive any other breach hereunder.

Section 7.6. Agreement to Pay Attorneys' Fees and Expenses.

In the event that either party hereto defaults under any of the provisions hereof and the non-defaulting party employs attorneys or incurs other expenses for the enforcement of

performance or observance of any obligation or agreement on the part of the defaulting party herein contained, the defaulting party agrees that it will pay on demand therefor to the non-defaulting party the fees of such attorneys and such other expenses so incurred by the non-defaulting party.

SECTION 8 - MISCELLANEOUS PROVISIONS

- A. The Grantee may sign this Agreement electronically via a program subject to the approval by the Authority, or manually on a paper copy that is scanned to the portable document format (.pdf) and emailed to the Authority. Transmittal of all other correspondence or documentation, including the required Exhibits identified in the Attachment shall be scanned and attached as a file to email. The Authority and the Grantee, working through the Project Administrator, shall assist each other in securing and maintaining a complete, current Project document file for reference, records, and audit purposes.
- B. The headings set forth in this Agreement are for convenience and the terms contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.
- C. The terms and conditions of this Agreement shall be binding upon and shall inure to the benefit of the successor and assigns, respectively, of the parties. Except for the limited use of a memorandum of agreement (as provided in Section 3 herein), this provision shall not be construed to permit an assignment by any party of any of its rights and duties under this Agreement which assignment shall be prohibited except with the prior written consent of the parties hereto.
- D. This Agreement sets forth the entire understanding of the parties with respect to the subject matter hereof and may be modified only by a written instrument duly executed by each of the parties hereto.
- E. Timely and accurate performance of all actions by the respective parties are mutually recognized by the parties of this Agreement to be of importance to the citizens of the Commonwealth generally, and particularly to those citizens directly affected by the Project.
- F. This Agreement will be governed by and construed in accordance with the laws of the Commonwealth of Kentucky.
- G. The Authority may audit or review all documentation and records of the Grantee relating to this Project pursuant to the provisions of Section 45A.150 of the KRS or any other applicable federal or state law.
- H. The Grantee agrees that the Authority, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other documentation or evidence, which are directly pertinent to this Agreement for the purpose of financial audit or program review.

Furthermore, any books, documents, papers records, or other evidence provided to the Commonwealth, the Finance and Administration Cabinet, the Auditor of Public Accounts, or the Legislative Research Commission, which are directly pertinent to this Agreement, shall be subject to public disclosure regardless of the proprietary nature of the information, unless specific information is identified and exempted and agreed to by the Secretary of the Finance and Administration Cabinet as meeting the provisions of KRS 61.878(1)(c) prior to the execution of this Agreement. The Secretary of the Finance and Administration Cabinet shall not restrict the public release of any information which would otherwise be subject to public release if a state government agency was providing the services.

- I. During the performance of this contract, the Grantee agrees to the following Appendix II to 2 CFR Part 200 contract provisions, as amended:

Equal Employment Opportunity

1. The Grantee will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Grantee will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:
 - a. Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
 - b. The Grantee will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
 - c. The Grantee will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

- d. The Grantee will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- e. The Grantee will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- f. The Grantee will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- g. In the event of the Grantee's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part, and the contractor may be declared ineligible for further government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- h. The Grantee will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a Grantee becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

Contract Work Hours and Safety Standards Act

All contracts that are in excess of \$100,000 and involve the employment of mechanics or laborers must include provisions requiring compliance with the Contract Work Hours and Safety Standards Act as follows:

1. Overtime requirements: No contractor or subcontractor contracting for any part of the Agreement work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such a workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such a workweek.
2. Violation: liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.
3. Withholding for unpaid wages and liquidated damages. The Grantee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.
4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower-tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

Clean Air Act

1. The Grantee agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
2. The Grantee agrees to report each violation to the Authority and understands and agrees that the Authority will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office.

3. The Grantee agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with American Rescue Plan Act funding.

Federal Water Pollution Control Act

1. The Grantee agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
2. The Grantee agrees to report each violation to the Authority and understands and agrees that the Authority will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office.
3. The Grantee agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with American Rescue Plan Act funds.

Debarment and Suspension

Contracts shall not be awarded to parties listed on the governmentwide exclusions in the System for Award Management (SAM) listed at www.sam.gov.

Byrd Anti-Lobbying Amendment

Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier, up to the recipient.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their respective duly authorized officials as of the day and year above written.

**KENTUCKY INFRASTRUCTURE
AUTHORITY**

By: *Richard Detmer* *For Sandy Williams*
Sandy Williams, Executive Director

Date: 07/23/2024

NORTHERN KENTUCKY WATER DISTRICT

By: *Stacey Kampsen*
Authorized Official

Print Name: Stacey Kampsen

**THIS AGREEMENT HAS BEEN EXAMINED
BY:**

By: *Natalie Lile*
**LEGAL COUNSEL TO THE KENTUCKY
INFRASTRUCTURE AUTHORITY**

CWP GRANT CONDITIONS – COMPLIANCE FORMS & EXHIBITS

Note A: Exhibits 1 through 3 must be completed, scanned, and emailed to the Authority on or before the date the Grantee signs the Conditional Commitment Letter. The Conditional Commitment Letter may be signed electronically or manually, then scanned and emailed to the Authority.

- Exhibit 1 Notification to the Authority of completed Review / Update of Project Profile
- Exhibit 2 Confirmation of Grantee Vendor Number – via KY Finance Cabinet Application
- Exhibit 3 Copy of the Transparency Act Reporting Information Form

Note B: Upon receipt of the signed Conditional Commitment Letter and the Authority's verification of Exhibits 1-3, the Authority will forward to the Grantee the Grant Assistance Agreement. The Grantee should proceed to complete Exhibits 4 through 7, scan and send each Exhibit to the Authority by email; and then the Authorized Official may sign the Assistance Agreement, either electronically or by scanning and send attached to email.

- Exhibit 4 A) Grantee Resolution (Accepting Grant, Approving Agreement, Amending Budget, Designating an Authorized Official)
B) Certificate of Recording Officer
- Exhibit 5 Opinion of Legal Counsel Relating to the Grantee Resolution
- Exhibit 6 A) Copy of the Engineering Services Contract; and
B) Grantee & Engineer Fee Confirmation

Note C: The Grantee may request 50% of the engineering design fee (as budgeted in the Project Profile) at this point and may request the balance of the engineering design fee once Exhibit 8 has been sent to the Authority.

- Exhibit 7 Copy of the Kentucky eClearinghouse Endorsement Letter with Comments.
- Exhibit 8 Copy of the DOW Approval Letter of Project Engineering Plans & Specifications.
- Exhibit 9 Copy of the bid package signed by (A) Engineer, (B1) Authorized Official, and (B2) Title Attorney, as appropriate.
- Exhibit 10 Certification Regarding Utility Accounting, Cost-Based Rates and Auditing.
- Exhibit 11 Certificate of Project Completion.



EXHIBIT E-6

**CONDITIONAL COMMITMENT LETTER
AND AGREEMENT - KIA GRANT
22CWW223 SUPPLEMENTAL**



KENTUCKY INFRASTRUCTURE AUTHORITY

Andy Beshear
Governor

100 Airport Road
Frankfort, Kentucky 40601
(502) 573-0260
<https://kia.ky.gov>

Sandy Williams
Executive Director

September 3, 2024

Lindsey Rechtin
Acting Vp of Finance & Support Services/CFO
Northern Kentucky Water District
PO Box 18640
Erlanger, KY 41018

KENTUCKY INFRASTRUCTURE AUTHORITY CONDITIONAL SUPPLEMENTAL COMMITMENT LETTER

KIA Grant Number 22CWW223
WRIS Project Number WX21037311

Dear Official,

Congratulations on receiving an increase to your existing Kentucky Cleaner Water Program (the "CWP") grant funds for your Project! The Kentucky Infrastructure Authority (the "Authority") approved the additional grant funds to the Northern Kentucky Water District (the "Grantee") in the amount of \$340,387 for the Water Main Replacement – Newport and The Ovation project. This brings your total grant award to \$2,744,259. We look forward to working with you to successfully complete your Project! All terms, conditions, and Exhibits previously provided to the Authority by the Grantee for this Grant are incorporated herein by reference. Note that this Conditional Supplemental Commitment Letter, Attachments and Exhibits hereto do not include certain exhibits that were included in your original Conditional Commitment Letter because updated versions of those exhibits are not needed for this supplemental grant. We have left the original Exhibit numbers in place for clarity.

Please be aware that these CWP Grant Project funds are provided through the American Rescue Plan Act of 2021, Coronavirus State Fiscal Recovery Fund and must be obligated by December 31, 2024 and fully expended by December 31, 2026. Any funds not obligated by December 31, 2024 or expended by December 31, 2026 will be forfeited and will not be available for the project.



An Assistance Agreement (or Supplemental Assistance Agreement if your Assistance Agreement is already signed) will be executed between the Authority and the Grantee upon satisfactory performance of the conditions set forth in Attachment A. Funds will be available for disbursement only after execution of the Assistance Agreement and / or Supplemental Assistance Agreement.

During the course of implementing your project, please inform the Authority of any changes in the project scope and financing plan as soon as possible.

We wish you every success for this project, which will benefit both your community and the Commonwealth as a whole.

Sincerely,



Sandy Williams,
Executive Director

Attachments

cc: Jonathan Moor, Project Administrator
Stacey Kampsen, Northern Kentucky Water District
Richard Benjamin Harrison
Jeff Burt, ADD Coordinator
Don Schierer, KIA Grant Analyst
File

Please sign and return a copy of this letter indicating your acknowledgement and acceptance of the commitment and its terms and conditions incorporated by reference and in the Attachments and Exhibits.

Accepted

Date

ATTACHMENT A
GRANT TERMS AND CONDITIONS

Northern Kentucky Water District

The Conditional Supplemental Commitment Letter and a subsequent Assistance Agreement or Supplemental Assistance Agreement (the “AA”) between the Grantee and the Kentucky Infrastructure Authority shall be subject, but not limited, to the timely compliance with the following terms and conditions.

Terms

1. The grant award shall not exceed \$2,744,259 and shall be used solely for the designated project, unless otherwise permitted in writing by the Authority. Any reallocation requests should include signature approval by the original consensus approval group.
2. The grant funds shall be obligated by December 31, 2024. Any grant funds not obligated by December 31, 2024 will not be available for use by the Grantee and will not be available for the project.
3. Grant funds obligated by December 31, 2024 must be expended by the Grantee by December 31, 2026. Any obligated funds not fully expended by December 31, 2026 will not be available for use by the Grantee and will not be available for the project.
4. The grant must be reviewed and approved by the Capital Projects and Bond Oversight Committee of the Kentucky Legislature prior to the Authority’s execution of the AA.
5. The AA must be executed within six (6) months from project bid opening.
6. Grant funds will only be disbursed after execution of the AA as project costs are incurred.
7. All approvals required by the Kentucky Division of Water (DOW), if any, shall be obtained by the Grantee prior to project bid. All approvals required by the Kentucky Public Service Commission, if any, shall be obtained prior to commencement of project construction.
8. All acquisitions of easements or purchases of land shall be completed prior to commencement of construction.
9. CWP grant funds are federal funds. If more than \$750,000 of federal funds including all sources are disbursed to the Grantee in any one fiscal year, the Grantee is required to have a single or program-specific audit conducted for that

year in accordance with 2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

10. If CWP funds are used in conjunction with any other federal funds including but not limited to programs of the EPA, USDA, HUD, CDBG, ARC or other federal agencies, the CWP funds shall comply with these agencies' program requirements, regulations, and laws such as compliance with the Davis-Bacon Act, the Federal Environmental Protection Act and others.
11. SAM.gov Requirements. Grantees are required to have an active registration with the System for Award Management (SAM) (<https://www.sam.gov>).
12. All correspondence and document sharing between the Authority and the Grantee shall be by email and portable document format (.pdf) attached to email.

Conditions

The following is a list of the standard conditions to be satisfied either prior to execution of the AA or incorporated in the AA. The Grantee shall provide completed documentation marked with the corresponding Exhibit Number related to each condition. Forms and document templates for each condition are provided in Attachment C. All required documentation must be submitted to the staff member of the Authority assigned to the Grantee.

1. The Project Profile (WX21037311) shall be updated to accurately reflect project data, including the budget and mapping information, effective as of the date certified in **Exhibit 1**.

Documentation of final funding commitments from all parties other than the Authority as identified on the Project Budget (Attachment B) and in the Budget Tab of the updated Project Profile shall be provided prior to execution of the AA and disbursement of grant funds. Any subsequent changes in the anticipated project funding shall be immediately reported to the Authority and may cause this grant to be subject to further consideration.

Exhibit 1 must be completed and returned to the Authority with this signed Conditional Supplemental Commitment Letter.

After providing the Authority with the signed Conditional Supplemental Commitment Letter and Exhibit 1, the Authority will forward to the Grantee the AA. Upon completion by the Grantee of Exhibits 4 and 5, the Authorized Official shall sign the AA and forward the Exhibits, with supporting documentation, and the signed AA to the Authority for execution.

2. After receiving the AA: At an official meeting of its governing body, the Grantee shall approve acceptance of the Grant and the AA, amend its annual budget accordingly, and designate an Authorized Official to sign all appropriate documents. The resolution and the certificate of Recording Officer are submitted as **Exhibit 4**.
3. After receiving the AA: Legal Counsel for the Grantee must provide an opinion to the Authority as to the legality of Grantee accepting the grant and approving the AA as **Exhibit 5**.

ATTACHMENT B
PROJECT BUDGET

CWP PROJECT BUDGET

Project Title: Water Main Replacement – Newport
and The Ovation

WRIS#: WX21037311

Project Budget: Estimated

enter date

As Bid

enter date

Revised

enter date

Cost Classification		CWP Grant 22CWW22 3	Funding Source 1	Funding Source 2	Funding Source 3	Funding Source 4	Funding Source 5	Local Funds	Unfunded Costs	Total
1	Administrative Expenses									
2	Legal Expenses									
3	Land, Appraisals, Easements									
4	Relocation Expense & Payments									
5	Planning									
6	Engineering Fees - Design									
7	Engineering Fees - Construction									
8	Engineering Fees - Inspection									
9	Engineering Fees - Other									
10	Construction									
11	Equipment									
12	Miscellaneous									
13	Contingencies									
	Total									

Funding Sources		Amount	Date Committed
1			
2			
3			
4			
5			
	Total		

Local Funding Sources		Amount	Date Committed
1			
2			
	Total		

Total Funding

-

Construction Cost Categories	Funding Source	Total Cost
Treatment		
Transmission and Distribution		
Transmission and Distribution – Lead Remediation		
Source		
Storage		
Purchase of Systems		
Restructuring		
Land Acquisition		
TOTAL CONSTRUCTION COSTS		

ATTACHMENT C

CWP GRANT CONDITIONS – COMPLIANCE FORMS & EXHIBITS

Note A: Exhibit 1 must be completed, signed electronically or manually, then scanned and emailed to THE AUTHORITY with the Grantee's signed Conditional Supplemental Commitment Letter.

Exhibit 1 Notification to The Authority of completed Review / Update of Project Profile

Note B: Upon receipt of the signed Conditional Supplemental Commitment Letter, the Authority's verification of Exhibit 1, and approval by the Capital Projects and Bond Oversight Committee (CPBOC), the Authority will forward to the Grantee the AA. AFTER receiving the AA, the Grantee should complete Exhibits 4 and 5. Then the Authorized Official may sign the AA and email it to the Authority with Exhibits 4 and 5.

Exhibit 4 Grantee Resolution (Accepting Grant, Approving AA, Amending Budget, Designating an Authorized Official) and Certificate of Recording Officer

Exhibit 5 Opinion of Legal Counsel Relating to the Grantee Resolution

EXHIBIT 1

CERTIFICATION OF PROJECT PROFILE REVIEW & UPDATE

The Project Profile was reviewed and updated in the Water Resource Information System
as of _____ by the Grantee's Authorized Official and Project Administrator.

(date)

Project Administrator: _____

Grant Number: 22CWW223

EXHIBIT 4**RESOLUTION****RESOLUTION OF THE NORTHERN KENTUCKY WATER DISTRICT
ACCEPTING THE SUPPLEMENTAL GRANT, APPROVING THE GRANT
ASSISTANCE AGREEMENT [or the GRANT SUPPLEMENTAL
ASSISTANCE AGREEMENT], AUTHORIZING THE AMENDMENT OF
THE NORTHERN KENTUCKY WATER DISTRICT'S ANNUAL BUDGET,
AND AUTHORIZING A REPRESENTATIVE TO SIGN ALL RELATED
DOCUMENTS**

WHEREAS, the Kentucky General Assembly has appropriated funds for infrastructure projects in Senate Bill 36 of the 2021 Regular Session of the Kentucky General Assembly and in House Bill 1 of the 2022 Regular Session of the Kentucky General Assembly for the Cleaner Water Program; and

WHEREAS, the Northern Kentucky Water District (the "Grantee") has previously determined that it is in the public interest to acquire and construct certain facilities and improvements to the Grantee's utility system (the "Project"); and

WHEREAS, the Grantee desires funding from the Kentucky Infrastructure Authority (the "Authority") for the purpose of acquisition and construction of the Project; and

WHEREAS, in order to obtain a supplemental grant from the Cleaner Water Program for the Project, and administered by the Authority, the Grantee is required to enter into a supplemental assistance agreement (the "Agreement") with the Authority.

NOW, THEREFORE, BE IT RESOLVED by the governing body of the Northern Kentucky Water District as follows:

SECTION 1. The Grantee hereby accepts the grant award and approves the Agreement between the Grantee and the Authority to provide the additional funds to the Grantee for the Project.

SECTION 2. That _____, and any Successors-in-Title, is hereby designated to be the Grantee's "Authorized Official" for this Project and is hereby directed and empowered by the Grantee to execute the Agreement, related documents and agreements, and to otherwise act on behalf of the Grantee to effect such grant award, and to engage a qualified Project Administrator.

SECTION 3. That the Grantee hereby agrees and commits to include, by amendment to its annual budget and audit process, the receipts and expenditures of funds subject to the Agreement up to and including the date of Project closeout.

SECTION 4. That this resolution shall take effect at the earliest time provided by law.

ADOPTED on _____, 202____.

**NORTHERN KENTUCKY WATER
DISTRICT**

Authorized Signatory

CERTIFICATE OF RECORDING OFFICER

I, the undersigned, hereby certify that I am the duly qualified and acting Secretary/Clerk of the Grantee, and that the foregoing is a full, true and correct copy of a Resolution adopted by the governing body of said Grantee at a meeting duly held on _____, 202____; and that this official action appears as a matter of public record in the official records or journal of the Grantee; and that said meeting was held in accordance with all applicable requirements of Kentucky law, including Sections 61.810, 61.815, 61.820 and 61.823 of the Kentucky Revised Statutes; and that a quorum was present at the meeting; and that this official action has not been modified, amended, revoked or repealed and is now in full force and effect.

IN TESTIMONY WHEREOF, witness my signature, below, on _____
_____, 202_____.

Secretary/Clerk

EXHIBIT 5

**OPINION OF LEGAL COUNSEL
RELATING TO GRANTEE RESOLUTION**

(Content below to be placed on letterhead of Legal Counsel for Grantee)

(Date)

Kentucky Infrastructure Authority
100 Airport Road, Third Floor
Frankfort, Kentucky 40601

RE: Grant Assistance Agreement [or Grant Supplemental Assistance Agreement] by
and between Kentucky Infrastructure Authority and Grantee, dated as of
_____, 202__.

Ms. Sandy Williams:

The undersigned is an attorney at law duly admitted to the practice of law in the Commonwealth of Kentucky and serves as legal counsel to the Northern Kentucky Water District, hereinafter referred to as the "Grantee". I am familiar with the organizational structure and operations of the Grantee and the laws of the Commonwealth applicable thereto. Additionally, I am familiar with the utility infrastructure project (the "Project") for which the Grant Assistance Agreement [or Grant Supplemental Assistance Agreement] (the "Agreement") between the Kentucky Infrastructure Authority (the "Authority") and the Grantee is being authorized, executed and delivered.

I have reviewed the form of Agreement by and between the Authority and the Grantee and the legislation of the governing body authorizing the execution and delivery of said Agreement.

Based upon my review I am of the opinion that:

1) The Grantee is a (unit of local government, or a special purpose governmental entity or a corporation) of the Commonwealth of Kentucky duly organized and validly existing under the Constitution and statutes of the Commonwealth of Kentucky.

2) The Agreement has been duly executed and delivered by the Grantee and is a valid and binding obligation of the Grantee, enforceable in accordance with its terms, except to the extent that the enforceability thereof may be limited by equitable principles and by bankruptcy, reorganization, moratorium, insolvency, or similar laws heretofore or

hereafter enacted relating to or affecting the enforcement of creditors' rights or remedies generally.

3) The Grantee has all necessary power and authority (i) to enter into, perform and consummate all transactions contemplated by the Agreement, and (ii) to execute and deliver the documents and instruments to be executed and delivered by it in connection with the construction of the Project.

4) The execution and delivery of the Agreement and the performance by the Grantee of its obligations thereunder does not and will not conflict with, violate, or constitute a default under any court or administrative order, decree or ruling, or any law, statute, ordinance or regulation, or any agreement, indenture, mortgage, lease, note or other obligation or instrument, binding upon the Grantee, or any of its properties or assets.

5) To the best of my knowledge after due inquiry there is no action, suit, proceedings or investigation at law or in equity before any court, public board or body pending or threatened against, affecting or questioning (i) the valid existence of the Grantee, (ii) the right or title of the members and officers of Grantee to their respective positions, (iii) the authorization, execution, delivery or enforceability of the Agreement or the application of any monies or security therefore, (iv) the construction of the Project, or (v) that would have a material adverse impact on the ability of the Grantee to perform its obligations under the Agreement.

6) None of the proceedings or authority heretofore had or taken by the Grantee for the authorization, execution or delivery of the Agreement has or have been repealed, rescinded, or revoked.

7) All proceedings and actions of the Grantee with respect to which the Agreement is to be delivered were in place or taken at meetings properly convened and held in substantial compliance with the applicable provisions of Sections 61.805 to 61.850 of the Kentucky Revised Statutes.

Respectfully,

AMENDED AND RESTATED SUPPLEMENTAL GRANT ASSISTANCE AGREEMENT

This AMENDED AND RESTATED SUPPLEMENTAL Grant Assistance Agreement (the “Agreement”) is made and entered into by and between the Kentucky Infrastructure Authority (the “Authority”), a body corporate and politic, constituting a public corporation and governmental agency and instrumentality of the Commonwealth of Kentucky, and the Northern Kentucky Water District (the “Grantee”), acting herein through its Authorized Official, each a party to this Agreement, which shall be effective upon the date of signing by the Executive Director of the Authority,

W I T N E S S E T H:

WHEREAS, the General Assembly of the Commonwealth of Kentucky, being the duly and legally constituted legislature of Kentucky at its 1988 Regular Session, enacted House Bill 217 amending Chapter 224A of the Kentucky Revised Statutes (the “Act”), creating the “Kentucky Infrastructure Authority” to serve the public purposes identified in the Act; and

WHEREAS, the Authority, attached to the Governor’s Office, is charged pursuant to Section 224A.300 of the Act with coordinating the funding and implementation of infrastructure projects and to this end maintains the Water Resource Information System (the “WRIS”) a comprehensive database of community water and wastewater projects across Kentucky; and

WHEREAS, Senate Bill 36 of the 2021 Regular Session of the Kentucky General Assembly approved a \$250,000,000 allocation in Federal Funds for Fiscal Year 2021 from the American Rescue Plan Act of 2021/Coronavirus State Fiscal Recovery Fund to the Authority for the Drinking Water and Wastewater Grant Program, known as the Kentucky Cleaner Water Program (the “CWP”), and House Bill 1 of the 2022 Regular Session of the Kentucky General Assembly approved another \$250,000,000 allocation in Federal Funds for Fiscal Year 2022 from the American Rescue Plan Act of 2021/Coronavirus State Fiscal Recovery Fund to the Authority for the CWP, a portion of which funds are the subject of this Agreement; and

WHEREAS, the Grantee is acquiring and constructing a project as described in the Grantee’s Project Profile in the WRIS (the “Project”) and the Authority has determined that the Project meets the guidelines of the Cleaner Water Program and the directives of the General Assembly;

WHEREAS, the Grantee and the Authority previously entered into that certain Grant Assistance Agreement dated July 23, 2024 (the “Original Agreement”); and now wish to amend and restate the Original Agreement in its entirety by their adoption of this Agreement for the purpose of increasing the amount of the Grant (as defined below); and

WHEREAS, the Grantee and the Authority desire to enter into this Agreement which sets forth and revises their respective duties, rights, covenants, and obligations

with respect to the acquisition and construction of the Project and the application of the proceeds of a grant, as increased hereunder, from the Cleaner Water Program as administered by the Authority.

NOW THEREFORE, in consideration of the mutual covenants and conditions contained herein, the grant hereby effected, and for other good and valuable consideration, the receipt, mutuality and sufficiency of which is hereby acknowledged by the parties hereto, the Authority and the Grantee each agree as follows:

SECTION 1 – DEFINITIONS

All terms utilized herein shall have the same definitions and meaning as ascribed to them in the Act, which Act is hereby incorporated in this Agreement by reference, the same as if set forth herein verbatim; provided, however, that those definitions utilized in the Act having general application are hereby modified in certain instances to apply specifically to the Grantee and its Project.

Act shall mean Chapter 224A of the Kentucky Revised Statutes, as amended (the “KRS”).

Agreement shall mean this Amended and Restated Supplemental Grant Assistance Agreement made and entered into by and between the Grantee and the Authority, as authorized by the Act, providing for a Grant to be made to the Grantee or its approved agent, subject to approval by the Authority.

Area Water Management Council shall mean the entity designated as the regional planning body for the respective counties within an Area Development District in Kentucky, which shall prepare and maintain an Area Water Management Plan, listing and prioritizing Project Profiles for water and wastewater projects within that region.

Engineer(s) shall mean the professional engineer or firm of professional engineers properly procured in accord with KRS Chapter 45A and 2 CFR 200.317 through 2 CFR 200.327 (where applicable), as amended, by the Grantee in connection with the Project, as identified in the WRIS Cleaner Water Program Database.

Exhibit shall refer to a specific document, or to the completion of a process or procedure to be accomplished as a prerequisite to release of funds to the Grantee by the Authority.

Grant shall mean that portion of the Kentucky CWP funds made available to the Commonwealth by the American Recovery Program Act and allocated by the Kentucky General Assembly in its 2021 and 2022 Regular Sessions, which shall be incrementally transferred under this Agreement from the Commonwealth to the Grantee through Grant Number 22CWW223 in the principal amount of \$2,744,259 for the purpose of defraying the costs incidental to the Project.

Grantee shall mean any unit of local government, or its designated agent, as approved by the Authority, or any special purpose governmental entity within the Commonwealth eligible for funds under the CWP in accordance with the Act, now having been or hereafter being granted the funds for the Project; and for the purposes of this Agreement shall mean the Grantee identified on the front page of this Agreement.

Project shall mean, when used generally, a water, wastewater or other infrastructure project authorized pursuant to the Act, and when used in specific reference to the Grantee's Project funded by the Authority through the CWP, it shall refer to that project as described in the Grantee's Project Profile in the WRIS, which has an 8 digit number following the designation WX or SX.

Project Administrator shall mean that individual designated in the Project Profile by that title, who has the capacity and responsibility of supervising the Project and coordinating the preparation of all related documentation on behalf of the Grantee with respect to the Project.

Project Budget shall mean a list of Project expenses and funding sources, in the form set forth in the current Project Profile as set forth in the WRIS.

Project Profile shall mean those specific details of the Project, presented by the Grantee to the respective Area Water Management Council for review and incorporation into the Area Water Management Plan and the WRIS.

System shall mean the utility system owned and operated by the Grantee or the agent of the Grantee, as approved by the Authority, to which the Project shall become a part, and any revenues generated by the Project, which are used to operate and maintain the utility system in the typical manner of a local public utility in Kentucky.

SECTION 2 - OBLIGATIONS OF THE AUTHORITY

The Authority covenants and agrees, conditioned upon the timely performance by the Grantee of its respective obligations, to undertake the following obligations:

- A. The Authority shall review and approve Project related documentation provided by the Grantee. Once the Project is under construction, the Authority shall review requests for payment submitted for payment of costs of the Project. Any deficiencies found in said requests will be reported immediately to the Grantee. If there are no deficiencies in said requests or deficiencies have been resolved satisfactorily by the Grantee, the Authority will approve the requests and disburse grant funds to the Grantee in an amount not to exceed, cumulatively, the approved grant amount for the Project.
- B. The Authority will communicate and cooperate with the Grantee to best assist the Grantee in meeting its obligations set out in this Agreement.

SECTION 3 - OBLIGATIONS OF THE GRANTEE

The Grantee covenants and agrees to undertake the following obligations:

- A. The Grantee shall complete and submit executed copies of all required Exhibits to the Authority, in accordance with the Conditional Commitment Letter and Supplemental Conditional Commitment Letter instructions.
- B. The Grantee may consider utilizing the option for partial funding set out in Section 6, below. Over the course of the acquisition and construction of the Project, the Grantee shall provide such status reports as may be requested by the Authority, and once the Project is under construction submit periodic requests for payment to the Authority accompanied by copies of invoices for costs incurred in accordance with the Authority's standard draw-down request format.
- C. The Grantee shall perform and/or cause to be performed all necessary acts consistent with all federal and state labor and procurement laws in connection with the planning, design, acquisition and construction of the Project, including: the proper procurement of land, easements and rights of way; professional services, including but not limited to architectural and engineering services; construction contractor(s) services; and the acquisition of necessary equipment and/or materials.
- D. The Grantee shall obtain and keep on file all required permits, licenses and approvals from the appropriate federal, state, and/or local governmental agencies prior to starting construction of the Project.
- E. The Grantee shall comply with all applicable federal and state statutes, executive orders, regulatory requirements, and policies relating to the planning and construction of the Project.
- F. The Grantee shall cooperate fully with the Authority and provide any documentation requested by the Authority in order to facilitate completing the obligations set out in this Agreement.
- G. The Grantee will proceed expeditiously to complete the Project in accordance with the approved final engineering plans and specifications or amendments thereto, prepared by the Project Engineer for the Grantee, if required and as approved by the Authority and other state and federal agencies, as appropriate.
- H. The Grantee agrees that throughout the reasonable life of the infrastructure facilities developed under the Project it will retain ownership of, operate, and maintain these facilities, and all appurtenances thereto, keeping them in good and sound repair and good operating condition at its own expense so that the completed Project will continue to provide the services for which it was designed.

Change of ownership or disposal of the Project facilities during their useful life may occur only with written approval of the Authority.

- I. If the Grantee is a local unit of government, city or county, and determines that it is in the best interest of its citizens, it may enter into a memorandum of agreement with a Kentucky corporation to serve as its agent for the implementation and long term operation and management of the Project, subject to the Agreement. The form and content of such a memorandum of agreement is subject to the prior approval of the Authority.
- J. General Compliance with all Duties. The Grantee shall faithfully and punctually perform all duties with reference to the System required by the American Rescue Plan Act of 2021, and by the terms and provisions of the Act, and this Assistance Agreement.
- K. Further Covenants under the American Rescue Plan Act of 2021. The Grantee shall comply with all further requirements or conditions which may arise from time to time in order to assure compliance with the American Rescue Plan Act of 2021, including but not limited to the following:
 1. Records Retention. The Grantee shall provide to the Authority access to all records related to the Project for review in determining compliance with this Agreement and all applicable laws and regulations, including the American Rescue Plan Act of 2021/Coronavirus State Fiscal Recovery Fund. The Grantee shall retain all records, including all invoices, relating to the Project for five (5) years after full execution of the Certificate of Completion.
 2. Single Audit Requirements. Grantees that expend more than \$750,000 in Federal awards during their fiscal year will be subject to an audit under the Single Audit Act and its implementing regulation at 2 CFR Part 200, Subpart F regarding audit requirements. Grantees may also refer to the Office of Management and Budget (OMB) Compliance Supplements for audits of federal funds and related guidance and the Federal Audit Clearinghouse to see examples and single audit submissions.
 3. Civil Rights Compliance. The Grantee is required to meet legal requirements relating to nondiscrimination and nondiscriminatory use of Federal funds. Those requirements include ensuring that entities receiving Federal financial assistance from the U.S. Department of the Treasury do not deny benefits or services, or otherwise discriminate on the basis of race, color, national origin (including limited English proficiency), disability, age, or sex (including sexual orientation and gender identity), in accordance with the following authorities: Title VI of the Civil Rights Act of 1964 (Title VI) Public Law 88-352, 42 U.S.C. 2000d-1 et seq., and the Department's implementing regulations, 31 CFR part 22; Section 504 of the Rehabilitation Act of 1973 (Section 504), Public Law 93-112, as amended by Public Law 93-516, 29 U.S.C. 794; Title IX of the Education Amendments of 1972 (Title IX), 20 U.S.C. 1681 et seq., and the

Department's implementing regulations, 31 CFR part 28; Age Discrimination Act of 1975, Public Law 94-135, 42 U.S.C. 6101 et seq., and the Department implementing regulations at 31 CFR part 23.

- L. General. The Grantee shall do and perform or cause to be done and performed all acts and things required to be done or performed by or on behalf of the Grantee under the provisions of the American Rescue Plan Act of 2021 and this Assistance Agreement in accordance with the terms of such provisions.

SECTION 4 - MUTUALITY OF OBLIGATIONS

- A. The parties agree that the funds granted by the Commonwealth to the Grantee are to be used solely for the purposes of the acquisition and construction of the Project. Further, the parties agree that the obligations imposed upon them are for their respective benefit and the timely fulfillment of the obligations set herein are necessary for the Project.
- B. Except as may otherwise be provided herein, the parties to this Agreement shall be solely responsible for any incidental costs incurred in fulfilling their respective obligations under this Agreement and neither party shall have any claim against the other party for reimbursement of incidental costs whether or not a party is in default.

SECTION 5 - TERMS OF AGREEMENT

- A. This Agreement shall be valid only after both parties have duly signed and provided the executed document to the other.
- B. This Agreement may be terminated by either party at any time for cause and may be terminated by either party without cause upon 30 days written notice to the other party. Termination of this Agreement shall not diminish or in any other manner affect any other remedy that may be available to the parties for any breach of the Agreement that occurs prior to the termination.
- C. If, after execution of this Agreement, additional financial assistance is found to be required for the acquisition and construction of the Project and the required additional assistance does or does not become available to the Grantee from any source, the Project may be modified so long as any change in scope and budget is mutually agreed to by the parties to this Agreement, and clearly documented in a revision of the Project Budget within the Project Profile.

SECTION 6 - ADVANCE FUNDING FOR PROJECT PLANNING AND DESIGN

- A. The Grantee may request, in writing, that a portion of the grant funds be disbursed prior to Project bidding to pay up to 50% of the budgeted engineering fee for Project planning and design to the Project Engineer to expedite submission of the Project plans and specifications for review by the Kentucky Division of Water. The balance of the budgeted engineering fee for project planning and design may be paid only after approval of the plans by the Kentucky Division of Water.
- B. It is specifically understood and agreed by the Grantee in the event that the Project has not been advertised for bids within twenty-four (24) months from the date of signing of the Original Agreement, for whatever reason, any funds disbursed for Project planning and design are subject to full and immediate repayment by the Grantee to the Authority.
- C. No funds shall be released under this Section until the requirements of Exhibits 1 through 7 of this Agreement have been completed.

SECTION 7. - EVENTS OF DEFAULT AND REMEDIES.

Section 7.1. Events of Default Defined.

The following will be "Events of Default" under this Agreement and the term "Event of Default" or "Default" will mean, whenever it is used in this Agreement, any one or more of the following events:

- A. Any unauthorized or improper expenditure of funds by the Grantee, or expenditure of funds by the Grantee other than in accordance with the terms of this Agreement.
- B. Failure by the Grantee to observe or perform any covenant, condition or agreement on its part to be observed or performed, other than as referred to in subsection (A) of this Section, for a period of thirty (30) days after written notice specifying such failure and requesting that it be remedied will have been given to the Grantee by the Authority unless the Authority agrees in writing to an extension of such time prior to its expiration; provided, however, if the failure stated in the notice cannot be corrected within the applicable period, the Authority will not unreasonably withhold its consent to an extension of such time if corrective action is instituted by the Grantee within the applicable period and diligently pursued until such failure is corrected.
- C. The dissolution or liquidation of the Grantee, or the voluntary initiation by the Grantee of any proceeding under any federal or Kentucky law relating to bankruptcy, insolvency, arrangement, reorganization, readjustment of debt or any other form of debtor relief, or the initiation against the Grantee of any such

proceeding which remain undismissed for sixty (60) days, or the entry by the Grantee into an agreement of composition with creditors or the failure generally by the Grantee to pay its debts as they become due.

- D. A default by the Grantee under the provisions of any agreements relating to its debt obligations.

Section 7.2. Remedies on Default.

Whenever any Event of Default referred to in Section 7.1 has occurred and is continuing, the Authority may, without any further demand or notice, take one or any combination of the following remedial steps:

- A. Declare this Agreement void from the beginning without further obligation to the Grantee and may commence appropriate legal action to enforce its rights under this Agreement including action for recovery of funds expended hereunder.
- B. Terminate any remaining grant payments to the Grantee.
- C. Exercise all the rights and remedies of the Authority set forth in the Act.
- D. Take whatever action at law or in equity may appear necessary or desirable to enforce its rights under this Agreement.
- E. Submit a formal referral to the appropriate federal agency.

Section 7.3. No Remedy Exclusive.

No remedy herein conferred upon or reserved to the Authority is intended to be exclusive, and every such remedy will be cumulative and will be in addition to every other remedy given hereunder and every remedy now or hereafter existing at law or in equity. No delay or omission to exercise any right or power accruing upon any default will impair any such right or power and any such right and power may be exercised from time to time and as often as may be deemed expedient.

Section 7.4. Consent to Powers of Authority Under Act.

The Grantee hereby acknowledges to the Authority its understanding of the provisions of the Act, vesting in the Authority certain powers, rights and privileges in respect of the Project upon the occurrence of an Event of Default, and the Grantee hereby covenants and agrees that if the Authority should in the future have recourse to said rights and powers, the Grantee shall take no action of any nature whatsoever calculated to inhibit,

nullify, void, delay or render nugatory such actions of the Authority in the due and prompt implementation of this Agreement.

Section 7.5. Waivers.

In the event that any agreement contained herein should be breached by either party and thereafter waived by the other party, such waiver will be limited to the particular breach so waived and will not be deemed to waive any other breach hereunder.

Section 7.6. Agreement to Pay Attorneys' Fees and Expenses.

In the event that either party hereto defaults under any of the provisions hereof and the non-defaulting party employs attorneys or incurs other expenses for the enforcement of performance or observance of any obligation or agreement on the part of the defaulting party herein contained, the defaulting party agrees that it will pay on demand therefor to the non-defaulting party the fees of such attorneys and such other expenses so incurred by the non-defaulting party.

SECTION 8 - MISCELLANEOUS PROVISIONS

- A. The Grantee may sign this Agreement electronically via a program subject to the approval by the Authority, or manually on a paper copy that is scanned to the portable document format (.pdf) and emailed to the Authority. Transmittal of all other correspondence or documentation, including the required Exhibits identified in the Attachment shall be scanned and attached as a file to email. The Authority and the Grantee, working through the Project Administrator, shall assist each other in securing and maintaining a complete, current Project document file for reference, records, and audit purposes.
- B. The headings set forth in this Agreement are for convenience and the terms contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.
- C. The terms and conditions of this Agreement shall be binding upon and shall inure to the benefit of the successor and assigns, respectively, of the parties. Except for the limited use of a memorandum of agreement (as provided in Section 3 herein), this provision shall not be construed to permit an assignment by any party of any of its rights and duties under this Agreement which assignment shall be prohibited except with the prior written consent of the parties hereto.
- D. This Agreement sets forth the entire understanding of the parties with respect to the subject matter hereof and may be modified only by a written instrument duly executed by each of the parties hereto.
- E. Timely and accurate performance of all actions by the respective parties are mutually recognized by the parties of this Agreement to be of importance to the citizens of the Commonwealth generally, and particularly to those citizens directly affected by the Project.

- F. This Agreement will be governed by and construed in accordance with the laws of the Commonwealth of Kentucky.
- G. The Authority may audit or review all documentation and records of the Grantee relating to this Project pursuant to the provisions of Section 45A.150 of the KRS or any other applicable federal or state law.
- H. The Grantee agrees that the Authority, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other documentation or evidence, which are directly pertinent to this Agreement for the purpose of financial audit or program review. Furthermore, any books, documents, papers records, or other evidence provided to the Commonwealth, the Finance and Administration Cabinet, the Auditor of Public Accounts, or the Legislative Research Commission, which are directly pertinent to this Agreement, shall be subject to public disclosure regardless of the proprietary nature of the information, unless specific information is identified and exempted and agreed to by the Secretary of the Finance and Administration Cabinet as meeting the provisions of KRS 61.878(1)(c) prior to the execution of this Agreement. The Secretary of the Finance and Administration Cabinet shall not restrict the public release of any information which would otherwise be subject to public release if a state government agency was providing the services.
- I. This Agreement amends, supplements, and replaces the Original Agreement in its entirety effective as of the date of execution by the Executive Director of the Authority on the signature page hereof. The Original Agreement shall continue to govern the relationship of the parties hereto with respect to the Grant and other matters set out herein and in the Original Agreement for the period beginning from the effective date of the Original Agreement to, but excluding, the effective date of this Agreement.
- J. During the performance of this contract, the Grantee agrees to the following Appendix II to 2 CFR Part 200 contract provisions, as amended:

Equal Employment Opportunity

- 1. The Grantee will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Grantee will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:
 - a. Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The

contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

- b. The Grantee will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- c. The Grantee will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
- d. The Grantee will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- e. The Grantee will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- f. The Grantee will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- g. In the event of the Grantee's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part, and the contractor may be declared ineligible for further government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- h. The Grantee will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every

subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a Grantee becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

Contract Work Hours and Safety Standards Act

All contracts that are in excess of \$100,000 and involve the employment of mechanics or laborers must include provisions requiring compliance with the Contract Work Hours and Safety Standards Act as follows:

1. Overtime requirements: No contractor or subcontractor contracting for any part of the Agreement work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such a workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such a workweek.
2. Violation: liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.
3. Withholding for unpaid wages and liquidated damages. The Grantee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums

as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower-tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

Clean Air Act

1. The Grantee agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
2. The Grantee agrees to report each violation to the Authority and understands and agrees that the Authority will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office.
3. The Grantee agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with American Rescue Plan Act funding.

Federal Water Pollution Control Act

1. The Grantee agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
2. The Grantee agrees to report each violation to the Authority and understands and agrees that the Authority will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office.
3. The Grantee agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with American Rescue Plan Act funds.

Debarment and Suspension

Contracts shall not be awarded to parties listed on the governmentwide exclusions in the System for Award Management (SAM) listed at www.sam.gov.

Byrd Anti-Lobbying Amendment

Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not

used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier, up to the recipient.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their respective duly authorized officials as of the day and year above written.

**KENTUCKY INFRASTRUCTURE
AUTHORITY**

By:  *For Sandy Williams*
Sandy Williams, Executive Director

Date: 10/23/2024

NORTHERN KENTUCKY WATER DISTRICT

By: 
Authorized Official

Print Name: Stacey Kampsen

**THIS AGREEMENT HAS BEEN EXAMINED
BY:**

By: 
**LEGAL COUNSEL TO THE KENTUCKY
INFRASTRUCTURE AUTHORITY**

CWP GRANT CONDITIONS – COMPLIANCE FORMS & EXHIBITS

Note A: Exhibits 1 through 3 must be completed, scanned, and emailed to the Authority on or before the date the Grantee signs the Conditional Commitment Letter. The Conditional Commitment Letter may be signed electronically or manually, then scanned and emailed to the Authority.

- Exhibit 1 Notification to the Authority of completed Review / Update of Project Profile
- Exhibit 2 Confirmation of Grantee Vendor Number – via KY Finance Cabinet Application
- Exhibit 3 Copy of the Transparency Act Reporting Information Form

Note B: Upon receipt of the signed Conditional Commitment Letter and the Authority's verification of Exhibits 1-3, the Authority will forward to the Grantee the Grant Assistance Agreement. The Grantee should proceed to complete Exhibits 4 through 7, scan and send each Exhibit to the Authority by email; and then the Authorized Official may sign the Assistance Agreement, either electronically or by scanning and send attached to email.

- Exhibit 4 A) Grantee Resolution (Accepting Grant, Approving Agreement, Amending Budget, Designating an Authorized Official)
B) Certificate of Recording Officer
- Exhibit 5 Opinion of Legal Counsel Relating to the Grantee Resolution
- Exhibit 6 A) Copy of the Engineering Services Contract; and
B) Grantee & Engineer Fee Confirmation

Note C: The Grantee may request 50% of the engineering design fee (as budgeted in the Project Profile) at this point and may request the balance of the engineering design fee once Exhibit 8 has been sent to the Authority.

- Exhibit 7 Copy of the Kentucky eClearinghouse Endorsement Letter with Comments.
- Exhibit 8 Copy of the DOW Approval Letter of Project Engineering Plans & Specifications.
- Exhibit 9 Copy of the bid package signed by (A) Engineer, (B1) Authorized Official, and (B2) Title Attorney, as appropriate.
- Exhibit 10 Certification Regarding Utility Accounting, Cost-Based Rates and Auditing.
- Exhibit 11 Certificate of Project Completion.

CWP SUPPLEMENTAL GRANT CONDITIONS – COMPLIANCE FORMS & EXHIBITS

Note A: Exhibit 1S must be completed, scanned, and emailed to the Authority on or before the date the Grantee signs the Supplemental Conditional Commitment Letter. The Supplemental Conditional Commitment Letter may be signed electronically or manually, then scanned and emailed to the Authority.

Exhibit 1S Notification to the Authority of completed Review / Update of Project Profile (as increased)

Note B: Upon receipt of the signed Supplemental Conditional Commitment Letter and the Authority's verification of Exhibit 1S, the Authority will forward to the Grantee the Amended and Restated Supplemental Grant Assistance Agreement. The Grantee should proceed to complete Exhibits 4S and 5S, scan and send each Exhibit to the Authority by email; and then the Authorized Official may sign the Assistance Agreement, either electronically or by scanning and send attached to email.

Exhibit 4S A) Grantee Supplemental Resolution (Accepting Increased Grant, Approving Agreement, Amending Budget, Designating an Authorized Official)
 B) Certificate of Recording Officer

Exhibit 5S Opinion of Legal Counsel Relating to the Grantee Supplemental Resolution



EXHIBIT E-7

NOTICE TO STATE LOCAL DEBT OFFICER



January 20, 2025

Mr. Dennis Keene
Commissioner and State Local Debt Officer
100 Airport Road, 3rd Floor
Frankfort, KY 40601

Re: Northern Kentucky Water District, PSC Case No. 2025-00007
Notice of Intent to Issue Securities

Dear Mr. Keene:

Pursuant to the regulations of the Kentucky Public Service Commission, specifically 807 KAR 5:001: Section 18(1)(g), please be advised that the Northern Kentucky Water District (the "District") hereby notifies the State Local Debt Officer that the District intends on issuing securities in the form of a bond anticipation note (a "BAN") for the purpose of funding several projects necessary for the District, including the Newport Water Main Replacement Project with a \$16,000,000 estimated total budget, \$5,055,741 of which would be issued as part of the BAN.

Moreover, the District also notifies the State Local Debt Officer that the District intends on issuing securities in the form of a state revolving loan from the Kentucky Infrastructure Authority ("KIA") for the same purpose in the amount of \$4,000,000 through KIA Drinking Water Revolving Loan F23-007S.

We will file the appropriate documents with your office in accordance with the requirements of KRS 65.117 once the securities are issued.

Very truly yours,

The Northern Kentucky Water District

A handwritten signature in black ink that reads "Stacey Kampsen". The signature is written in a cursive, flowing style.

By: Stacey Kampsen
Vice President of Finance & Support Services



EXHIBIT F

FINANCIAL STATEMENTS (Balance Sheet and Income Statement)

**NORTHERN KENTUCKY WATER DISTRICT
STATEMENT OF NET POSITION
PRELIMINARY UNAUDITED
DECEMBER 31, 2024**

ASSETS AND DEFERRED OUTFLOWS OF RESOURCES

Current Assets

Cash and Cash Equivalents	\$ 40,776,579
Investments	4,855,779
Accounts Receivable	
Customers, Net	8,515,518
Unbilled Customers	11,200,000
Others	1,659,998
Lease Receivable - Current	132,309
Inventory Supplies for New Installation and Maintenance, at Cost	2,828,190
Prepaid Items	1,556,691
Restricted Assets - Cash and Cash Equivalents	
Bond Proceeds Fund	22,525
Debt Service Account	1,944,477
Improvement, Repair & Replacement	<u>866,068</u>
Total Current Assets	<u>74,358,134</u>

Noncurrent Assets

Lease Receivable	4,819,201
Restricted Assets - Cash and Cash Equivalents	
Bond Proceeds Fund	2,032,312
Debt Service Account	19,779,441
Improvement, Repair and Replacement	10,546,789
Restricted Assets - Investments	
Debt Service Reserve Account	20,336,366
Net Other Postemployment Benefits Asset	623,600
Miscellaneous Deferred Charges	11,345,219
Subscription Assets, Net of Amortization	<u>1,918,799</u>
Capital Assets	
Land, System, Buildings and Equipment	569,485,528
Construction in Progress	<u>12,274,174</u>
Total Capital Assets	581,759,702
Less Accumulated Depreciation	<u>224,170,661</u>
Total Capital Assets, Net of Accumulated Depreciation	<u>357,589,041</u>
Total Noncurrent Assets	<u>428,990,768</u>
Total Assets	<u>503,348,902</u>

Deferred Outflows of Resources

Deferred Outflows Related to Pension	2,698,616
Deferred Outflows Related to OPEB	1,709,422
Deferred Loss on Refundings	<u>1,767,839</u>
Total Deferred Outflows of Resources	<u>6,175,877</u>
Total Assets and Deferred Outflows of Resources	\$ <u>509,524,779</u>

**NORTHERN KENTUCKY WATER DISTRICT
STATEMENT OF NET POSITION
PRELIMINARY UNAUDITED
DECEMBER 31, 2024**

LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET POSITION

Liabilities and Deferred Inflows of Resources

Current Liabilities

Bond Indebtedness	\$ 14,416,833
Notes Payable	2,187,884
Subscription Liability - Current	130,289
Accounts Payable	746,779
Accrued Payroll and Taxes	645,950
Accrued Subscription Interest	81,339
Compensated Absences	256,252
Arbitrage Liability	66,858
Other Accrued Liabilities	534,598
Liabilities Payable-Restricted Assets	
Accrued Interest Payable	1,944,477
Accounts Payable	888,593
	<hr/>
Total Current Liabilities	21,899,852

Long-Term Liabilities (Net of Current Portion)

Liabilities Payable-Restricted Assets	
Accounts Payable	375,620
Compensated Absences	1,806,259
Arbitrage Liability	804,416
Bond Indebtedness	110,189,252
Notes Payable	30,182,288
Subscription Liability - Noncurrent	1,872,657
Net Pension Liability	21,538,855
Net Unfunded OPEB Liability	-
	<hr/>
Total Long-Term Liabilities	166,769,347
	<hr/>
Total Liabilities	188,669,199

Deferred Inflows of Resources

Deferred Inflows Related to Pension	2,357,965
Deferred Inflows Related to OPEB	6,551,796
Deferred Inflows Related to Leases	4,587,131
Deferred Gain on Refundings	1,155,995
	<hr/>
Total Deferred Inflows of Resources	14,652,887
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Total Liabilities and Deferred Inflows of Resources	203,322,086

Net Position

Net Investment in Capital Assets	201,224,628
Restricted For	
Debt Service Funds	40,115,807
Capital Improvement Projects	12,203,481
Unrestricted	52,658,777
	<hr/>
Total Net Position	306,202,693

Total Liabilities, Deferred Inflows of Resources, and Net Position	\$ 509,524,779
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NORTHERN KENTUCKY WATER DISTRICT
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
PRELIMINARY UNAUDITED
YEAR ENDED DECEMBER 31, 2024

Operating Revenues

Water Sales	\$ 71,779,299
Forfeited Discounts	1,101,243
Rents From Property	339,753
Other Water Revenues	<u>284,366</u>

Total Operating Revenues	<u>73,504,661</u>
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Operating Expenses

Operating and Maintenance Expense	39,538,709
Depreciation Expense	<u>13,014,001</u>

Total Operating Expenses	<u>52,552,710</u>
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Net Operating Income	<u>20,951,951</u>
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Non-Operating Income (Expense)

Investment Income	4,529,359
Miscellaneous Non-Operating Income/(Expense)	2,048,381
Loss on Abandonment of Mains	(431,646)
Gain/(Loss) on Disposal of Fixed Assets	(185,420)
Interest on Long Term Debt	(4,653,502)
Pension Income/(Expense)	1,080,609
Other Post Employment Benefit Income/(Expense)	1,501,463
Arbitrage Expense	(338,179)
Amortization of Debt Premiums and Defeasance Costs	1,570,787
Bond Issuance Costs	<u>-</u>

Total Non-Operating Income (Expenses)	<u>5,121,852</u>
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Change in Net Position Before Capital Contributions	26,073,803
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Capital Contributions	<u>2,351,497</u>
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Change in Net Position	28,425,300
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Net Position - Beginning of Year	<u>277,777,393</u>
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Net Position - End of Year	<u><u>\$ 306,202,693</u></u>
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EXHIBIT G

SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

Case 2025-00066

Newport WMR Project Phase 3 & 4

In Public Service Commission Case No. 2025-0007 for approval of Phase 1 and 2 of the Newport Water Main Replacement Project, the Commission propounded several Request for Information. As such, for the convenience of the Commission, NKWD provides the following supplemental information.

State the approximate age of the existing water main, and its expected useful life.

The following mains would be replaced in Phase 3 and Phase 4 of this project respectively along with the corresponding age of each main:

Phase 3

- E. 3rd Street from Washington Avenue to Providence Way - approximately 125 years old
- E. 5th Street from Washington Avenue to Park Avenue - approximately 125 years old
- E. 7th Street from Monmouth Street to Washington Avenue - approximately 125 years old
- E. 7th Street from Linden Avenue to Oak Street - approximately 125 years old
- Roberts Street from E. 6th Street to 320' south of E. 8th Street - approximately 125 years old
- Linden Avenue from Nelson Place to E. 9th Street - approximately 125 years old
- Oak Street from E. 6th Street to E. 7th Street - approximately 125 years old

Phase 4

- Joyce Avenue from New Linden Road to Florence Circle - approximately 100 years old
- 21st Street from Kentucky Drive to the end of the street - approximately 100 years old
- Truesdale Road from Grandview Avenue to the end of the street - approximately 100 years old
- Amelia Street from Home Street to Widrig Street - approximately 100 years old
- Home Street from Amelia Street to 19th Street - approximately 100 years old
- Grandview Avenue from McHenry Street to Central Avenue - approximately 100 years old
- Clifton Avenue from McHenry Street to W. 13th Street - approximately 100 years old

The expected useful life of water mains varies based on many factors including but not limited to:

- material type;
- how the pipe was installed (bedding, backfill, depth);
- water pressure;
- fluctuation of pressure and temperature;
- environmental factors such as instability, ground movement, and traffic loading; and
- in the case of metallic pipes:
 - if exterior coatings or wraps were used;
 - if interior cement mortar linings were applied;
 - if the soil is corrosive; and
 - if there are nearby stray currents.

The NKWD has replaced 40-year-old water mains with high rates of failure due to severe corrosion while other mains over 100 years old continue to operate with little to no issue. Considering the water mains

within Phase 3 and Phase 4 of this project have experienced 67 failures since 2002 along with reduced flows and discolored water complaints due to internal pipe tuberculation, it is the NKWD's opinion that these mains have reached the end of their useful life.

For depreciation purposes, NKWD assigns a useful life of 62.5 years, which is the average life range for Transmission and Distribution Mains found appropriate with the NARUC Study, in accordance with authorization by the Commission in Case No. 2006-00398.

State what percentage of overall unaccounted for water loss the proposed projects are expected to improve as a result of Phase 3 and Phase 4.

NKWD repairs leaks and breaks on its mains as soon as practical once encountered. As such, there are no currently active leaks on these water mains known to NKWD presently. That said, NKWD has lost over 1,729,309 gallons of water due to leaks and breaks over the past ten years. This would equate to 0.012% of the overall unaccounted water loss during the same period of time.

State why the material and size of the pipe to be installed was selected, if any alternatives were considered, and why the alternatives were not selected.

NKWD states that it selected the material and size of the pipe based on NKWD's standards and hydraulic modeling.

NKWD considered alternatives such as structural lining for the existing mains. Structural lining is roughly the same cost as traditional open cut water main installation in developed areas. However, unlike water main replacement, structural lining does not address/replace service lines which in many cases are 100+ years old and at the end of their useful life. Additionally, while water main replacement allows for mains to be upsized, structural lining would leave approximately 1.16 miles of small diameter pipes which are below the current NKWD minimum design standards.

State the estimated useful life of the pipe selected to be installed.

NKWD states that based on studies by other agencies, properly designed and installed ductile iron and PVC water pipe have an expected life of 100+ years.

For depreciation purposes, NKWD assigns a useful life of 62.5 years, which is the average life range for Transmission and Distribution Mains found appropriate with the NARUC Study, in accordance with authorization by the Commission in Case No. 2006-00398.

State if the grant funding is conditioned upon replacing the lead service lines from the water main to a point within the building, 6" past the main valve, and state the amount of grant funding that would be lost, which would have gone to the water main replacement projects Phase 1 and Phase 2.

NKWD states on water main replacement projects that NKWD typically replaces the portion of the service line (regardless of material type) up to the meter pit as the utility owned portion of the service lines are usually in the same or similar condition as the water main being replaced.

NKWD further states that calculating the amount that would have gone towards other portions of the water main replacement project can be completed by subtracting the amount that could be used on lead service lines from the outside meter to a point within the building from the \$3,744,259 total dollars provided in KIA Grant 21CWW025, KIA Grant 22CWW223; and KIA Grant 22CWW223 Supplemental.

The table below outlines the maximum costs for the portion of lead service line replacement from the outside meter to a point within the building for each phase of the project.

Newport Water Main Replacement Project	Customer Owned Service Line Costs (Dollars)
Phase 1 (Maximum 37 LSL)	\$113,500.00
Phase 2 (Maximum 116 LSL)	\$174,000.00
Phase 3 (Maximum 225 LSL)	\$337,500.00
Phase 4 (Maximum 121 LSL)	\$181,500.00
TOTAL: 499	\$806,500.00

Accordingly, there is at least \$2,937,759 that would have gone towards other portions of the water main replacement project. As previously noted, it is likely that not every property that potentially has a lead service line will actually have a lead service line and, in some instances, the property owner will not consent to allow for the lead service line replacement. As such, the \$2,937,759 total could increase based on the conditions incurred during the project.

Explain the cause of the low flow rate in the existing cast iron water mains which are to be replaced.

NKWD states that the buildup of internal corrosion in the form of tuberculation over the course of decades has restricted water flow capacity within the respective pipes.

Explain the need for an increased flow rate in the areas in which the mains will be replaced.

NKWD states the increased flow rate that will be realized from this water main replacement project will continue to ensure a sufficient supply of water can be delivered quickly to meet the demands of multiple users simultaneously while ensuring NKWD's compliance with KRS 278.030 to "furnish adequate, efficient and reasonable service." The increased flows will prevent low pressure issues during peak usage periods and ensure adequate water pressure is maintained throughout the system and in compliance with 807 KAR 5:066 Section 5.

Furthermore, this project was developed in partnership with the City of Newport Fire Department in hopes of receiving grant funding. In addition to addressing mains with high rates of failure, the Fire Department desired to select undersized and/or tuberculated water mains with low flow rates to increase fire protection.



EXHIBIT H

AFFIDAVIT



AFFIDAVIT

Comes now the affiant, STACEY KAMPSEN, after first being duly sworn and cautioned, states as follows:

1. That she is the Vice President of Finance and Support Services;
2. That she is authorized to submit this Application on behalf of the Northern Kentucky Water District;
3. That the information contained in the Application and its Exhibits are true and correct to the best of her knowledge and belief except as to those matters that are based on information provided to her and as to those she believes to be true and correct.

Further Affiant sayeth naught.

March 21, 2025

Date

Stacey Kampsen

Name: Stacey Kampsen

COMMONWEALTH OF KENTUCKY :

: SS

COUNTY OF KENTON :

The foregoing instrument was subscribed and sworn before me by Stacey Kampsen this 21st day of March 2025.

C Zoda

Notary Public, Kentucky at Large

Notary ID Number: KYNP57619

My Commission Expires: 08/22/2026