

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

**ELECTRONIC APPLICATION OF)
BARKLEY LAKE WATER DISTRICT)
FOR APPROVAL TO ISSUE) CASE NO. 2024-00052
EVIDENCE OF INDEBTEDNESS AND)
A CERTIFICATE OF PUBLIC)
CONVENIENCE AND NECESSITY)**

VERIFIED APPLICATION

Pursuant to KRS 278.020(1), KRS 278.300, and 807 KAR 5:001, Barkley Lake Water District (“Barkley Lake” or “the District”) applies to the Public Service Commission (“Commission”) for an Order by **October 25, 2024**, authorizing Barkley Lake to execute an Assistance Agreement with the Kentucky Infrastructure Authority (“KIA”) to borrow an amount not to exceed \$3,678,453 and granting a certificate of public convenience and necessity (“CPCN”) to replace approximately 98,865 linear feet of three (3), four (4), and six (6) inch Asbestos Cement (“AC”) water line with polyvinylchloride (“PVC”) pipe (“Lakeside Waterline Replacement Project” or “the Project”). Because the bids to complete the Project will expire on October 30, 2024, the District respectfully requests that the Commission issue a decision in this matter by October 25, 2024. In support of its Application,¹ Barkley Lake provides the following:

¹ To facilitate the Commission’s initial review of this Application, Barkley Lake has attached to this Application **Exhibit 1**, a “Filings Requirements List” that consists of four pages, lists each statutory and regulatory requirement

A. General Information

1. The full name and post office address of Barkley Lake is Barkley Lake Water District, P.O. Box 308, Cadiz, Kentucky 42211. Its physical address is 1420 Canton Road, Cadiz, Kentucky 42211, and its e-mail address is office@blwdky.com

2. Copies of all orders, pleadings and other communications related to this proceeding² should be directed to:

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Chairman
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office@blwdky.com

Damon R. Talley
Stoll Keenon Ogden PLLC
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Hodgenville, Kentucky 42748
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for an application for a certificate of public convenience and necessity and authorization to issue evidence of indebtedness, and identifies the exhibit or paragraph that satisfies the requirement.

² On March 1, 2024 pursuant to 807 KAR 5:001, Section 8, Barkley Lake notified the Commission of its election of the use of electronic filing procedures for this proceeding.

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3. Barkley Lake is not a corporation, limited liability company or limited partnership. It has no articles of incorporation or partnership agreements.

4. Barkley Lake is a water district created under the provisions of KRS Chapter 74 on July 21, 1965, by the Trigg County Fiscal Court.

5. As of December 31, 2023, Barkley Lake provided retail water service to approximately 6,405 customers in Trigg, Caldwell, and Christian counties, Kentucky as well as providing water for resale to Christian County Water District, Lyon County Water District, Stewart County (Tennessee) Water District, and the City of Cadiz, Kentucky.³

6. Barkley Lake is engaged in the production, distribution and sale of water. The District owns and operates a water treatment plant, five pumping stations, nine water storage tanks, and 2,621,902 feet of distribution lines across six pressure zones.

³ *Annual Report of Barkley Lake Water District to the Kentucky Public Service Commission for the Calendar Year Ended December 31, 2023* (“2023 Annual Report”) at 12 and 49.

7. A copy of the resolution of Barkley Lake's Board of Commissioners authorizing the filing of this application is attached as **Exhibit 2** of this Application.

B. The Lakeside Waterline Replacement Project

8. **Overview of the Project.** Barkley Lake proposes to replace approximately 98,865 linear feet of AC waterline with PVC piping. The AC lines to be replaced by the proposed Project are 3-inch, 4-inch, and 6-inch diameter distribution lines and were installed when the District was created in 1965. Specifically, 1,410 linear feet of 3-inch, 85,311 linear feet of 4-inch, and 12,144 linear feet of 6-inch PVC waterline will be installed to replace leaking AC lines of the same diameter, which will then be abandoned in place. All construction will take place in areas where Barkley Lake already has easements; no new easements will be required.

9. **Location of the Project and Need for Replacement.** The 1960's era AC lines to be replaced are located in eight residential subdivisions in Trigg County along the east side of Lake Barkley, which is on the west side of Barkley Lake's service area. Barkley Lake divided the Project into eight (8) divisions, and designated them as Division A through Division H. Currently funds exist to complete Divisions A-E, and it is expected that grant funds to complete Division F may become available during the pendency of this proceeding. The area in which the AC lines are located contains variation in elevation. Some of the lowest-lying

areas of Barkley Lake's system are in the Lakeside area close to the lakeshore. The elevation increases farther from the lakeshore. This variation in elevation means some areas of the system have high pressure. High pressure within the old AC line makes the line more vulnerable to breakage and leaks. A map showing the general areas where AC lines will be replaced and a listing of the 58 roads along which these lines lie is included as **Exhibit 3** to this application. Maps of the individual Divisions A through H, along with the plans and drawings for the Project have been filed separately as **Exhibits 8 and 8A through 8H**. Over time, the lines have deteriorated and resulted in leaks needing repair. Barkley Lake's records indicate that 31 of the 207 line breaks that occurred from January 2021 through May 2024 were in the Lakeside area. Work orders for the 31 line breaks in the Lakeside area are included as **Exhibit 4**. Although the AC pipe in this area represents roughly 3 percent of the pipe in Barkley Lake's system, these pipes are responsible for 15 percent of the line breaks. Replacing the AC lines will improve the reliability of Barkley Lake's water service by eliminating one source of line breaks and leaks and reducing the likelihood of customer outages. As stated above, Barkley Lake has secured funding to complete replacement of the AC lines in Division A through Division E. Barkley Lake anticipates additional grant funds may become available during the pendency of this proceeding to complete the replacement of the AC lines in Division F as well.

10. **Additional Benefits of Project.** The Project will also eliminate hazards associated with asbestos in future repairs that would likely occur if the AC lines were to remain in service. Maintenance and repair of AC pipe is more labor intensive and dangerous to Barkley Lake's personnel than maintaining PVC pipe. This is because AC pipe weighs much more than PVC pipe and exposing the AC lines and repairing them can disturb the asbestos material from which the lines are constructed. Dry cutting AC line can result in asbestos, a recognized carcinogen, being released into the atmosphere. Therefore, a wet saw must be used when cutting into an AC line to repair it. Replacing the AC lines with PVC pipe will make future maintenance of the water lines in the Lakeside area much less labor intensive for Barkley Lake personnel. The AC lines will be replaced with PVC lines of the same diameter following which the AC lines will be taken out of service and abandoned in place. The new lines will be laid adjacent to the existing lines. Construction will take place on property on which Barkley Lake already holds easements. Barkley Lake will not need to obtain any new easements to complete the Lakeside Waterline Replacement Project.

11. **Alternatives Considered.** Barkley Lake considered two alternatives to replacing the AC lines in this area with PCV pipe. Barkley Lake evaluated the alternative of maintaining the status quo and repairing the lines as breaks occur, but

not engaging in a total replacement of the AC lines in the Lakeside area. Barkley Lake also considered replacing the AC lines with ductile iron pipe.

A. *Alternative 1: Repair as Needed, No Replacement*

Barkley Lake considered simply maintaining the status quo and not pursuing a complete replacement of the waterlines in the Lakeside area. If Barkley Lake had chosen this alternative, it would have repaired or replaced the AC lines as the lines broke, but not attempted any proactive replacement. However, given the increasing time and money spent repairing leaks and maintaining the AC waterlines in the area, Barkley Lake decided that the better decision would be to pursue an orderly and systematic replacement of the AC lines, rather than repair and replace them in piecemeal fashion as they break. Although the pipe in this area represents only 3 percent of the pipe in Barkley Lake's system, this pipe accounted for 15 percent of the line breaks in the last three years. As the pipe continues to age, the frequency of line breaks is expected to increase. Planned replacement permits Barkley Lake to communicate with its customers concerning when construction will occur and what, if any, inconveniences they might expect. When a line breaks, there is no opportunity to prepare customers in this way, and no opportunity for the customer to prepare for any inconvenience. Similarly, if Barkley Lake waits for an old AC line to break before replacing it, Barkley Lake cannot prepare ahead of time by obtaining the appropriate pipe and any needed appurtenances to make the repair or replacement.

Engaging in a planned and orderly replacement is a better use of Barkley Lake's resources and will result in a stronger more reliable water distribution system than a piecemeal approach to replacement.

B. *Alternative 2: Replace Using Ductile Iron*

Barkley Lake considered replacing the AC lines with ductile iron pipe. Ductile iron pipe is stronger than AC pipe or PVC pipe. It tends to have a longer useful life than PVC pipe and for this reason Barkley Lake considered replacing the AC lines with ductile iron. The cost of small-diameter ductile iron pipe is higher than PVC pipe of the same diameter. The cost difference between PVC pipe and ductile iron pipe for larger diameter pipe is not as great. Given that this project involves replacing pipe of 3-inch, 4-inch, and 6-inch diameter with same size pipe, the cost difference for using ductile iron pipe is significant, as these are small diameter lines. It would cost Barkley Lake **\$3,495,530 more** in material costs to construct the Project with ductile iron pipe rather than PVC pipe. In addition, the installation cost of ductile iron pipe is considerably more than installing PVC pipe of the same diameter.

12. **Engineering Report.** The Preliminary Engineering Report for the proposed Lakeside Waterline Replacement Project was developed by Bell Engineering and is attached to this Application as **Exhibit 5**. The Final Engineering Report is attached to the Application as **Exhibit 6**.

13. **Plans and Specifications.** The contract specifications are attached to this Application as **Exhibit 7**. A copy of the plans, specifications and drawings for the proposed Project signed, sealed and dated by an engineer registered in Kentucky was filed separately as **Exhibits 8A-8H**.

14. **Proposed Financing for Proposed Construction.** Barkley Lake proposes to finance the Lakeside Waterline Replacement Project with Cleaner Water Program (“CWP”) grant funds from two grants and a KIA loan. Barkley Lake has secured **\$376,651** from CWP Grant 21CWW205, and **\$1,113,760** from CWP Grant 22CWW357. Originally, Barkley Lake was awarded \$427,065 in CWP grant funds for Grant 22CWW357. However, when the bids to complete the Project were higher than expected, KIA increased the grant award by \$686,695, for a total grant amount of \$1,113,760 for Grant 22CWW357. Additionally, Barkley Lake seeks the Commission’s approval to execute an Assistance Agreement with KIA for a **\$3,678,453 KIA loan** having a 20-year term, principal forgiveness of 27 percent of the assistance amount, and 2.25% interest rate (“KIA Loan F23-002”)

15. **Division of Water.** The Kentucky Division of Water (“KDOW”) has reviewed the plans for the proposed Lakeside Waterline Replacement Project and has approved them with respect to sanitary features of design. A copy of the letter in which KDOW stated its approval is attached to this Application as **Exhibit 9**.

16. **Kentucky Department of Highways.** Barkley Lake will not need to obtain an Encroachment Permit from the Kentucky Department of Highways, as no construction will take place within state road rights-of-way.

17. **County Permit.** Included as **Exhibit 10** is a copy of the Permanent Easement granted by the Fiscal Court of Trigg County to Barkley Lake for the purpose of constructing and maintaining water lines along and across county roads. All roadways along which Barkley Lake proposes to replace AC lines are Trigg County roadways.

18. **Advertisement for Bids.** In accordance with KRS 424.260, Barkley Lake caused the publication of an advertisement for bids for construction of the Lakeside Waterline Replacement Project in the June 13, 2024, editions of the *Kentucky New Era* and the *Cadiz Record*. Proof of publication of these advertisements is attached to this Application as **Exhibit 11**.

19. **Bids Received.** The District received three (3) bids to complete the Lakeside Waterline Replacement Project. All of the bids received exceeded the funds available for the Project. As had been announced prior to bid opening because all bids exceeded the funds available, the amounts for each division were removed in reverse alphabetical order and the bids retabulated until the low bidder came within the funds available. Additionally, math errors were found in the bids of two of the bidding companies. After error correction and the removal of Divisions F-H,

the \$5,089,181 bid of Youngblood Excavating and Contracting, LLC, (“Youngblood”) of Mayfield, Kentucky was selected as the lowest bid. A copy of the Project Engineer’s Recommendation of Award Letter is attached as **Exhibit 12**.

20. **Board Resolution.** On July 30, 2024, Barkley Lake’s Board of Commissioners adopted a resolution awarding a contract to construct Divisions A-E of the Lakeside Waterline Replacement Project to Youngblood contingent upon the Commission authorizing the District to execute an Assistance Agreement with KIA for KIA Loan F23-002 to borrow \$3,678,453 and issuing a CPCN for the Project. Additionally, Barkley Lake resolved to award the completion of Division F to Youngblood if funds become available and the Commission awards a CPCN for Division F. A copy of the Resolution is attached as **Exhibit 13**.

21. **Estimated Cost to Construct.** The estimated cost to construct Divisions A through E of the Project is **\$5,484,642** including administrative costs and contingencies. **Exhibit 6 at page 12, and Exhibit 14** contain a breakdown of the estimated costs to construct Divisions A through E. The estimated cost to construct Division F is \$847,125 as set forth in the certified bid tabulation on page 36 of Exhibit 6.

22. **Estimated Annual Cost to Operate.** Barkley Lake anticipates that the Project will not result in an increase in the cost to operate Barkley Lake’s system because the Project is merely a replacement of distribution lines already in existence

with distribution lines of the same diameter. No additional pumping stations are proposed and the replacement of the lines with lines of the same diameter will not result in additional pumping costs, nor will the Project result in 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.

23. **Competition with Other Public Utilities.** The proposed Lakeside Waterline Replacement Project will not compete with the facilities of another public utility. Its construction will not result in wasteful duplication of utility facilities or inefficient investment.

C. Authorization to Execute Assistance Agreement

24. To finance the proposed Lakeside Waterline Replacement Project, Barkley Lake proposes to enter into an Assistance Agreement with KIA for KIA Loan F23-002 to borrow an amount not to exceed \$3,678,453 from the Drinking Water State Revolving Fund (“Fund F”). The proposed loan will bear interest at a rate of 2.25 percent per annum and must be repaid over a period not to exceed 20 years from the date of the last draw of funds. The proposed loan is subject to principal forgiveness of 27 percent of the assistance amount, not to exceed \$1,001,207. Thus, the net loan amount to be repaid will be \$2,677,246. Interest

on the proposed loan will accrue from the time Barkley Lake begins drawing funds from KIA. The proposed loan will be secured by a pledge of Barkley Lake's revenues. A loan servicing fee of 0.25 percent of the outstanding loan balance will also be assessed semi-annually. An amortization schedule for the proposed loan is attached to this Application as **Exhibit 15**. Payments on the proposed loan will begin six months after funds are first drawn.

25. A copy of the KIA Conditional Commitment Letter issued October 5, 2023 is attached as **Exhibit 16**. The terms of the Conditional Commitment Letter require Barkley Lake to execute the Assistance Agreement on or before October 5, 2024. Since Barkley Lake cannot execute the KIA assistance Agreement until after the Commission has granted its approval in this proceeding, Barkley Lake has requested an extension of time in which to execute the Assistance Agreement. As provided in the KIA Conditional Commitment Letter (**Exhibit 16**), KIA's Executive Director may grant a utility a one-time extension up to six (6) months. Historically, KIA's Executive Director has routinely granted these extensions. Barkley Lake will provide the Commission with a copy of the extension as soon as it has been received. Minutes from the July 6, 2023 KIA Board of Directors meeting in which the loan was approved are attached as **Exhibit 17**. The request for an extension of time to execute the Assistance Agreement is attached as **Exhibit 18**.

26. Barkley Lake also plans to finance a portion of the proposed Project using \$376,651 of CWP grant funds from Grant 21CWW205, and \$1,113,760 of CWP grant funds from Grant 22CWW357. Originally, Barkley Lake was awarded \$427,065 in CWP grant funds for Grant 22CWW357. However, when the bids to complete the Project were higher than expected, KIA increased the grant award by \$686,695, for a total grant amount of \$1,113,760 for Grant 22CWW357. Copies of the Grant Assistance Agreements for 21CWW205 and 22CWW357, as well as a copy of the Notice of Increased Award for 22CWW357 are attached to this Application as **Exhibit 19**

27. The proposed loan will **not** require Barkley Lake to seek an immediate rate adjustment.

28. Barkley Lake does not propose to issue any stock or bonds.

29. No proceeds from the proposed Assistance Agreement will be used to refund any outstanding obligation.

30. In the immediate past calendar year (the 12-month period ending December 31, 2023), Barkley Lake had less than \$5,000,000 in gross annual revenues.

31. Pursuant to 807 KAR 5:001, Section 12(1)(b), and Section 18, Barkley Lake includes with this Application **Exhibit 20**, a copy of Barkley Lake's most recent annual report on file with the Commission, the 2023 Annual Report.

32. **Exhibit 20**, the 2023 Annual Report, contains a detailed income statement and balance sheet for the 12-month period ending December 31, 2023 as required by 807 KAR 5:001, Section 12(2)(i), and the Bond information required by 807 KAR 5:001, Section 12(2)(e).

33. No material changes in Barkley Lake’s operations have occurred since December 31, 2023.

34. Since the amendment of 807 KAR 5:001, Section 12 in 2014,⁴ the Commission has consistently accepted the use of a utility’s most recently filed annual report as a financial exhibit provided that the utility had less than \$5,000,000 in gross annual revenue in the immediate past calendar year and the application contains a statement that no material changes have occurred since the end of that 12-month period.⁵

⁴ 40 Ky. Admin. Reg. 686, 690 (Sept. 2013) (creating an exception to financial exhibit requirements for utilities with gross annual revenues of less than \$5,000,000); 40 Ky. Admin Reg 1109, 113 (final version of amended regulation)

⁵ See, e.g., *Electronic Application of Knox County Utility Commission for Authorization to Execute An Assistance Agreement with the Kentucky Infrastructure Authority and for A Certificate of Public Convenience and Necessity to Construct the Barbourville Connection-KY 225 Project*, Case No. 2023-00003 (Ky. PSC filed Jan. 30, 2023); *Electronic Application of McCreary County Water District for Authorization to Execute A Supplemental Assistance Agreement with the Kentucky Infrastructure Authority to Increase the Amount Borrowed Under An Existing Assistance Agreement and for Approval of Changes To A Plan of Construction*, Case No. 2022-00247 (Ky. PSC filed Aug. 18, 2022); *Electronic Application of Morgan County Water District for the Issuance of A Certificate of Public Convenience and Necessity to Construct A Water System Improvements Project and An Order Authorizing the Issuance of Securities Pursuant to the Provisions of KRS 278.020, KRS 278.300, and 807 KAR 5:001*, Case No. 202200245 (Ky. PSC filed Aug. 9, 2022); *Electronic Application of the Adair County Water District for the Issuance of A Certificate of Public Convenience and Necessity to Construct A Water System Improvements Project and An Order Authorizing the Issuance of Securities Pursuant to the Provisions of KRS 278.020, KRS 278.300 and 807 KAR 5:001*, Case No. 2021-00176 (Ky. PSC Apr. 27, 2021); *Electronic Application of the Adair County Water District for the Issuance of A Certificate of Public Convenience and Necessity to Construct Sewer System Improvements Project and An Order Authorizing the Issuance of Securities Pursuant to the Provisions of KRS 278.020, KRS 278.300 and 807 KAR 5:001*, Case No. 2021-00156 (Ky. PSC Apr. 14, 2021).

35. Barkley Lake has no outstanding mortgages.
36. Barkley Lake has no outstanding notes.
37. Barkley Lake has no authorized, issued, or outstanding stock.
38. Barkley Lake has paid no dividends in the five previous fiscal years.
39. A copy of Barkley Lake's written notification to the State Local Debt

Officer is included as **Exhibit 21**.

40. Detailed maps and plans of the proposed construction are found in **Exhibits 8A through 8H**, which have been filed separately.

41. A detailed estimate of the acquired property, arranged according to the Uniform System of Accounts for Class A and B Water Districts and Associations is attached to this Application as **Exhibit 22**.

42. The execution of an Assistance Agreement with KIA to borrow \$3,678,453 is for a lawful objective within Barkley Lake's corporate purposes, is necessary, appropriate for and consistent with Barkley Lake's proper performance of its service to the public and will not impair Barkley Lake's ability to perform that service and is reasonably necessary and appropriate for such purpose.

43. The bids to complete the Project expire on October 30, 2024.

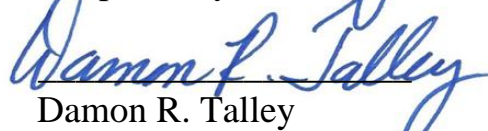
Therefore, Barkley Lake respectfully requests a decision by **Friday, October 25, 2024**, to permit it time to prepare the Notice of Award and for the Bidder to obtain its Payment and Performance Bonds.

Wherefore, Barkley Lake Water District requests that the Commission:

1. Place this Application at the head of the Commission's docket, pursuant to KRS 278.300(2), and issue a decision in this matter by **October 25, 2024**.
2. Grant Barkley Lake a CPCN to construct the Lakeside Waterline Replacement Project.
3. Authorize Barkley Lake to enter into and execute an Assistance Agreement with KIA to borrow a sum no greater than \$3,678,453.
4. Grant any and all such other relief to which Barkley Lake may be entitled.

Dated: August 23, 2024

Respectfully submitted,



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Counsel for Barkley Lake Water District

CERTIFICATE OF SERVICE

In accordance with the Commission's Order of July 22, 2021 in Case No. 2020-00085 (Electronic Emergency Docket Related to the Novel Coronavirus COVID-19), this is to certify that the electronic filing has been transmitted to the Commission on August 23, 2024; and that there are currently no parties in this proceeding that the Commission has excused from participation by electronic means.


Damon R. Talley

TABLE OF EXHIBITS

Exhibit No.	Description
1	Filings Requirement Checklist
2	Board Resolution Authorizing Application
3	Vicinity Map and Road List
4	Work Orders
5	Preliminary Engineering Report
6	Final Engineering Report
7	Contract Specifications
8A-8H	Plans, Specifications, and Drawings
9	Division of Water Approval
10	Order of Trigg County Fiscal Court Granting Permanent Easement
11	Proof of Publication of Advertisement for Bids
12	Project Engineer's Recommendation of Award Letter
13	Resolution Awarding Contract
14	Summary of Costs
15	Amortization Schedule for KIA Loan F23-002
16	KIA Conditional Commitment Letter
17	July 6, 2023, KIA Board of Directors Meeting Minutes

Exhibit No.	Description
18	Request for KIA of Extension of Time
19	Grant Assistance Agreements, CWP 21CWW205 and 22CWW357
20	2023 Annual Report
21	Notification to the State Local Debt Officer
22	Detailed Estimate of Acquired Property by Account

Filing Requirements

FILING REQUIREMENTS

FILING REQUIREMENTS FOR AN APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

Barkley Lake Waterline Replacement Project

Source Authority	Requirement	Location
807 KAR 5:001, § 14(1)	Applicant's name, mailing address and e-mail address	Page 2, Para 1
807 KAR 5:001, § 14(1)	Statutory Reference – KRS 278.020	Page 1
807 KAR 5:001, § 4(3)	Signature of Applicant's Attorney	Page 17
807 KAR 5:001, § 4(3)	Name, Address, Telephone Number, Fax Number, and e-mail address of Applicant's Attorney	Page 2-3, Para 2
807 KAR 5:001, § 14(2)	If Applicant is corporation: State and date of incorporation, attestation of good standing in state of incorporation, statement regarding authorization to transact business in Kentucky	Page 3, Para 3 Not Applicable
807 KAR 5:001, § 14(3)	If Applicant is a limited liability company: State and date of organization, attestation of good standing in state of incorporation, statement regarding authorization to transact business in Kentucky	Page 3, Para 3 Not Applicable
807 KAR 5:001, § 14(4)	If the Applicant is a limited partnership: a certified copy of limited partnership agreement and all amendments or statement identifying prior Commission proceedings in which limited partnership agreement and all amendments filed	Page 3, Para 3 Not Applicable
807 KAR 5:001, § 15(2)(a)	The facts relied upon to show that the public convenience and necessity requires the proposed construction	Pages 4-8, Paras 8-11 Exhibits 4, 9, 10 & 11
807 KAR 5:001, § 15(2)(b)	Copies of franchises or permits for the proposed construction or extension	Pages 9-10, Paras 15-17 Exhibits 9&10
807 KAR 5:001, § 15(2)(c)	A full description of the proposed location, route, or routes of the proposed construction or extension, including a description of the manner in which same will be constructed, and the names of all public utilities, corporations, or persons with whom the proposed construction or extension is likely to compete	Pages 4-8, Paras 8-11 Page 12, Para 23 Exhibits 8A-H

Source Authority	Requirement	Location
807 KAR 5:001, § 15(2)(d)(1)	Maps to suitable scale showing the location or route of the proposed construction or extension, as well as the location to scale of like facilities owned by others located anywhere within the map area with adequate identification as to the ownership of the other facilities (Only one copy submitted pursuant to Commission order of July 28, 2017)	Page 9, Para13 Exhibits 8A-8H
807 KAR 5:001, § 15(2)(d)(2)	Plans and specifications and drawings of the proposed plant, equipment, and facilities	Page 9 Para 13 Exhibits 8A-8H
807 KAR 5:001, § 15(2)(e)	The manner in detail in which the Applicant proposes to finance the proposed construction or extension.	Page 9, Para 14 Exhibits 16 & 19
807 KAR 5:001, § 15(2)(f)	An estimated annual cost of operation after the proposed facilities are placed into service	Page 11, Para 22 Exhibit 30
KRS 322.340	Engineering plans, specifications, drawings, plats and reports for the proposed construction or extension prepared by a registered engineer, must be signed, sealed, and dated by an engineer registered in Kentucky	Page 9, Para 13 Exhibits 8A-8H

FILING REQUIREMENTS

FILING REQUIREMENTS FOR AN APPLICATION FOR A AUTHORITY TO ISSUE EVIDENCE OF INDEBTEDNESS

BARKLEY LAKE DISTRICT – KIA LOAN F23-002

Source Authority	Requirement	Location
807 KAR 5:001, § 14(1)	Applicant’s name, mailing address and e-mail address	Page 2, Para 1
807 KAR 5:001, § 14(1)	Statutory Reference – KRS 278.300	Page 1
807 KAR 5:001, § 4(3)	Signature of Applicant’s Attorney	Page 17
807 KAR 5:001, § 4(3)	Name, Address, Telephone Number, Fax Number, and e-mail address of Applicant’s Attorney	Page 2-3, Para 2
807 KAR 5:001, § 14(2)	If Applicant is corporation: State and date of incorporation, attestation of good standing in state of incorporation, statement regarding authorization to transact business in Kentucky	Page 3, Para 3 Not Applicable
807 KAR 5:001, § 14(3)	If Applicant is a limited liability company: State and date of organization, attestation of good standing in state of incorporation, statement regarding authorization to transact business in Kentucky	Page 3, Para 3 Not Applicable
807 KAR 5:001, § 14(4)	If the Applicant is a limited partnership: a certified copy of limited partnership agreement and all amendments or statement identifying prior Commission proceedings in which limited partnership agreement and all amendments filed	Page 3, Para 3 Not Applicable
KRS 278.300(2)	Application is made under oath and signed on utility’s behalf by its president, or by a vice president, auditor, comptroller or other executive officer having knowledge of the matters set forth and duly designated by the utility	Page S-1
807 KAR 5:001, § 18(1)(a)	Information required by 807 KAR 5:001, § 14	See Above
807 KAR 5:001, § 18(1)(b)	Description of Applicant’s property and the field of its operation	Page 3, Paras 5&6 Exhibit 6, Pages 3-6; Exhibit 20
807 KAR 5:001, § 18(1)(c)	Description of amount and kinds of stock to be issued	Page 14, Para 28 Not Applicable
807 KAR 5:001, § 18(1)(c)	Description of amount, terms and interest rate of bond or note	Page 12-13, Paras 24-25
807 KAR 5:001, § 18(1)(c)	Description of how bond or note will be secured	Page 12, Para 24
807 KAR 5:001, § 18(1)(d)	Statement of how proceeds are to be used	Page 4-5, Paras 8 & 9 Page 9, Para 14

Source Authority	Requirement	Location
807 KAR 5:001, § 18(1)(e)	If proceeds will be used to acquire, construct, improve, or extend property: a detailed description of property and all contracts	Page 4, Para 8; Page 10, Para 19 Exhibit 6
807 KAR 5:001, § 18(1)(f)	Requirements if proceeds are to refund outstanding obligations	Page 14, Para 29 Not Applicable
807 KAR 5:001, § 18(1)(g)	Applicant's written notification to state local debt officer regarding proposed issuance	Page 15, Para 39 Exhibit 21
807 KAR 5:001, § 18(2)(a) 807 KAR 5:001, § 12(1)(b)	Financial Exhibit	Page 14, Paras 30-34 Exhibit 20
807 KAR 5:001, § 18(2)(b)	Copies of trust deeds or mortgages	Page 15, Paras 35 & 36
807 KAR 5:001, § 12(2)(c)	If property acquired: maps and plans of property	Page 5, Para 9 Page 8, Para 13 Exhibits 8A-8H
807 KAR 5:001, § 12(2)(c)	If property acquired: detailed estimates by USOA account number	Page 16, Para 41 Exhibit 22

Exhibit 2
Board Resolution

RESOLUTION NO. 2024-07-01**RESOLUTION OF BARKLEY LAKE WATER DISTRICT
AUTHORIZING DISTRICT CHAIRMAN TO APPLY TO
THE KENTUCKY PUBLIC SERVICE COMMISSION FOR
A CERTIFICATE OF PUBLIC CONVENIENCE AND
NECESSITY TO CONSTRUCT A WATER LINE
REPLACEMENT PROJECT AND AUTHORIZATION TO
ISSUE AN EVIDENCE OF INDEBTEDNESS**

WHEREAS, Barkley Lake Water District (“the District”) is a water district organized pursuant to the provisions of KRS Chapter 74;

WHEREAS, KRS 278.015 provides that a water district is a utility and is subject to the jurisdiction of the Kentucky Public Service Commission (the “Commission”) in the same manner and to the same extent as any other utility;

WHEREAS, KRS 278.020(1) prohibits any utility from commencing the construction of any plant or facility or installing any equipment to provide utility service, except for that in the ordinary course of business, until that utility has obtained a certificate of public convenience and necessity (the “CPCN”) from the Commission;

WHEREAS, the District proposes to replace approximately 98,865 linear feet of asbestos cement water line with polyvinylchloride pipe (“the Lakeside Waterline Replacement Project” or the “Project”);

WHEREAS, the District proposes to partially finance the Project with the proceeds of a \$3,678,453 loan from the Drinking Water State Revolving Fund (“KIA Loan F23-002”) from the Kentucky Infrastructure Authority (“KIA”);

WHEREAS, the District must execute an Assistance Agreement with KIA to obtain KIA Loan F23-002;

WHEREAS, KRS 278.300(1) requires a utility to obtain authorization from the Commission prior to issuing any evidence of indebtedness, including executing an Assistance Agreement with KIA;

WHEREAS, the District has engaged the services of Bell Engineering (“Bell”) to serve as consulting engineers for the Project. Bell has designed the Project and will perform the usual and customary duties of consulting engineers, including Construction Administration and Inspection Services; and

WHEREAS, the District has, or soon will have, obtained all the necessary approvals to construct the Project, except for a CPCN and approval to execute the Assistance Agreement with KIA.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COMMISSIONERS OF BARKLEY LAKE WATER DISTRICT AS FOLLOWS:

Section 1. The facts, recitals, and statements contained in the foregoing preamble of this Resolution are true and correct and are hereby affirmed and incorporated as a part of this Resolution.

Section 2. The Chairman is authorized and directed to take any and all actions reasonably necessary to prepare, execute, and submit an application to the Commission for a CPCN to construct the Project and approval to execute the Assistance Agreement with KIA.


Section 3. This Resolution shall take effect upon its adoption

Adopted by the Board of Commissioners of Barkley Lake Water District at a meeting held on July 8, 2024, signed by the Chairman and attested by the Secretary.

BARKLEY LAKE WATER DISTRICT

By: 
Scott Bridges, Chairman

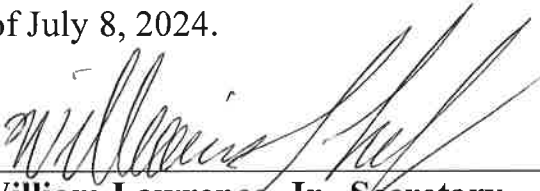
ATTEST:


William Lawrence, Jr., Secretary

CERTIFICATION

The undersigned Secretary of Barkley Lake Water District (the “District”) does hereby certify that the foregoing is a true copy of a Resolution duly adopted by the District’s Board of Commissioners at a meeting properly held on July 8, 2024, signed by the Chairman of the Board of Commissioners, attested by the Secretary of the Board of Commissioners, and now in full force and effect.

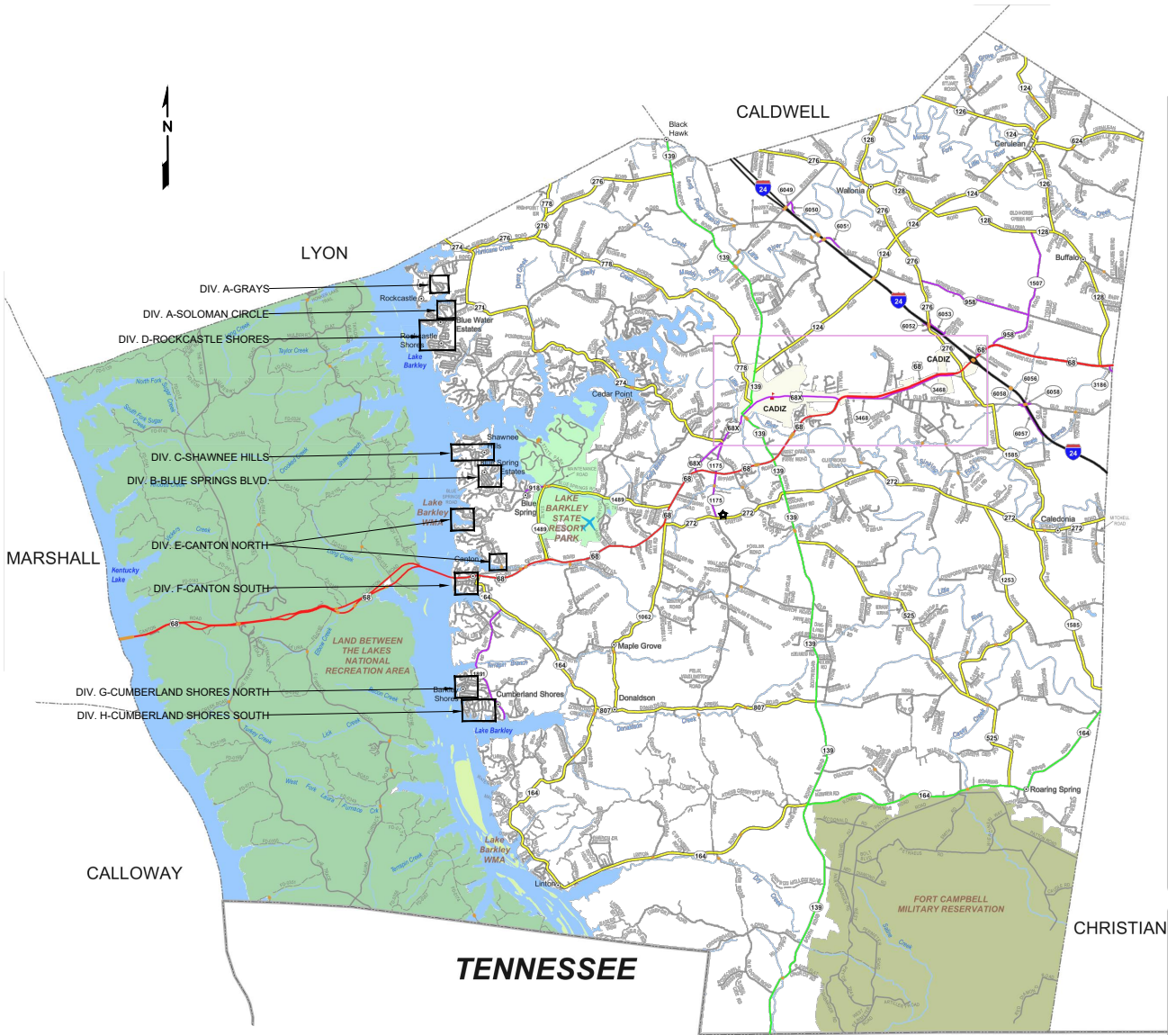
WITNESS my hand this the day of July 8, 2024.



William Lawrence, Jr., Secretary

Exhibit 3
Vicinity Map
and
Road List

LAKESIDE AREA WATER LINE REPLACEMENT



TRIGG COUNTY
VICINITY MAP
NOT TO SCALE

ROAD LIST

DIVISION A

SOLOMAN DRIVE
GOOSE HOLLOW ROAD
GRAYS HILLVIEW DRIVE
GRAYS HILLTOP DRIVE
HILLSIDE CIRCLE

DIVISION B

BLUESPRINGS BOULEVARD
VALLEY DRIVE
SUNRISE DRIVE
SHADY LANE
EAST SHADY LANE
SUNRISE DRIVE
WEST PARK PLACE
EAST PARK PLACE

DIVISION C

SHAWNEE TRAIL
CHEROKEE DRIVE
SEMINOLE DRIVE
BAYSHORE DRIVE
DAFFODIL DRIVE
HILL STREET

DIVISION D

CAROL DRIVE
NANCY AVENUE
ZALETEL COURT
GOLDENROD DRIVE
OAK COURT
FERRELL CIRCLE
CAPPER LANE
KENTUCKY DRIVE
HAYDEN DRIVE
BLUE RIVER ROAD
SOUTHVIEW DRIVE

DIVISION E

HOLIDAY WAY
CARDINAL CIRCLE
HERON POINT
CANTON-LAKESHORE DRIVE
CENTERVIEW DRIVE
CROSS STREET

DIVISION F

TERRACE LANE
ARROWHEAD TRAIL
FRONTIER AVENUE
BARKLEY TRAIL
PINE LANE
OAK LANE
CEDAR LANE
MAPLE LANE
LITTLEJOHN ROAD

DIVISION G

RIDGE DRIVE
CUMBERLAND DRIVE
CHARLOTTE COVE

DIVISION H

SCENIC DRIVE
HORSESHOE DRIVE
HICKORY DRIVE
BEECHWOOD DRIVE
BLUEBIRD DRIVE
REDBIRD DRIVE
BEAR RUN ROAD
NORTH LAKESHORE DR.
SOUTH LAKESHORE DR.

Divisions Awarded

Exhibit 4
Work Orders

ACCOUNT NUMBER _____ DATE 6-20-21

NAME _____

ADDRESS Oak Ct in curve

LOCATION _____

COLLECT DEPOSIT NO YES AMOUNT \$ _____

COLLECT SVC. CHG. NO YES AMOUNT \$ _____

RECON. FEE NO YES AMOUNT \$ _____

DELINQUENT BILL COLLECT AMOUNT \$ _____

LOCK METER NO YES LEAK NO YES UNLOCK METER NO YES

METER SIZ. _____ SERIAL NUMBER _____

METER READING _____ MATERIALS USED 25' 4" PVC 4" Bolted

caping 10 ton gravel

TIME: SETTING METERS _____ REPAIRING LEAKS _____

ISSUED BY _____ JOB DONE BY BS SF

ACCOUNT NUMBER _____ DATE 8-6-21 _____ 2

NAME _____

ADDRESS _____

LOCATION Carr Cemetery Rd

COLLECT DEPOSIT NO YES AMOUNT \$ _____

COLLECT SVC. CHG. NO YES AMOUNT \$ _____

RECON. FEE NO YES AMOUNT \$ _____

DELINQUENT BILL COLLECT AMOUNT \$ _____

LOCK METER NO YES LEAK NO YES UNLOCK METER NO YES

METER SET _____ SERIAL NUMBER _____

METER READING _____ MATERIALS USED 2 4" bolted couplers, 6' 4" PVC

TIME: SETTING METERS _____ REPAIRING LEAKS _____

ISSUED BY _____ JOB DONE BY DL, JL

ACCOUNT NUMBER _____ DATE 8-26-21

NAME _____

ADDRESS Water fowl way

LOCATION _____

COLLECT DEPOSIT NO YES AMOUNT \$ _____ Cross Country line

COLLECT SVC. CHG. NO YES AMOUNT \$ _____

RECON. FEE NO YES AMOUNT \$ _____ leaking/ Double Feed

DELINQUENT BILL COLLECT AMOUNT \$ _____

LOCK METER NO YES LEAK NO YES UNLOCK METER NO YES

METER SET _____ SERIAL NUMBER _____

METER READING _____ MATERIALS USED 6" cap, 6" Trans glass pack

concrete block 4" slip casing

TIME: SETTING METERS _____ REPAIRING LEAKS _____

ISSUED BY _____ JOB DONE BY Crew

ACCOUNT NUMBER _____ DATE 8-31-21 _____ 4

NAME _____

ADDRESS _____

LOCATION Across from John Bell

COLLECT DEPOSIT NO YES AMOUNT \$ _____ Main leaking

COLLECT SVC. CHG. NO YES AMOUNT \$ _____

RECON. FEE NO YES AMOUNT \$ _____

DELINQUENT BILL COLLECT AMOUNT \$ _____

LOCK METER NO YES LEAK NO YES UNLOCK METER NO YES

METER SET _____ SERIAL NUMBER _____

METER READING _____ MATERIALS USED 4" AC clamp

TIME: SETTING METERS _____ REPAIRING LEAKS _____

ISSUED BY _____ JOB DONE BY Crew

ACCOUNT NUMBER _____ DATE 10-18-21 _____ 5

NAME _____

ADDRESS Dak Ct _____

LOCATION _____

COLLECT DEPOSIT NO YES AMOUNT \$ _____ *Service leak*

COLLECT SVC. CHG. NO YES AMOUNT \$ _____ *↓*

RECON. FEE NO YES AMOUNT \$ _____ *Main leak*

DELINQUENT BILL COLLECT AMOUNT \$ _____

LOCK METER NO YES LEAK NO YES UNLOCK METER NO YES

METER SET _____ SERIAL NUMBER _____

METER READING _____ MATERIALS USED 4" AC clamp _____

TIME: SETTING METERS _____ REPAIRING LEAKS _____

ISSUED BY _____ JOB DONE BY DL SF _____

ACCOUNT NUMBER _____ DATE 10-21-21

NAME _____

ADDRESS Cardinal Circle

LOCATION _____

COLLECT DEPOSIT NO YES AMOUNT \$ _____ Busted 4" AC coupling

COLLECT SVC. CHG. NO YES AMOUNT \$ _____

RECON. FEE NO YES AMOUNT \$ _____

DELINQUENT BILL COLLECT AMOUNT \$ _____

LOCK METER NO YES LEAK NO YES UNLOCK METER NO YES

METER SET _____ SERIAL NUMBER _____

METER READING _____ MATERIALS USED 4" AC 150 12.5" clamp

4 ton gravel

TIME: SETTING METERS _____ REPAIRING LEAKS _____

ISSUED BY _____ JOB DONE BY BS DL SF

ACCOUNT NUMBER _____ DATE 10-21-21 _____

7

NAME _____

ADDRESS Across from Fish Island Blue Springs rd

LOCATION _____

COLLECT DEPOSIT NO YES AMOUNT \$ _____ Busted Main

COLLECT SVC. CHG. NO YES AMOUNT \$ _____

RECON. FEE NO YES AMOUNT \$ _____ Pennyroyal - no ticket

DELINQUENT BILL COLLECT AMOUNT \$ _____

LOCK METER NO YES LEAK NO YES UNLOCK METER NO YES

METER SET _____ SERIAL NUMBER _____

METER READING _____ MATERIALS USED 8"x15" AC 200 clamp

TIME: SETTING METERS _____ REPAIRING LEAKS _____

ISSUED BY _____ JOB DONE BY Crew

ACCOUNT NUMBER _____ DATE 10-21-21 _____ 8

NAME _____

ADDRESS Heron Point _____

LOCATION _____

COLLECT DEPOSIT NO YES AMOUNT \$ _____ Busted 4" AC coupling

COLLECT SVC. CHG. NO YES AMOUNT \$ _____

RECON. FEE NO YES AMOUNT \$ _____

DELINQUENT BILL COLLECT AMOUNT \$ _____

LOCK METER NO YES LEAK NO YES UNLOCK METER NO YES

METER SET _____ SERIAL NUMBER _____

METER READING _____ MATERIALS USED 4" AC 150x12.5 clamp

TIME: SETTING METERS _____ REPAIRING LEAKS _____

ISSUED BY _____ JOB DONE BY BS DL SF

11-9-21

Canton-Blue Springs rd / Shelby Johnson yard

8" AC Main Burst

15' 8" Pvc, 2 8" balled
couplings)

2 concrete blocks

Crew + Mike

ACCOUNT NUMBER _____ DATE 11-9-21

NAME _____

ADDRESS Across from Fish Island

LOCATION _____

COLLECT DEPOSIT NO YES AMOUNT \$ _____ *Penroyal hit 8" AC*

COLLECT SVC. CHG. NO YES AMOUNT \$ _____

RECON. FEE NO YES AMOUNT \$ _____

DELINQUENT BILL COLLECT AMOUNT \$ _____

LOCK METER NO YES LEAK NO YES UNLOCK METER NO YES

METER SET _____ SERIAL NUMBER _____

METER READING _____ MATERIALS USED 8x15 AC 200 clamp

TIME: SETTING METERS _____ REPAIRING LEAKS _____

ISSUED BY _____ JOB DONE BY Crew

ACCOUNT NUMBER _____ DATE 2-18-22

NAME _____

ADDRESS Corner of Rock Castle Lakeshore

LOCATION _____

COLLECT DEPOSIT NO YES AMOUNT \$ _____ Main listed

COLLECT SVC. CHG. NO YES AMOUNT \$ _____

RECON. FEE NO YES AMOUNT \$ _____

DELINQUENT BILL COLLECT AMOUNT \$ _____

LOCK METER NO YES LEAK NO YES UNLOCK METER NO YES

METER SET _____ SERIAL NUMBER _____

METER READING _____ MATERIALS USED 10' PVC 4", 4" Balled coupling

TIME: SETTING METERS _____ REPAIRING LEAKS _____

ISSUED BY _____ JOB DONE BY BS SL DC

Heron Point

5-16-22

4" AC busted

13' 4" PVC 2 4" bolted Couplings

Crew

WORK ORDER

ACCOUNT NUMBER _____ **DATE** 8-5-22

NAME _____

ADDRESS Golden Rod Main leak

LOCATION _____ **TIME OFF** _____ **TIME ON** _____

METER READING _____ **SERIAL #** _____ **FLUSHED** _____ **Cl₂** _____

CUSTOMER CHARGES \$ _____ **FOR** _____

MATERIALS USED 8 ton gravel 5' 4" PVC 2 4" Slip Couplings.

NOTES _____

ISSUED BY _____ **JOB DONE BY** Crew

Vicki print.com

Main leak

WORK ORDER

ACCOUNT NUMBER _____ **DATE** 8-6-22

NAME _____

ADDRESS Kl Avenue

LOCATION _____ **TIME OFF** _____ **TIME ON** _____

METER READING _____ **SERIAL #** _____ **FLUSHED** _____ **Cl** _____

CUSTOMER CHARGES \$ _____ **FOR** _____

MATERIALS USED 4" AC 200 clamp

NOTES _____

ISSUED BY _____ **JOB DONE BY** Crew

Vicki print.com

8-16-22

4 way Stop-N-Go

Man busted
4" AC

2 4" Hyrax 8' 4" PVC

BS SF DL

Golden Road

9-1-22

main break

4" AC clamp 3 ton gravel

Crew

9-10-22 17

ronny drive

main break

4" AC clamp

SF DC JL

Colden rod

9-10-22

Exhibit 4

18

man break

6' 4" PVC

2 4" Hymax

SF DC SL

ACCOUNT NUMBER _____ DATE 9-27-21

NAME _____

ADDRESS Bridge D. back of loop

LOCATION _____

COLLECT DEPOSIT NO YES AMOUNT \$ _____ Main leak

COLLECT SVC. CHG. NO YES AMOUNT \$ _____

RECON. FEE NO YES AMOUNT \$ _____

DELINQUENT BILL COLLECT AMOUNT \$ _____

LOCK METER NO YES LEAF NO YES UNLOCK METER NO YES

METER SET _____ SERIAL NUMBER _____

METER READING _____ MATERIALS USED 10' 4" AC

2 4" belted caps

TIME: SETTING METERS _____ REPAIRING LEAKS _____

ISSUED BY _____ JOB DONE BY Crew

dye Dr. back of loop

Main leak

4" AC 200 x 12.5
Clamp

Crew

Main leak

WORK ORDER

ACCOUNT NUMBER _____ **DATE** 10-16-22

NAME _____

ADDRESS BSE + Shady

LOCATION _____ **TIME OFF** _____ **TIME ON** _____

METER READING _____ **SERIAL #** _____ **FLUSHED** _____ **Ch** _____

CUSTOMER CHARGES \$ _____ **FOR** _____

MATERIALS USED 4' 4" PVC, 4" slip coupling, small load gravel

NOTES _____

ISSUED BY _____ **JOB DONE BY** DL 52

Vicki print.com

Main leak

WORK ORDER

ACCOUNT NUMBER _____ **DATE** 10-17-22

NAME _____

ADDRESS 365 Grays Shady Ln

LOCATION _____ **TIME OFF** _____ **TIME ON** _____

METER READING _____ **SERIAL #** _____ **FLUSHED** _____ **Cl₂** _____

CUSTOMER CHARGES \$ _____ **FOR** _____

MATERIALS USED 6" AC 150 clamp

NOTES _____

ISSUED BY _____ **JOB DONE BY** Crew

Main leak

WORK ORDER

ACCOUNT NUMBER _____ **DATE** 10-18-22

NAME _____

ADDRESS 46 Nancy Ave.

LOCATION _____ **TIME OFF** _____ **TIME ON** _____

METER READING _____ **SERIA. #** _____ **FLUSHED** _____ **Cl₂** _____

CUSTOMER CHARGES \$ _____ **FOR** _____

MATERIALS USED 4" AC 150 clamp

NOTES _____

ISSUED BY _____ **JOB DONE BY** Crew

Must leak

WORK ORDER

ACCOUNT NUMBER _____ DATE 10-19-22

NAME _____

ADDRESS Bluebird Dr.

LOCATION _____ TIME OFF _____ TIME ON _____

METER READING _____ SERIAL # _____ FLUSHED _____ Clz _____

CUSTOMER CHARGES \$ _____ FOR _____

MATERIALS USED 4' AC 200 clamp

NOTES _____

ISSUED BY _____ JOB DONE BY Crew

Man leak

WORK ORDER

ACCOUNT NUMBER _____ **DATE** 2-7-23

NAME _____

ADDRESS 365 Grays Millview

LOCATION _____ **TIME OFF** _____ **TIME ON** _____

METER READING _____ **SERIAL #** _____ **FLUSHED** _____ **Ch** _____

CUSTOMER CHARGES \$ _____ **FOR** _____

MATERIALS USED 2 3" caps 2 3" glass pipes 2 concrete blocks

NOTES _____

ISSUED BY _____ **JOB DONE BY** Crew

Main leak

WORK ORDER

ACCOUNT NUMBER _____ **DATE** 3-6-23

NAME _____

ADDRESS 197 Ferrel Circle

LOCATION _____ **TIME OFF** _____ **TIME ON** _____

METER READING _____ **SERIAL #** _____ **FLUSHED** _____ **Ch** _____

CUSTOMER CHARGES \$ _____ **FOR** _____

MATERIALS USED 3x2" redner 2-glar packs 5' 2" PVC

NOTES _____

ISSUED BY _____ **JOB DONE BY** crew

Main break

8-2-23

Corner of Blue Water + Southview

18" 4" Ductile, 4" Hymax, 6 ton Gravel

B + J

Main break

Nancy Ave.

2' 4" PVC
2' 4" Hymax

J+G

4-22-24

Main break

Dogwood CT - Goldenrod

20' 4" PVC

~~20'~~ 3 for rock

Crew

Main break

5.16-24

1910 Grosse Holton
Oak CT

2' 4" Ductile
4" Valve
2 4" Gln packs
2' 4" PVC
4" Hymex

DDC

ACCOUNT NUMBER _____ DATE _____ 31

NAME _____

ADDRESS Goose Hollow between Birchwood & Wallace Cem.

LOCATION _____

COLLECT DEPOSIT NO YES AMOUNT \$ _____ *Main busted*

COLLECT SVC. CHG. NO YES AMOUNT \$ _____

RECON. FEE NO YES AMOUNT \$ _____

DELINQUENT BILL COLLECT AMOUNT \$ _____

LOCK METER NO YES LEAK NO YES UNLOCK METER NO YES

METER SET _____ SERIAL NUMBER _____

METER READING _____ MATERIALS USED 3' 6" PVC 2 6" bolted couplings

TIME: SETTING METERS _____ REPAIRING LEAKS _____

ISSUED BY _____ JOB DONE BY SL DL

Exhibit 5
Preliminary
Engineering Report

Preliminary Engineering Report

BLWD – Lakeside Waterline Replacement

Barkley Lake Water District
Trigg County, Kentucky



May 2024

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Preliminary Engineering Report

Lakeside Water Line Replacement Project

I. Introduction

The Barkley Lake Water District (BLWD) desires to provide more reliable water service to the customers in residential areas east of Lake Barkley. The distribution lines were constructed primarily in 1965 when the system was started and are constructed of asbestos cement (AC) pipe. Although the system was adequate at the time, due to age, it is making it increasingly difficult and costly for the BLWD to operate and maintain the system in a reliable manner. The current system is experiencing breaks and in need of replacement to allow BLWD to continue to supply an adequate, safe, reliable water supply for its customers in this area.

In the project area, existing distribution lines need to be replaced with new lines of the same size as existing. The existing AC lines will be abandoned in place when taken out of service. The area contains much variation in elevation which tends to give some higher-pressure areas which exacerbates the breakage on fragile lines.

The proposed improvements should reduce the number of service interruptions through replacement of the deteriorated piping. The safety of the system workers would also be a consideration since repairs on these AC lines can cause asbestos exposure.

II. Planning Area

The area of focus is residential subdivisions on the east side of Lake Barkley which is the west side of the BLWD service area. It includes all or part of 58 roads in eight (8) subdivision areas. These were some of the earliest water lines in the system. The areas and road listing are shown in attached Map 1 and Appendix B.

III. Existing Facilities

The Barkley Lake Water District owns and maintains all water services in their service area and produces water in their own 4 million gallon per day water plant. Based upon the information provided by the Water Resource Information System (WRIS) Asset Inventory, the Barkley Lake Water District distribution system is comprised of approximately 2,621,902 total feet of distribution lines six (6) pressure zones and nine (9) water storage tanks listed as follows:

PVC PIPE

Size	Feet
2"	149,678
3"	40,976
4"	264,141
6"	156,241
8"	67,854
10"	871
12"	19,282
16"	4,845
TOTAL	560,354

ASBESTOS CEMENT PIPE

Size	Feet
2"	149,678
3"	517,939
4"	752,661
6"	442,417
8"	138,372
10"	24
12"	22,711
14"	9,742
16"	9,269
TOTAL	2,042,813

DUCTILE IRON PIPE

Size	Feet
12"	1,250
16"	17,485
TOTAL	18,735

WATER STORAGE TANKS

Name:	Capacity (Gal.):
Cerulean Tank	150,000
Cerulean Tank	300,000
Pete Light Tank	200,000
Pete Light Tank #2	1,000,000
Rogers Tank	450,000
Siloam Tank	300,000
South Road 1	50,000
South Road 2	300,000
Water Plant	500,000
Total Storage	3,250,000

Additional components in the system includes five (5) pumping stations.

According to the Kentucky Infrastructure Authority's "Drinking Water System Information" page, The Barkley Lake Water District operational statistics are as follows:

Total Annual Volume Produced (MG):	514.008	
Total Annual Volume Purchased (MG):	0	
Total Annual Volume Provided (MG):	514.008	
Estimated Annual Water Loss:	11%	
Wholesale Customers:	4	Usage (MG): 108.705
Residential Customers:	5,669	Usage (MG): 241.175
Commercial Customers:	68	Usage (MG): 8.590
Institutional	17	Usage (MG): 97.791
Industrial Customers:	6	Usage (MG): 0.368
Other	1	Usage (MG): 1.728
Total Customers:	5,765	
Flushing, Maintenance and Fire Protection Usage (MG):		0.645
Total Water Usage (MG):		459.002

The distribution system was constructed was started in 1965. As noted in the pipe inventory the system contains a large quantity of AC pipe.

The Barkley Lake Water District system is currently in compliance with all Federal and State Regulations regarding the sanitary features of the distribution system

IV. Need for the Project

In the proposed project areas, all of the existing water distribution lines are AC lines installed in the 1960s. The terrain in the area has much relief since it drops down to Lake Barkley. This terrain caused increased operational pressures due to static head for the elevation. The increased pressures make breaks of deteriorated piping more prevalent. Repairs on AC pipe is a safety hazard to system employees.

V. Alternatives

BLWD - Lakeside Waterline Replacement

Alternative 1: Replace the AC piping with PVC piping.

Alternative 2: Replace the AC piping with ductile iron piping.

Alternative 3: Leave system the way it is.

VI. Proposed Project

BLWD - Lakeside Waterline Replacement

The project will replace approximately 98,865 linear feet of three (3), four (4) and six (6) inch Asbestos Cement (AC) water line. The water lines were installed in when the water district was created in 1965. The lines have deteriorated and have created numerous leaks and can be a health hazard to personnel working on them.

VII. Environmental Impacts

All of the line construction is replacing the existing asbestos cement water mains, and the new lines will be laid adjacent to the existing lines.

VIII. Land Requirements

The project will be constructed on property on which the BLWD already holds easements, and/or State and County Roadway Right-of Ways.

IX. Construction Problems

Construction will take place in primarily established residential subdivisions. Proper property protection and surface restoration will be of the utmost importance.

X. Hydraulic Calculations

A KYPIPE 2010 model will be developed from system schematics and discussions with system operators. Demand data is being developed from meter books and their associated routes. Tank overflow elevations will be provided by BLWD. The results of the hydraulic analysis will be available on request.

XI. Opinions of Probable Project Costs

Opinion of Probable Construction Costs

Opinions of probable construction costs are provided in the Table 1 below.

A detailed opinion of probable construction costs is listed in Appendix B.

Table 1

Item	Description	Size	Quantity (ft)	Total Cost
1	Division A	3,4,6-inch	10,967	\$440,694.25
2	Division B	4,6-inch	12,660	\$483,472.00
3	Division C	4-inch	11,575	\$331,201.25
4	Division D	3,4-inch	14,364	\$452,156.00
5	Division E	4-inch	10,708	\$311,832.00
6	Division F	4-inch	11,263	\$360,893.25
7	Division G	4,6-inch	11,675	\$388,281.00
8	Division H	4,6-inch	15,653	\$593,070.00
Preliminary Opinion of Probable Construction Costs				\$3,361,599.75

Opinion of Probable Projects Costs

Opinions of probable project costs are provided in the Table 2 below.

Table 2

Lakeside Waterline Replacement		
Opinion of Probable Project Costs		
Total Project		
Administration		\$50,00
Engineering Fees-Planning, Design, Bidding and Construction		\$302,305
Engineering Fees-Inspection		\$119,680
Construction ¹		\$3,361,179
Contingencies		\$298,453
Total		\$4,055,093

XII. Annual Operating Budget

The annual operating budget will be made available on request.

¹Budget revised in May 2024 for final design quantities is \$3,361,599.75

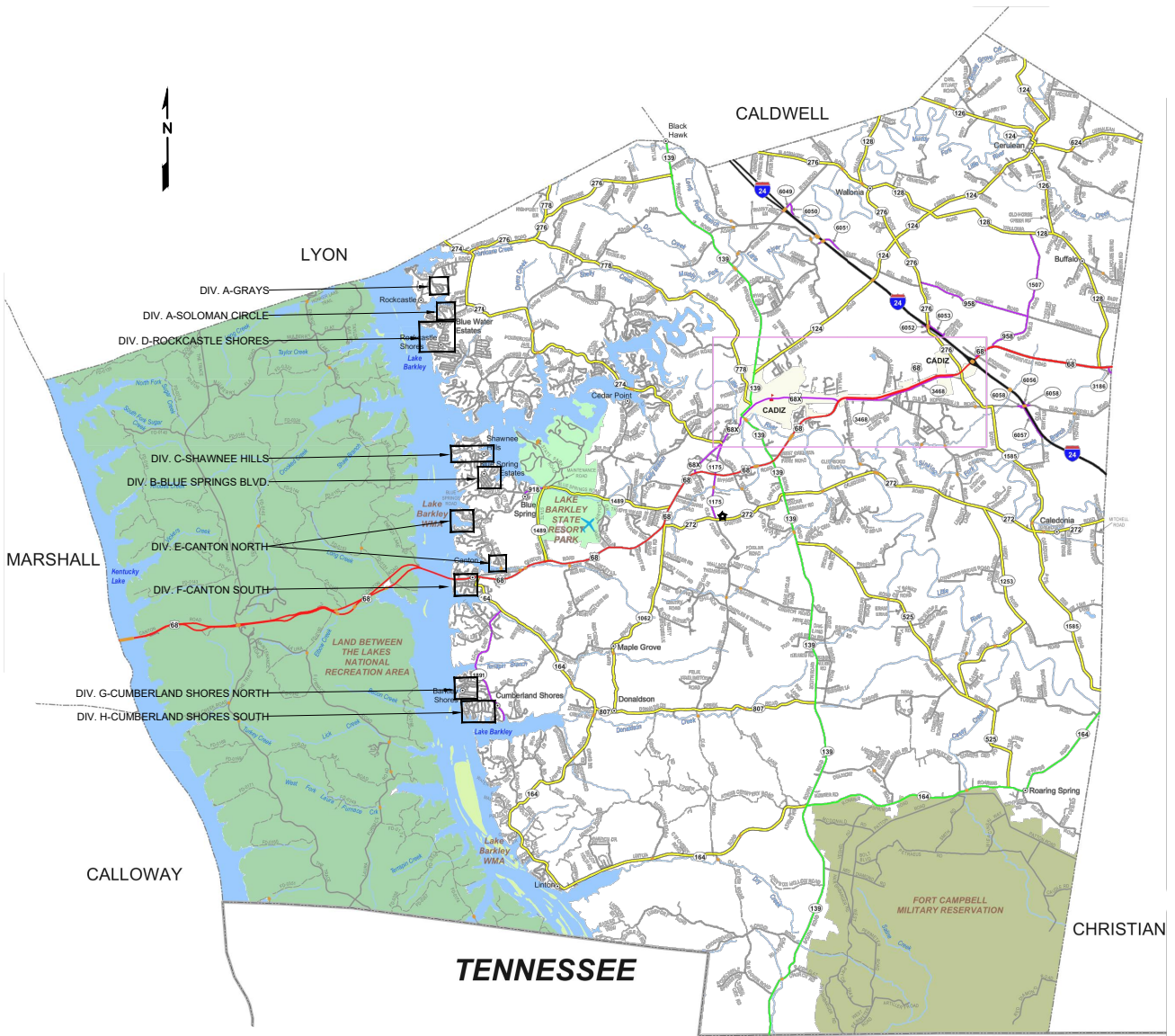
XIII. Conclusion and Recommendations

The distribution system upgrades outlined in this report will substantially increase the reliability of the BLWD system and provide for a safer environment for maintenance. Raw material prices were compared for ductile iron (DI) pipe versus PVC pipe. The smaller diameter DI pipe is significantly more expensive than the PVC and the gap closed as the size increased. Based upon the mix of sizes the material only increase to use DI pipe would be \$3,495,530 higher plus the typically higher installation costs. Therefore, the recommendation would be to replace the AC distribution lines with the same size of PVC piping.

Map #1:

Lakeside Waterline Replacement Project Area

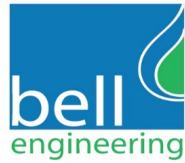
LAKESIDE AREA WATER LINE REPLACEMENT



TRIGG COUNTY
VICINITY MAP
NOT TO SCALE

Appendix A:

Detailed Opinion of Probable Construction and Project Cost



Lexington, KY | 859.278.5412
 Hopkinsville, KY | 270.886.5466
 Somerset, KY | 606.485.4011

OPINION OF PROBABLE PROJECT COST

Project: Lakeside Area Water Line Replacements

Client: Barkley Lake Water District

No Design Completed

Date: May 2024

Contract No.: 586-012

Preliminary

Est. By: RLP

Checked By: RLP


Final Design


SHEET:


OF:

Drawing No.:

ITEM NO.	ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST
		NO.	UNIT	PER UNIT	TOTAL	
Div A						
1	6" SDR 17 PVC	4180	LF	\$25.50	\$106,590.00	\$106,590.00
2	4" SDR 17 PVC	6187	LF	\$17.75	\$109,819.25	\$109,819.25
3	3" SDR 17 PVC	600	LF	\$12.75	\$7,650.00	\$7,650.00
4	6" DIMJ Gate Valve	4	EA	\$1,250.00	\$5,000.00	\$5,000.00
5	4" DIMJ Gate Valve	7	EA	\$1,000.00	\$7,000.00	\$7,000.00
6	3" DIMJ Gate Valve	4	EA	\$800.00	\$3,200.00	\$3,200.00
7	Flush Hydrant Assembly	6	EA	\$2,500.00	\$15,000.00	\$15,000.00
8	6" Tapping Sleeve & Valve	5	EA	\$4,500.00	\$22,500.00	\$22,500.00
9	4" Tapping Sleeve & Valve	1	EA	\$3,500.00	\$3,500.00	\$3,500.00
10	Locate & Reconnect Existing Water Service	71	EA	\$350.00	\$24,850.00	\$24,850.00
11	3/4" Corp Stop & Saddle for 6" PVC Pipe	19	EA	\$150.00	\$2,850.00	\$2,850.00
12	3/4" Corp Stop & Saddle for 4" PVC Pipe	49	EA	\$100.00	\$4,900.00	\$4,900.00
13	3/4" Corp Stop & Saddle for 3" PVC Pipe	3	EA	\$75.00	\$225.00	\$225.00
14	3/4" Polyethylene Service Tubing	340	LF	\$10.00	\$3,400.00	\$3,400.00
15	Cut, Plug & Block Existing Watermain to Remain in Service	4	EA	\$500.00	\$2,000.00	\$2,000.00
16	Cut, Plug & Block Existing Watermain to Be Abandoned	4	EA	\$250.00	\$1,000.00	\$1,000.00
17	Tie-in To Existing 3" Waterline	1	EA	\$300.00	\$300.00	\$300.00
18	Tie-in To Existing 4" Waterline	1	EA	\$400.00	\$400.00	\$400.00
19	Tie-in To Existing 6" Waterline	1	EA	\$500.00	\$500.00	\$500.00
20	Trench Width Bituminous Paving	1759	LF	\$30.00	\$52,770.00	\$52,770.00
21	Trench Width Concrete Drive Repair	40	LF	\$50.00	\$2,000.00	\$2,000.00
22	Trench Width Gravel Drive Repair	263	LF	\$10.00	\$2,630.00	\$2,630.00
23	Crushed Stone Backfill of Streets & Drives	2062	LF	\$30.00	\$61,860.00	\$61,860.00
24	Search & Extra Depth Excavation, On Order of Engineer	10	CY	\$25.00	\$250.00	\$250.00
25	Extra for Rip-Rap Stone, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00
26	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00
						\$440,694.25

 Lexington, KY 859.278.5412 Hopkinsville, KY 270.886.5466 Somerset, KY 606.485.4011		OPINION OF PROBABLE PROJECT COST				
		Project: Lakeside Area water Line Replacements		Client: Barkley Lake Water District		<input type="checkbox"/> No Design Completed
		Date: May 2024 Est. By: RLP		Contract No.: 586-012 Checked By: RLP		<input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final Design
		SHEET:		OF:		Drawing No.:
ITEM NO.	ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST
		NO.	UNIT	PER UNIT	TOTAL	
Div B						
1	6" SDR 17 PVC	1928	LF	\$25.50	\$49,164.00	\$49,164.00
2	4" SDR 17 PVC	10732	LF	\$17.75	\$190,493.00	\$190,493.00
3	4" DIMJ Gate Valve	12	EA	\$1,000.00	\$12,000.00	\$12,000.00
4	Flush Hydrant Assembly	8	EA	\$2,500.00	\$20,000.00	\$20,000.00
5	6" Tapping Sleeve & Valve	1	EA	\$4,500.00	\$4,500.00	\$4,500.00
6	Locate & Reconnect Exist. Water Service	134	EA	\$350.00	\$46,900.00	\$46,900.00
7	3/4" Corp Stop & Saddle for 6" PVC Pipe	13	EA	\$150.00	\$1,950.00	\$1,950.00
8	3/4" Corp Stop & Saddle for 4" PVC Pipe	121	EA	\$100.00	\$12,100.00	\$12,100.00
9	3/4" Polyethylene Service Tubing	635	LF	\$10.00	\$6,350.00	\$6,350.00
10	Cut, Plug & Block Existing Watermain to Be Abandoned	8	EA	\$250.00	\$2,000.00	\$2,000.00
11	Tie-in To Existing 4" Waterline	9	EA	\$400.00	\$3,600.00	\$3,600.00
12	Trench Width Bituminous Paving	2119	LF	\$30.00	\$63,570.00	\$63,570.00
13	Trench Width Concrete Drive Repair	80	LF	\$50.00	\$4,000.00	\$4,000.00
14	Crushed Stone Backfill of Streets & Drives	2199	LF	\$30.00	\$65,970.00	\$65,970.00
15	Search & Extra Depth Excavation, On Order of Engineer	5	CY	\$25.00	\$125.00	\$125.00
16	Extra for Rip-Rap Stone, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00
17	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer	20	Ton	\$25.00	\$500.00	\$500.00
						\$483,472.00

ITEM NO.		ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST
			NO.	UNIT	PER UNIT	TOTAL	
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 30%;">  <p>Lexington, KY 859.278.5412 Hopkinsville, KY 270.886.5466 Somerset, KY 606.485.4011</p> </div> <div style="width: 40%; text-align: center;"> <h3>OPINION OF PROBABLE PROJECT COST</h3> <p>Project: Lakeside Area Water Line Replacements Client: Barkley Lake Water District</p> <p>Date: May 2024 Contract No.: 586-012</p> <p>Est. By: RLP Checked By: RLP</p> <p>SHEET: _____ OF: _____</p> </div> <div style="width: 25%; border-left: 1px solid black; padding-left: 5px;"> <input type="checkbox"/> No Design Completed <input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final Design </div> </div>							
							Drawing No.:
Div C							
1	4" SDR 17 PVC	11575	LF	\$17.75	\$205,456.25	\$205,456.25	
2	4" DIMJ Gate Valve	12	EA	\$1,000.00	\$12,000.00	\$12,000.00	
3	Flush Hydrant Assembly	3	EA	\$2,500.00	\$7,500.00	\$7,500.00	
4	6" Tapping Sleeve & Valve	2	EA	\$4,500.00	\$9,000.00	\$9,000.00	
5	4" Tapping Sleeve & Valve	1	EA	\$3,500.00	\$3,500.00	\$3,500.00	
6	Locate & Reconnect Exist. Water Service	49	EA	\$350.00	\$17,150.00	\$17,150.00	
7	3/4" Corp Stop & Saddle for 4" PVC Pipe	49	EA	\$100.00	\$4,900.00	\$4,900.00	
8	3/4" Polyethylene Service Tubing	245	LF	\$10.00	\$2,450.00	\$2,450.00	
9	Cut, Plug & Block Existing Watermain to Remain in Service	2	EA	\$500.00	\$1,000.00	\$1,000.00	
10	Cut, Plug & Block Existing Watermain to Be Abandoned	5	EA	\$250.00	\$1,250.00	\$1,250.00	
11	Tie-in To Existing 2" Watermain	1	EA	\$250.00	\$250.00	\$250.00	
12	Tie-in To Existing 4" Watermain	6	EA	\$350.00	\$2,100.00	\$2,100.00	
13	Trench Width Bituminous Paving	1027	LF	\$30.00	\$30,810.00	\$30,810.00	
14	Trench Width Concrete Drive Repair	20	LF	\$50.00	\$1,000.00	\$1,000.00	
15	Trench Width Gravel Drive Repair	20	LF	\$10.00	\$200.00	\$200.00	
16	Crushed Stone Backfill of Streets & Drives	1067	LF	\$30.00	\$32,010.00	\$32,010.00	
17	Search & Extra Depth Excavation, On Order of Engineer	5	CY	\$25.00	\$125.00	\$125.00	
18	Extra for Rip-Rap Stone, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
19	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
						\$331,201.25	

ITEM NO.		ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST
			NO.	UNIT	PER UNIT	TOTAL	
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 30%;">  <p>Lexington, KY 859.278.5412 Hopkinsville, KY 270.886.5466 Somerset, KY 606.485.4011</p> </div> <div style="width: 40%; text-align: center;"> <h3>OPINION OF PROBABLE PROJECT COST</h3> <p>Project: Lakeside Area Water Line Replacements Client: Barkley Lake Water District</p> <p>Date: May 2024 Contract No.: 586-012</p> <p>Est. By: RLP Checked By: RLP</p> <p>SHEET: _____ OF: _____</p> </div> <div style="width: 25%; border: 1px solid black; padding: 5px;"> <input type="checkbox"/> No Design Completed <input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final Design </div> </div>							
							Drawing No.:
Div D							
1	4" SDR 17 PVC	13554	LF	\$17.75	\$240,583.50	\$240,583.50	
2	3" SDR 17 PVC	810	LF	\$12.75	\$10,327.50	\$10,327.50	
3	4" DIMJ Gate Valve	10	EA	\$1,000.00	\$10,000.00	\$10,000.00	
4	3" DIMJ Gate Valve	3	EA	\$800.00	\$2,400.00	\$2,400.00	
5	Flush Hydrant Assembly	8	EA	\$2,500.00	\$20,000.00	\$20,000.00	
6	6" Tapping Sleeve & Valve	5	EA	\$4,500.00	\$22,500.00	\$22,500.00	
7	4" Tapping Sleeve & Valve	1	EA	\$3,500.00	\$3,500.00	\$3,500.00	
8	Locate & Reconnect Exist. Water Service	79	EA	\$350.00	\$27,650.00	\$27,650.00	
9	3/4" Corp Stop & Saddle for 4" PVC Pipe	78	EA	\$100.00	\$7,800.00	\$7,800.00	
10	3/4" Corp Stop & Saddle for 3" PVC Pipe	1	EA	\$100.00	\$100.00	\$100.00	
11	3/4" Polyethylene Service Tubing	395	LF	\$10.00	\$3,950.00	\$3,950.00	
12	Cut, Plug & Block Existing Watermain to Remain in Service	1	EA	\$500.00	\$500.00	\$500.00	
13	Cut, Plug & Block Existing Watermain to Be Abandoned	20	EA	\$250.00	\$5,000.00	\$5,000.00	
14	Tie-in To Existing 3" Waterline	1	EA	\$300.00	\$300.00	\$300.00	
15	Tie-in To Existing 4" Waterline	5	EA	\$400.00	\$2,000.00	\$2,000.00	
16	Trench Width Bituminous Paving	1280	LF	\$30.00	\$38,400.00	\$38,400.00	
17	Trench Width Gravel Drive Repair	453	LF	\$10.00	\$4,530.00	\$4,530.00	
18	Crushed Stone Backfill of Streets & Drives	1733	LF	\$30.00	\$51,990.00	\$51,990.00	
19	Search & Extra Depth Excavation, On Order of Engineer	5	CY	\$25.00	\$125.00	\$125.00	
20	Extra for Rip-Rap Stone, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
21	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
						\$452,156.00	

ITEM NO.		ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST
			NO.	UNIT	PER UNIT	TOTAL	
Div E							
1	4" SDR 17 PVC		10708	LF	\$17.75	\$190,067.00	\$190,067.00
2	4" DIMJ Gate Valve		11	EA	\$1,000.00	\$11,000.00	\$11,000.00
3	Flush Hydrant Assembly		3	EA	\$2,500.00	\$7,500.00	\$7,500.00
4	6" Tapping Sleeve & Valve		1	EA	\$4,500.00	\$4,500.00	\$4,500.00
5	4" Tapping Sleeve & Valve		1	EA	\$3,500.00	\$3,500.00	\$3,500.00
6	Locate & Reconnect Exist. Water Service		67	EA	\$350.00	\$23,450.00	\$23,450.00
7	3/4" Corp Stop & Saddle for 4" PVC Pipe		67	EA	\$100.00	\$6,700.00	\$6,700.00
8	3/4" Polyethylene Service Tubing		335	LF	\$10.00	\$3,350.00	\$3,350.00
9	Cut, Plug & Block Existing Watermain to Remain in Service		2	EA	\$500.00	\$1,000.00	\$1,000.00
10	Cut, Plug & Block Existing Watermain to Be Abandoned		1	EA	\$250.00	\$250.00	\$250.00
11	Tie-in To Existing 2" Waterline		1	EA	\$250.00	\$250.00	\$250.00
12	Tie-in To Existing 4" Waterline		2	EA	\$400.00	\$800.00	\$800.00
13	Trench Width Bituminous Paving		964	LF	\$30.00	\$28,920.00	\$28,920.00
14	Trench Width Gravel Drive Repair		25	LF	\$10.00	\$250.00	\$250.00
15	Crushed Stone Backfill of Streets & Drives		989	LF	\$30.00	\$29,670.00	\$29,670.00
16	Search & Extra Depth Excavation, On Order of Engineer		5	CY	\$25.00	\$125.00	\$125.00
17	Extra for Rip-Rap Stone, On Order of the Engineer		10	Ton	\$25.00	\$250.00	\$250.00
18	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer		10	Ton	\$25.00	\$250.00	\$250.00
							\$311,832.00



Lexington, KY | 859.278.5412
 Hopkinsville, KY | 270.886.5466
 Somerset, KY | 606.485.4011

OPINION OF PROBABLE PROJECT COST

Project: Lakeside Area Water Line Replacements

Client: Barkley Lake Water District

No Design Completed

Date: May 2024

Contract No.: 586-012

Preliminary

Est. By: RLP


Checked By: RLP


Final Design

SHEET:

OF:

Drawing No.:

 Lexington, KY 859.278.5412 Hopkinsville, KY 270.886.5466 Somerset, KY 606.485.4011		OPINION OF PROBABLE PROJECT COST					
		Project: Rockcastle Area Water Improvements Date: May 2024 Est. By: RLP		Client: Barkley Lake Water District Contract No.: 586-012 Checked By: RLP		<input type="checkbox"/> No Design Completed <input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final Design	
		SHEET:		OF:		Drawing No.:	
ITEM NO.	ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST	
		NO.	UNIT	PER UNIT	TOTAL		
Div F							
1	4" SDR 17 PVC	11263	LF	\$17.75	\$199,918.25	\$199,918.25	
2	4" DIMJ Gate Valve	19	EA	\$1,000.00	\$19,000.00	\$19,000.00	
3	2" DIMJ Gate Valve	1	EA	\$750.00	\$750.00	\$750.00	
4	Flush Hydrant Assembly	3	EA	\$2,500.00	\$7,500.00	\$7,500.00	
5	8" Tapping Sleeve & Valve	1	EA	\$5,500.00	\$5,500.00	\$5,500.00	
6	Locate & Reconnect Exist. Water Service	64	EA	\$350.00	\$22,400.00	\$22,400.00	
7	3/4" Corp Stop & Saddle for 4" PVC Pipe	64	EA	\$100.00	\$6,400.00	\$6,400.00	
8	3/4" Polyethylene Service Tubing	320	LF	\$10.00	\$3,200.00	\$3,200.00	
9	Cut, Plug & Block Existing Watermain to Remain in Service	1	EA	\$500.00	\$500.00	\$500.00	
10	Cut, Plug & Block Existing Watermain to Be Abandoned	20	EA	\$250.00	\$5,000.00	\$5,000.00	
11	Tie-in To Existing 4" Waterline	13	EA	\$400.00	\$5,200.00	\$5,200.00	
12	Trench Width Bituminous Paving	1335	LF	\$30.00	\$40,050.00	\$40,050.00	
13	Trench Width Gravel Drive Repair	120	LF	\$10.00	\$1,200.00	\$1,200.00	
14	Crushed Stone Backfill of Streets & Drives	1455	LF	\$30.00	\$43,650.00	\$43,650.00	
15	Search & Extra Depth Excavation, On Order of Engineer	5	CY	\$25.00	\$125.00	\$125.00	
16	Extra for Rip-Rap Stone, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
17	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
						\$360,893.25	

ITEM NO.		ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST
			NO.	UNIT	PER UNIT	TOTAL	
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 30%;">  <p>Lexington, KY 859.278.5412 Hopkinsville, KY 270.886.5466 Somerset, KY 606.485.4011</p> </div> <div style="width: 40%; text-align: center;"> <h3>OPINION OF PROBABLE PROJECT COST</h3> <p>Project: Lakeside Area Water Line Replacements Client: Barkley Lake Water District</p> <p>Date: May 2024 Contract No.: 586-012</p> <p>Est. By: RLP Checked By: RLP</p> <p>SHEET: _____ OF: _____</p> </div> <div style="width: 25%; text-align: right;"> <input type="checkbox"/> No Design Completed <input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final Design </div> </div>							
							Drawing No.:
Div G							
1	6" SDR 17 PVC	5389	LF	\$25.50	\$137,419.50	\$137,419.50	
2	4" SDR 17 PVC	6286	LF	\$17.75	\$111,576.50	\$111,576.50	
3	6" DIMJ Gate Valve	3	EA	\$1,250.00	\$3,750.00	\$3,750.00	
4	4" DIMJ Gate Valve	11	EA	\$1,000.00	\$11,000.00	\$11,000.00	
5	3" DIMJ Gate Valve	1	EA	\$800.00	\$800.00	\$800.00	
6	Flush Hydrant Assembly	2	EA	\$2,500.00	\$5,000.00	\$5,000.00	
7	6" Tapping Sleeve & Valve	3	EA	\$4,500.00	\$13,500.00	\$13,500.00	
8	4" Tapping Sleeve & Valve	1	EA	\$3,500.00	\$3,500.00	\$3,500.00	
9	Locate & Reconnect Exist. Water Service	45	EA	\$350.00	\$15,750.00	\$15,750.00	
10	3/4" Corp Stop & Saddle for 6" PVC Pipe	14	EA	\$150.00	\$2,100.00	\$2,100.00	
11	3/4" Corp Stop & Saddle for 4" PVC Pipe	31	EA	\$100.00	\$3,100.00	\$3,100.00	
12	3/4" Polyethylene Service Tubing	225	LF	\$10.00	\$2,250.00	\$2,250.00	
13	Cut, Plug & Block Existing Watermain to Remain in Service	1	EA	\$500.00	\$500.00	\$500.00	
14	Cut, Plug & Block Existing Watermain to Be Abandoned	11	EA	\$250.00	\$2,750.00	\$2,750.00	
15	Tie-in To Existing 3" Watermain	1	EA	\$300.00	\$300.00	\$300.00	
16	Tie-in To Existing 4" Watermain	9	EA	\$400.00	\$3,600.00	\$3,600.00	
17	Tie-in To Existing 6" Watermain	1	EA	\$500.00	\$500.00	\$500.00	
18	Trench Width Bituminous Paving	899	LF	\$30.00	\$26,970.00	\$26,970.00	
19	Trench Width Concrete Drive Repair	24	LF	\$50.00	\$1,200.00	\$1,200.00	
20	Trench Width Gravel Drive Repair	360	LF	\$10.00	\$3,600.00	\$3,600.00	
21	Crushed Stone Backfill of Streets & Drives	1283	LF	\$30.00	\$38,490.00	\$38,490.00	
22	Search & Extra Depth Excavation, On Order of Engineer	5	CY	\$25.00	\$125.00	\$125.00	
23	Extra for Rip-Rap Stone, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
24	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
						\$388,281.00	

ITEM NO.		ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST
			NO.	UNIT	PER UNIT	TOTAL	
Div H							
1	6" SDR 17 PVC		647	LF	\$25.50	\$16,498.50	\$16,498.50
2	4" SDR 17 PVC		15006	LF	\$17.75	\$266,356.50	\$266,356.50
3	6" DIMJ Gate Valve		6	EA	\$1,250.00	\$7,500.00	\$7,500.00
4	4" DIMJ Gate Valve		1	EA	\$1,000.00	\$1,000.00	\$1,000.00
5	Flush Hydrant Assembly		9	EA	\$2,500.00	\$22,500.00	\$22,500.00
6	6" Tapping Sleeve & Valve		10	EA	\$4,500.00	\$45,000.00	\$45,000.00
7	4" Tapping Sleeve & Valve		3	EA	\$3,500.00	\$10,500.00	\$10,500.00
8	Locate & Reconnect Exist. Water Service		94	EA	\$350.00	\$32,900.00	\$32,900.00
9	3/4" Corp Stop & Saddle for 4" PVC Pipe		24	EA	\$100.00	\$2,400.00	\$2,400.00
10	3/4" Corp Stop & Saddle for 6" PVC Pipe		70	EA	\$150.00	\$10,500.00	\$10,500.00
11	3/4" Polyethylene Service Tubing		470	LF	\$10.00	\$4,700.00	\$4,700.00
12	Cut, Plug & Block Existing Watermain to Be Abandoned		1	EA	\$250.00	\$250.00	\$250.00
13	Tie-in To Existing 4" Waterline		1	EA	\$400.00	\$400.00	\$400.00
14	Tie-in To Existing 6" Waterline		1	EA	\$500.00	\$500.00	\$500.00
15	Trench Width Bituminous Paving		2272	LF	\$30.00	\$68,160.00	\$68,160.00
16	Trench Width Concrete Drive Repair		24	LF	\$50.00	\$1,200.00	\$1,200.00
17	Trench Width Gravel Drive Repair		830	LF	\$10.00	\$8,300.00	\$8,300.00
18	Crushed Stone Backfill of Streets & Drives		3126	LF	\$30.00	\$93,780.00	\$93,780.00
19	Search & Extra Depth Excavation, On Order of Engineer		5	CY	\$25.00	\$125.00	\$125.00
20	Extra for Rip-Rap Stone, On Order of the Engineer		10	Ton	\$25.00	\$250.00	\$250.00
21	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer		10	Ton	\$25.00	\$250.00	\$250.00
							\$593,070.00



Lexington, KY | 859.278.5412
 Hopkinsville, KY | 270.886.5466
 Somerset, KY | 606.485.4011

OPINION OF PROBABLE PROJECT COST

Project: Lakeside Area Wter Line Replacements

Client: Barkley Lake Water District

No Design Completed

Date: May 2024

Contract No.: 586-012

Preliminary

Est. By: RLP

Checked By: RLP

Final Design

SHEET:

OF:

Drawing No.:

Appendix B:

Road List

ROAD LIST

DIVISION A

SOLOMAN DRIVE
GOOSE HOLLOW ROAD
GRAYS HILLVIEW DRIVE
GRAYS HILLTOP DRIVE
HILLSIDE CIRCLE

DIVISION B

BLUESPRINGS BOULEVARD
VALLEY DRIVE
SUNRISE DRIVE
SHADY LANE
EAST SHADY LANE
SUNRISE DRIVE
WEST PARK PLACE
EAST PARK PLACE

DIVISION C

SHAWNEE TRAIL
CHEROKEE DRIVE
SEMINOLE DRIVE
BAYSHORE DRIVE
DAFFODIL DRIVE
HILL STREET

DIVISION D

CAROL DRIVE
NANCY AVENUE
ZALETEL COURT
GOLDENROD DRIVE
OAK COURT
FERRELL CIRCLE
CAPPER LANE
KENTUCKY DRIVE
HAYDEN DRIVE
BLUE RIVER ROAD
SOUTHVIEW DRIVE

DIVISION E

HOLIDAY WAY
CARDINAL CIRCLE
HERON POINT
CANTON-LAKESHORE DRIVE
CENTERVIEW DRIVE
CROSS STREET

DIVISION F

TERRACE LANE
ARROWHEAD TRAIL
FRONTIER AVENUE
BARKLEY TRAIL
PINE LANE
OAK LANE
CEDAR LANE
MAPLE LANE
LITTLEJOHN ROAD

DIVISION G

RIDGE DRIVE
CUMBERLAND DRIVE
CHARLOTTE COVE

DIVISION H

SCENIC DRIVE
HORSESHOE DRIVE
HICKORY DRIVE
BEECHWOOD DRIVE
BLUEBIRD DRIVE
REDBIRD DRIVE
BEAR RUN ROAD
NORTH LAKESHORE DR.
SOUTH LAKESHORE DR.

Exhibit 6
Final Engineering
Report

Final Engineering Report

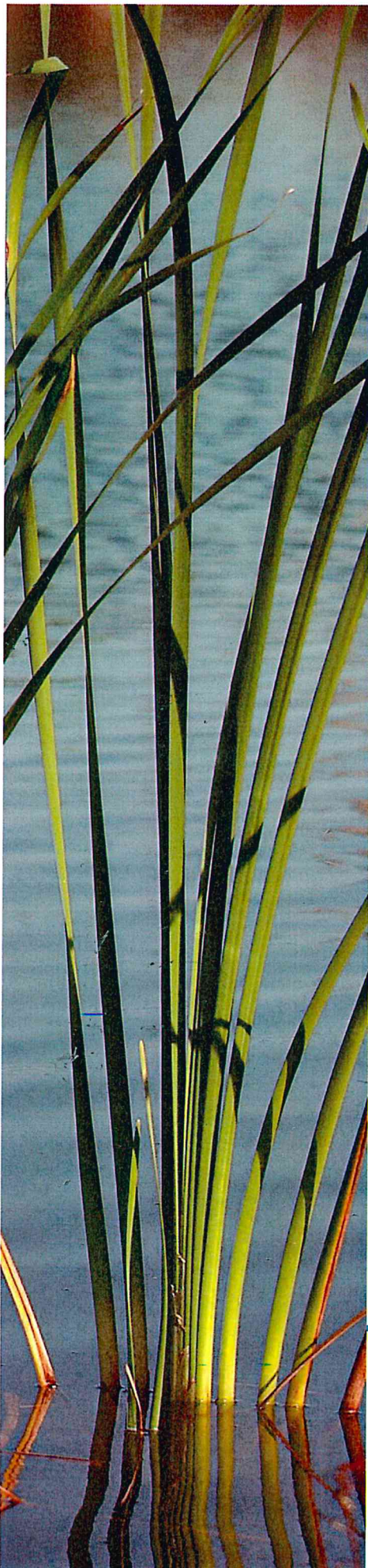
BLWD – Lakeside Waterline Replacement

Barkley Lake Water District
Trigg County, Kentucky

August 2024



STATE OF KENTUCKY
PROFESSIONAL ENGINEER
8/13/24



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Final Engineering Report

Lakeside Water Line Replacement Project

I. Introduction

The Barkley Lake Water District (BLWD) desires to provide more reliable water service to the customers in residential areas east of Lake Barkley. The distribution lines were constructed primarily in 1965 when the system was started and are constructed of asbestos cement (AC) pipe. Although the system was adequate at the time, due to age, it is making it increasingly difficult and costly for the BLWD to operate and maintain the system in a reliable manner. The current system is experiencing breaks and in need of replacement to allow BLWD to continue to supply an adequate, safe, reliable water supply for its customers in this area.

In the project area, existing distribution lines need to be replaced with new lines of the same size as existing. The existing AC lines will be abandoned in place when taken out of service. The area contains much variation in elevation which tends to give some higher-pressure areas which exacerbates the breakage on fragile lines.

The proposed improvements should reduce the number of service interruptions through replacement of the deteriorated piping. The safety of the system workers would also be a consideration since repairs on these AC lines can cause asbestos exposure.

II. Planning Area

The area of focus is residential subdivisions on the east side of Lake Barkley which is the west side of the BLWD service area. It includes all or part of 58 roads in eight (8) subdivision areas. These were some of the earliest water lines in the system. The areas and road listing are shown in attached Map 1 and Appendix B.

III. Existing Facilities

The Barkley Lake Water District owns and maintains all water services in their service area and produces water in their own 4 million gallon per day water plant. Based upon the information provided by the Water Resource Information System (WRIS) Asset Inventory, the Barkley Lake Water District distribution system is comprised of approximately 2,621,902 total feet of distribution lines six (6) pressure zones and nine (9) water storage tanks listed as follows:

PVC PIPE

Size	Feet
2"	149,678
3"	40,976
4"	264,141
6"	156,241
8"	67,854
10"	871
12"	19,282
16"	4,845
TOTAL	560,354

ASBESTOS CEMENT PIPE

Size	Feet
2"	149,678
3"	517,939
4"	752,661
6"	442,417
8"	138,372
10"	24
12"	22,711
14"	9,742
16"	9,269
TOTAL	2,042,813

DUCTILE IRON PIPE

Size	Feet
12"	1,250
16"	17,485
TOTAL	18,735

WATER STORAGE TANKS

Name:	Capacity (Gal.):
Cerulean Tank	150,000
Cerulean Tank	300,000
Pete Light Tank	200,000
Pete Light Tank #2	1,000,000
Rogers Tank	450,000
Siloam Tank	300,000
South Road 1	50,000
South Road 2	300,000
Water Plant	500,000
Total Storage	3,250,000

Additional components in the system includes five (5) pumping stations.

According to the Kentucky Infrastructure Authority’s “Drinking Water System Information” page, The Barkley Lake Water District operational statistics are as follows:

Total Annual Volume Produced (MG):	514.008	
Total Annual Volume Purchased (MG):	0	
Total Annual Volume Provided (MG):	514.008	
Estimated Annual Water Loss:	11%	
Wholesale Customers:	4	Usage (MG): 108.705
Residential Customers:	5,669	Usage (MG): 241.175
Commercial Customers:	68	Usage (MG): 8.590
Institutional	17	Usage (MG): 97.791
Industrial Customers:	6	Usage (MG): 0.368
Other	1	Usage (MG): 1.728
Total Customers:	5,765	
Flushing, Maintenance and Fire Protection Usage (MG):		0.645
Total Water Usage (MG):		459.002

The distribution system was constructed was started in 1965. As noted in the pipe inventory the system contains a large quantity of AC pipe.

The Barkley Lake Water District system is currently in compliance with all Federal and State Regulations regarding the sanitary features of the distribution system

IV. Need for the Project

In the proposed project areas, all of the existing water distribution lines are AC lines installed in the 1960s. The terrain in the area has much relief since it drops down to Lake Barkley. This terrain caused increased operational pressures due to static head for the elevation. The increased pressures make breaks of deteriorated piping more prevalent. Repairs on AC pipe is a safety hazard to system employees.

V. Alternatives

BLWD - Lakeside Waterline Replacement

Alternative 1: Replace the AC piping with PVC piping.

Alternative 2: Replace the AC piping with ductile iron piping.

Alternative 3: Leave system the way it is.

VI. Proposed Project

BLWD - Lakeside Waterline Replacement

The project will replace approximately 98,865 linear feet of three (3), four (4) and six (6) inch Asbestos Cement (AC) water line. The water lines were installed in when the water district was created in 1965. The lines have deteriorated and have created numerous leaks and can be a health hazard to personnel working on them.

VII. Environmental Impacts

All of the line construction is replacing the existing asbestos cement water mains, and the new lines will be laid adjacent to the existing lines.

VIII. Land Requirements

The project will be constructed on property on which the BLWD already holds easements, and/or State and County Roadway Right-of Ways.

IX. Construction Problems

Construction will take place in primarily established residential subdivisions. Proper property protection and surface restoration will be of the utmost importance.

X. Hydraulic Calculations

A KYPIPE 2010 model will be developed from system schematics and discussions with system operators. Demand data is being developed from meter books and their associated routes. Tank overflow elevations will be provided by BLWD. The results of the hydraulic analysis will available on request.

XI. Opinions of Probable Project Costs

Opinion of Probable Construction Costs

Opinions of probable construction costs are provided in the Table 1 below.

A detailed opinion of probable construction costs is listed in Appendix B.

Table 1

Item	Description	Size	Quantity (ft)	Total Cost
1	Division A	3,4,6-inch	10,967	\$440,694.25
2	Division B	4,6-inch	12,660	\$483,472.00
3	Division C	4-inch	11,575	\$331,201.25
4	Division D	3,4-inch	14,364	\$452,156.00
5	Division E	4-inch	10,708	\$311,832.00
6	Division F	4-inch	11,263	\$360,893.25
7	Division G	4,6-inch	11,675	\$388,281.00
8	Division H	4,6-inch	15,653	\$593,070.00
Preliminary Opinion of Probable Construction Costs				\$3,361,599.75

Opinion of Probable Projects Costs

Opinions of probable project costs are provided in the Table 2 below.

Table 2

Lakeside Waterline Replacement		
Opinion of Probable Project Costs		
Total Project		
Administration		\$50,00
Engineering Fees-Planning, Design, Bidding and Construction		\$302,305
Engineering Fees-Inspection		\$119,680
Construction ¹		\$3,361,179
Contingencies		\$298,453
Total		\$4,055,093

XII. Annual Operating Budget

The annual operating budget will be made available on request.

¹Budget revised in May 2024 for final design quantities is \$3,361,599.75

XIII. Conclusion and Recommendations

The distribution system upgrades outlined in this report will substantially increase the reliability of the BLWD system and provide for a safer environment for maintenance. Raw material prices were compared for ductile iron (DI) pipe versus PVC pipe. The smaller diameter DI pipe is significantly more expensive than the PVC and the gap closed as the size increased. Based upon the mix of sizes the material only increase to use DI pipe would be \$3,495,530 higher plus the typically higher installation costs. Therefore, the recommendation would be to replace the AC distribution lines with the same size of PVC piping.

XIV. Project Bidding

The project was bid on July 2, 2024 at the Barkley Lake Water District office. There were seven (7) plan holders and three (3) bids were received. A certified bid tabulation is included in Appendix C. Based upon the funding criteria, an announcement was made at the beginning of the bid opening that stated the base funding available for construction was \$3,361,190.00. The bids would be opened and the total from each bidder would be read to determine the low bidder at that time. If the low bid was not within the funds available, the bid amounts for each division would be removed in reverse alphabetical order, bids retabulated and the low bidder named until the low bidder came within funds available. That would establish the apparently low bidder for the project. The owner would have the right to add back divisions in the same order as deleted in their entirety if additional funds are available but it would not alter the low bidder named. All bids would be taken back to the office to be analyzed and checked for math errors prior to release of the bid tabulations. At the bid opening it was announced that Norris Brothers Excavating of Crossville, TN was the apparent low bidder. In the review process some math errors were found in both the bid of Youngblood Excavating and Norris Brothers Excavating. After error correction, the same contractor remained low from the

beginning of the process until the naming of the apparent low bid. The contractor, Youngblood Excavating of Mayfield, Kentucky, became the low after the removal of divisions H through D. In Appendix D is a spreadsheet to analyze the bids and removal process to determine low.

XV. Project Funding and Budget

The project had funding at bid time of \$4,582,169. The funding breakdown was as follows:

Project Funding		
Funds at Bid Time		
21CWW205		\$376,651
22CWW357		\$427,065
Fund F Loan		\$3,678,453
Local Funds		\$100,000
Total		\$4,582,169

After the bid, a request was made for additional Cleaner Water grant funding. An additional \$686,695 supplemental increase was awarded to grant 22CWW357. The funding breakdown is now as follows:

Project Funding		
Funds after Supplement Grant		
21CWW205		\$376,651
22CWW357		\$1,113,760
Fund F Loan		\$3,678,453
Local Funds		\$315,778
Total		\$5,484,642

The district will award divisions A thru E and the project budget breakdown is now as follows:

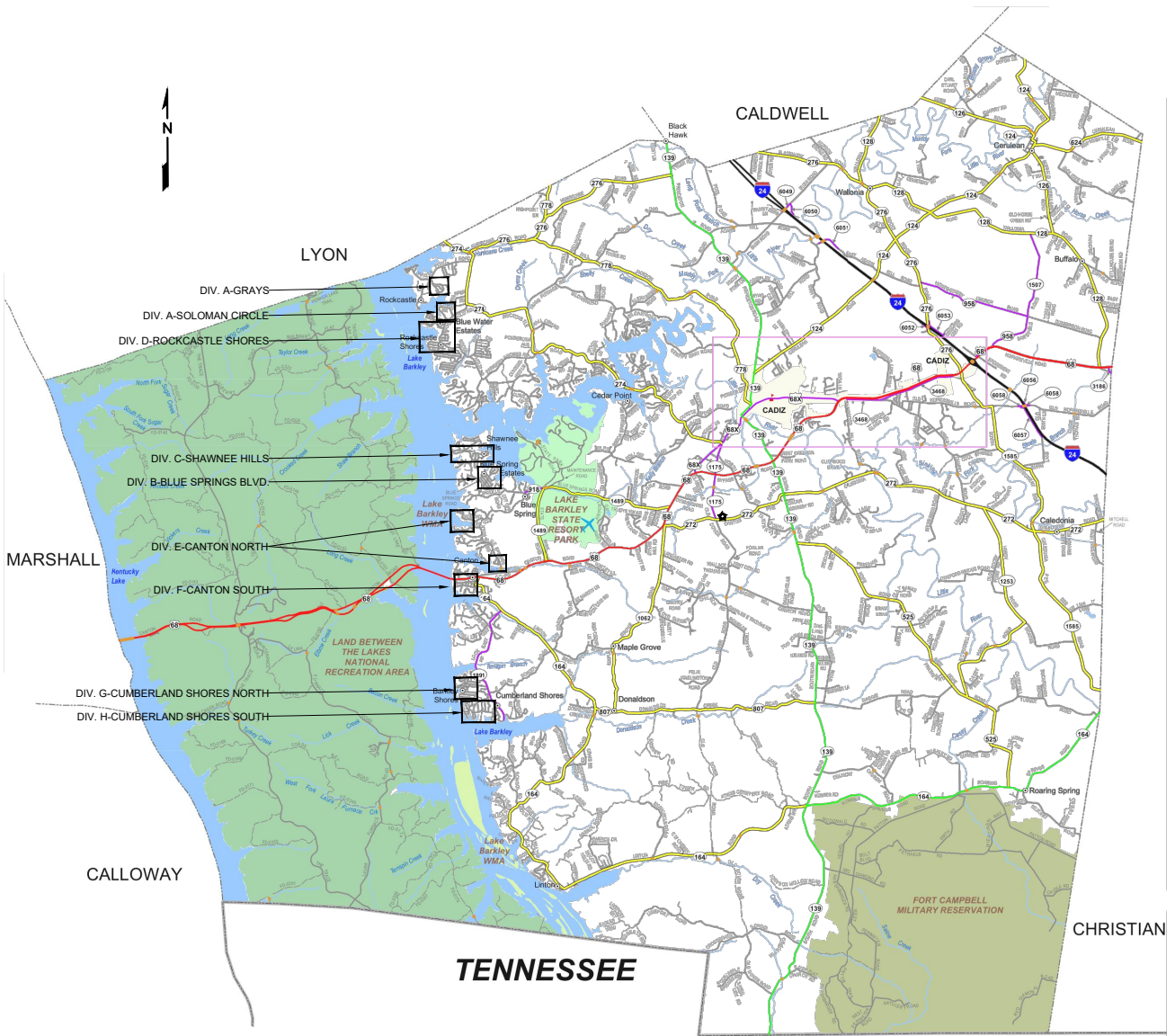
Project Budget		
\$5,484,642 Funding		
Planning		\$10,000
Engineering - Design		\$151,047
Engineering - Construction		\$43,156
Engineering - Inspection		\$119,680
Engineering - Other		\$21,578
Construction		\$5,089,181
Contingency		\$50,000

If additional grant funding becomes available the district has made a contingency award of division F. The base award and this additional award would not cause a rate increase.

Map #1:

Lakeside Waterline Replacement Project Area

LAKESIDE AREA WATER LINE REPLACEMENT



TRIGG COUNTY
VICINITY MAP
NOT TO SCALE

Appendix A:

Detailed Opinion of Probable Construction and Project Cost

Prebid OPCC and Budget

ITEM NO.		ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST
			NO.	UNIT	PER UNIT	TOTAL	
Div A							
1	6" SDR 17 PVC	4180	LF	\$25.50	\$106,590.00	\$106,590.00	
2	4" SDR 17 PVC	6187	LF	\$17.75	\$109,819.25	\$109,819.25	
3	3" SDR 17 PVC	600	LF	\$12.75	\$7,650.00	\$7,650.00	
4	6" DIMJ Gate Valve	4	EA	\$1,250.00	\$5,000.00	\$5,000.00	
5	4" DIMJ Gate Valve	7	EA	\$1,000.00	\$7,000.00	\$7,000.00	
6	3" DIMJ Gate Valve	4	EA	\$800.00	\$3,200.00	\$3,200.00	
7	Flush Hydrant Assembly	6	EA	\$2,500.00	\$15,000.00	\$15,000.00	
8	6" Tapping Sleeve & Valve	5	EA	\$4,500.00	\$22,500.00	\$22,500.00	
9	4" Tapping Sleeve & Valve	1	EA	\$3,500.00	\$3,500.00	\$3,500.00	
10	Locate & Reconnect Existing Water Service	71	EA	\$350.00	\$24,850.00	\$24,850.00	
11	3/4" Corp Stop & Saddle for 6" PVC Pipe	19	EA	\$150.00	\$2,850.00	\$2,850.00	
12	3/4" Corp Stop & Saddle for 4" PVC Pipe	49	EA	\$100.00	\$4,900.00	\$4,900.00	
13	3/4" Corp Stop & Saddle for 3" PVC Pipe	3	EA	\$75.00	\$225.00	\$225.00	
14	3/4" Polyethylene Service Tubing	340	LF	\$10.00	\$3,400.00	\$3,400.00	
15	Cut, Plug & Block Existing Watermain to Remain in Service	4	EA	\$500.00	\$2,000.00	\$2,000.00	
16	Cut, Plug & Block Existing Watermain to Be Abandoned	4	EA	\$250.00	\$1,000.00	\$1,000.00	
17	Tie-in To Existing 3" Waterline	1	EA	\$300.00	\$300.00	\$300.00	
18	Tie-in To Existing 4" Waterline	1	EA	\$400.00	\$400.00	\$400.00	
19	Tie-in To Existing 6" Waterline	1	EA	\$500.00	\$500.00	\$500.00	
20	Trench Width Bituminous Paving	1759	LF	\$30.00	\$52,770.00	\$52,770.00	
21	Trench Width Concrete Drive Repair	40	LF	\$50.00	\$2,000.00	\$2,000.00	
22	Trench Width Gravel Drive Repair	263	LF	\$10.00	\$2,630.00	\$2,630.00	
23	Crushed Stone Backfill of Streets & Drives	2062	LF	\$30.00	\$61,860.00	\$61,860.00	
24	Search & Extra Depth Excavation, On Order of Engineer	10	CY	\$25.00	\$250.00	\$250.00	
25	Extra for Rip-Rap Stone, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
26	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
						\$440,694.25	



Lexington, KY | 859.278.5412
 Hopkinsville, KY | 270.886.5466
 Somerset, KY | 606.485.4011

OPINION OF PROBABLE PROJECT COST

Project: Lakeside Area Water Line Replacements
Date: May 2024
Est. By: RLP

Client: Barkley Lake Water District
Contract No.: 586-012
Checked By: RLP

- No Design Completed
- Preliminary
- Final Design

SHEET: _____ **OF:** _____ **Drawing No.:** _____

ITEM NO.		ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST
			NO.	UNIT	PER UNIT	TOTAL	
Div B							
1	6" SDR 17 PVC		1928	LF	\$25.50	\$49,164.00	\$49,164.00
2	4" SDR 17 PVC		10732	LF	\$17.75	\$190,493.00	\$190,493.00
3	4" DIMJ Gate Valve		12	EA	\$1,000.00	\$12,000.00	\$12,000.00
4	Flush Hydrant Assembly		8	EA	\$2,500.00	\$20,000.00	\$20,000.00
5	6" Tapping Sleeve & Valve		1	EA	\$4,500.00	\$4,500.00	\$4,500.00
6	Locate & Reconnect Exist. Water Service		134	EA	\$350.00	\$46,900.00	\$46,900.00
7	3/4" Corp Stop & Saddle for 6" PVC Pipe		13	EA	\$150.00	\$1,950.00	\$1,950.00
8	3/4" Corp Stop & Saddle for 4" PVC Pipe		121	EA	\$100.00	\$12,100.00	\$12,100.00
9	3/4" Polyethylene Service Tubing		635	LF	\$10.00	\$6,350.00	\$6,350.00
10	Cut, Plug & Block Existing Watermain to Be Abandoned		8	EA	\$250.00	\$2,000.00	\$2,000.00
11	Tie-in To Existing 4" Waterline		9	EA	\$400.00	\$3,600.00	\$3,600.00
12	Trench Width Bituminous Paving		2119	LF	\$30.00	\$63,570.00	\$63,570.00
13	Trench Width Concrete Drive Repair		80	LF	\$50.00	\$4,000.00	\$4,000.00
14	Crushed Stone Backfill of Streets & Drives		2199	LF	\$30.00	\$65,970.00	\$65,970.00
15	Search & Extra Depth Excavation, On Order of Engineer		5	CY	\$25.00	\$125.00	\$125.00
16	Extra for Rip-Rap Stone, On Order of the Engineer		10	Ton	\$25.00	\$250.00	\$250.00
17	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer		20	Ton	\$25.00	\$500.00	\$500.00
							\$483,472.00



Lexington, KY | 859.278.5412
 Hopkinsville, KY | 270.886.5466
 Somerset, KY | 606.485.4011

OPINION OF PROBABLE PROJECT COST

Project: Lakeside Area water Line Replacements

Client: Barkley Lake Water District

No Design Completed

Date: May 2024

Contract No.: 586-012

Preliminary

Est. By: RLP


Checked By: RLP

Final Design

SHEET:

OF:

Drawing No.:

 <p>Lexington, KY 859.278.5412 Hopkinsville, KY 270.886.5466 Somerset, KY 606.485.4011</p>		OPINION OF PROBABLE PROJECT COST					
		Project: Lakeside Area Water Line Replacements Date: May 2024 Est. By: RLP			Client: Barkley Lake Water District Contract No.: 586-012 Checked By: RLP		<input type="checkbox"/> No Design Completed <input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final Design
		SHEET:		OF:		Drawing No.:	
ITEM NO.	ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST	
		NO.	UNIT	PER UNIT	TOTAL		
Div C							
1	4" SDR 17 PVC	11575	LF	\$17.75	\$205,456.25	\$205,456.25	
2	4" DIMJ Gate Valve	12	EA	\$1,000.00	\$12,000.00	\$12,000.00	
3	Flush Hydrant Assembly	3	EA	\$2,500.00	\$7,500.00	\$7,500.00	
4	6" Tapping Sleeve & Valve	2	EA	\$4,500.00	\$9,000.00	\$9,000.00	
5	4" Tapping Sleeve & Valve	1	EA	\$3,500.00	\$3,500.00	\$3,500.00	
6	Locate & Reconnect Exist. Water Service	49	EA	\$350.00	\$17,150.00	\$17,150.00	
7	3/4" Corp Stop & Saddle for 4" PVC Pipe	49	EA	\$100.00	\$4,900.00	\$4,900.00	
8	3/4" Polyethylene Service Tubing	245	LF	\$10.00	\$2,450.00	\$2,450.00	
9	Cut, Plug & Block Existing Watermain to Remain in Service	2	EA	\$500.00	\$1,000.00	\$1,000.00	
10	Cut, Plug & Block Existing Watermain to Be Abandoned	5	EA	\$250.00	\$1,250.00	\$1,250.00	
11	Tie-in To Existing 2" Watermain	1	EA	\$250.00	\$250.00	\$250.00	
12	Tie-in To Existing 4" Watermain	6	EA	\$350.00	\$2,100.00	\$2,100.00	
13	Trench Width Bituminous Paving	1027	LF	\$30.00	\$30,810.00	\$30,810.00	
14	Trench Width Concrete Drive Repair	20	LF	\$50.00	\$1,000.00	\$1,000.00	
15	Trench Width Gravel Drive Repair	20	LF	\$10.00	\$200.00	\$200.00	
16	Crushed Stone Backfill of Streets & Drives	1067	LF	\$30.00	\$32,010.00	\$32,010.00	
17	Search & Extra Depth Excavation, On Order of Engineer	5	CY	\$25.00	\$125.00	\$125.00	
18	Extra for Rip-Rap Stone, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
19	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
						\$331,201.25	

ITEM NO.		ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST
			NO.	UNIT	PER UNIT	TOTAL	
Div D							
1	4" SDR 17 PVC		13554	LF	\$17.75	\$240,583.50	\$240,583.50
2	3" SDR 17 PVC		810	LF	\$12.75	\$10,327.50	\$10,327.50
3	4" DIMJ Gate Valve		10	EA	\$1,000.00	\$10,000.00	\$10,000.00
4	3" DIMJ Gate Valve		3	EA	\$800.00	\$2,400.00	\$2,400.00
5	Flush Hydrant Assembly		8	EA	\$2,500.00	\$20,000.00	\$20,000.00
6	6" Tapping Sleeve & Valve		5	EA	\$4,500.00	\$22,500.00	\$22,500.00
7	4" Tapping Sleeve & Valve		1	EA	\$3,500.00	\$3,500.00	\$3,500.00
8	Locate & Reconnect Exist. Water Service		79	EA	\$350.00	\$27,650.00	\$27,650.00
9	3/4" Corp Stop & Saddle for 4" PVC Pipe		78	EA	\$100.00	\$7,800.00	\$7,800.00
10	3/4" Corp Stop & Saddle for 3" PVC Pipe		1	EA	\$100.00	\$100.00	\$100.00
11	3/4" Polyethylene Service Tubing		395	LF	\$10.00	\$3,950.00	\$3,950.00
12	Cut, Plug & Block Existing Watermain to Remain in Service		1	EA	\$500.00	\$500.00	\$500.00
13	Cut, Plug & Block Existing Watermain to Be Abandoned		20	EA	\$250.00	\$5,000.00	\$5,000.00
14	Tie-in To Existing 3" Waterline		1	EA	\$300.00	\$300.00	\$300.00
15	Tie-in To Existing 4" Waterline		5	EA	\$400.00	\$2,000.00	\$2,000.00
16	Trench Width Bituminous Paving		1280	LF	\$30.00	\$38,400.00	\$38,400.00
17	Trench Width Gravel Drive Repair		453	LF	\$10.00	\$4,530.00	\$4,530.00
18	Crushed Stone Backfill of Streets & Drives		1733	LF	\$30.00	\$51,990.00	\$51,990.00
19	Search & Extra Depth Excavation, On Order of Engineer		5	CY	\$25.00	\$125.00	\$125.00
20	Extra for Rip-Rap Stone, On Order of the Engineer		10	Ton	\$25.00	\$250.00	\$250.00
21	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer		10	Ton	\$25.00	\$250.00	\$250.00
							\$452,156.00



Lexington, KY | 859.278.5412
 Hopkinsville, KY | 270.886.5466
 Somerset, KY | 606.485.4011

OPINION OF PROBABLE PROJECT COST

Project: Lakeside Area Water Line Replacements

Client: Barkley Lake Water District

No Design Completed

Date: May 2024

Contract No.: 586-012

Preliminary

Est. By: RLP

Checked By: RLP

Final Design

SHEET:

OF:

Drawing No.:

ITEM NO.		ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST
			NO.	UNIT	PER UNIT	TOTAL	
Div E							
1		4" SDR 17 PVC	10708	LF	\$17.75	\$190,067.00	\$190,067.00
2		4" DIMJ Gate Valve	11	EA	\$1,000.00	\$11,000.00	\$11,000.00
3		Flush Hydrant Assembly	3	EA	\$2,500.00	\$7,500.00	\$7,500.00
4		6" Tapping Sleeve & Valve	1	EA	\$4,500.00	\$4,500.00	\$4,500.00
5		4" Tapping Sleeve & Valve	1	EA	\$3,500.00	\$3,500.00	\$3,500.00
6		Locate & Reconnect Exist. Water Service	67	EA	\$350.00	\$23,450.00	\$23,450.00
7		3/4" Corp Stop & Saddle for 4" PVC Pipe	67	EA	\$100.00	\$6,700.00	\$6,700.00
8		3/4" Polyethylene Service Tubing	335	LF	\$10.00	\$3,350.00	\$3,350.00
9		Cut, Plug & Block Existing Watermain to Remain in Service	2	EA	\$500.00	\$1,000.00	\$1,000.00
10		Cut, Plug & Block Existing Watermain to Be Abandoned	1	EA	\$250.00	\$250.00	\$250.00
11		Tie-in To Existing 2" Waterline	1	EA	\$250.00	\$250.00	\$250.00
12		Tie-in To Existing 4" Waterline	2	EA	\$400.00	\$800.00	\$800.00
13		Trench Width Bituminous Paving	964	LF	\$30.00	\$28,920.00	\$28,920.00
14		Trench Width Gravel Drive Repair	25	LF	\$10.00	\$250.00	\$250.00
15		Crushed Stone Backfill of Streets & Drives	989	LF	\$30.00	\$29,670.00	\$29,670.00
16		Search & Extra Depth Excavation, On Order of Engineer	5	CY	\$25.00	\$125.00	\$125.00
17		Extra for Rip-Rap Stone, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00
18		Extra for Cr. Stone Trench Stabilization, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00
							\$311,832.00



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OPINION OF PROBABLE PROJECT COST

Project: Lakeside Area Water Line Replacements

Client: Barkley Lake Water District

No Design Completed

Date: May 2024

Contract No.: 586-012

Preliminary

Est. By: RLP


Checked By: RLP

Final Design

SHEET:

OF:

Drawing No.:

 <p>Lexington, KY 859.278.5412 Hopkinsville, KY 270.886.5466 Somerset, KY 606.485.4011</p>		OPINION OF PROBABLE PROJECT COST					
		Project: Rockcastle Area Water Improvements Date: May 2024 Est. By: RLP		Client: Barkley Lake Water District Contract No.: 586-012 Checked By: RLP		<input type="checkbox"/> No Design Completed <input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final Design	
		SHEET:		OF:		Drawing No.:	
ITEM NO.	ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST	
		NO.	UNIT	PER UNIT	TOTAL		
Div F							
1	4" SDR 17 PVC	11263	LF	\$17.75	\$199,918.25	\$199,918.25	
2	4" DIMJ Gate Valve	19	EA	\$1,000.00	\$19,000.00	\$19,000.00	
3	2" DIMJ Gate Valve	1	EA	\$750.00	\$750.00	\$750.00	
4	Flush Hydrant Assembly	3	EA	\$2,500.00	\$7,500.00	\$7,500.00	
5	8" Tapping Sleeve & Valve	1	EA	\$5,500.00	\$5,500.00	\$5,500.00	
6	Locate & Reconnect Exist. Water Service	64	EA	\$350.00	\$22,400.00	\$22,400.00	
7	3/4" Corp Stop & Saddle for 4" PVC Pipe	64	EA	\$100.00	\$6,400.00	\$6,400.00	
8	3/4" Polyethylene Service Tubing	320	LF	\$10.00	\$3,200.00	\$3,200.00	
9	Cut, Plug & Block Existing Watermain to Remain in Service	1	EA	\$500.00	\$500.00	\$500.00	
10	Cut, Plug & Block Existing Watermain to Be Abandoned	20	EA	\$250.00	\$5,000.00	\$5,000.00	
11	Tie-in To Existing 4" Waterline	13	EA	\$400.00	\$5,200.00	\$5,200.00	
12	Trench Width Bituminous Paving	1335	LF	\$30.00	\$40,050.00	\$40,050.00	
13	Trench Width Gravel Drive Repair	120	LF	\$10.00	\$1,200.00	\$1,200.00	
14	Crushed Stone Backfill of Streets & Drives	1455	LF	\$30.00	\$43,650.00	\$43,650.00	
15	Search & Extra Depth Excavation, On Order of Engineer	5	CY	\$25.00	\$125.00	\$125.00	
16	Extra for Rip-Rap Stone, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
17	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
						\$360,893.25	

ITEM NO.		ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST
			NO.	UNIT	PER UNIT	TOTAL	
Div G							
1	6" SDR 17 PVC		5389	LF	\$25.50	\$137,419.50	\$137,419.50
2	4" SDR 17 PVC		6286	LF	\$17.75	\$111,576.50	\$111,576.50
3	6" DIMJ Gate Valve		3	EA	\$1,250.00	\$3,750.00	\$3,750.00
4	4" DIMJ Gate Valve		11	EA	\$1,000.00	\$11,000.00	\$11,000.00
5	3" DIMJ Gate Valve		1	EA	\$800.00	\$800.00	\$800.00
6	Flush Hydrant Assembly		2	EA	\$2,500.00	\$5,000.00	\$5,000.00
7	6" Tapping Sleeve & Valve		3	EA	\$4,500.00	\$13,500.00	\$13,500.00
8	4" Tapping Sleeve & Valve		1	EA	\$3,500.00	\$3,500.00	\$3,500.00
9	Locate & Reconnect Exist. Water Service		45	EA	\$350.00	\$15,750.00	\$15,750.00
10	3/4" Corp Stop & Saddle for 6" PVC Pipe		14	EA	\$150.00	\$2,100.00	\$2,100.00
11	3/4" Corp Stop & Saddle for 4" PVC Pipe		31	EA	\$100.00	\$3,100.00	\$3,100.00
12	3/4" Polyethylene Service Tubing		225	LF	\$10.00	\$2,250.00	\$2,250.00
13	Cut, Plug & Block Existing Watermain to Remain in Service		1	EA	\$500.00	\$500.00	\$500.00
14	Cut, Plug & Block Existing Watermain to Be Abandoned		11	EA	\$250.00	\$2,750.00	\$2,750.00
15	Tie-in To Existing 3" Watermain		1	EA	\$300.00	\$300.00	\$300.00
16	Tie-in To Existing 4" Watermain		9	EA	\$400.00	\$3,600.00	\$3,600.00
17	Tie-in To Existing 6" Watermain		1	EA	\$500.00	\$500.00	\$500.00
18	Trench Width Bituminous Paving		899	LF	\$30.00	\$26,970.00	\$26,970.00
19	Trench Width Concrete Drive Repair		24	LF	\$50.00	\$1,200.00	\$1,200.00
20	Trench Width Gravel Drive Repair		360	LF	\$10.00	\$3,600.00	\$3,600.00
21	Crushed Stone Backfill of Streets & Drives		1283	LF	\$30.00	\$38,490.00	\$38,490.00
22	Search & Extra Depth Excavation, On Order of Engineer		5	CY	\$25.00	\$125.00	\$125.00
23	Extra for Rip-Rap Stone, On Order of the Engineer		10	Ton	\$25.00	\$250.00	\$250.00
24	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer		10	Ton	\$25.00	\$250.00	\$250.00
							\$388,281.00



Lexington, KY | 859.278.5412
 Hopkinsville, KY | 270.886.5466
 Somerset, KY | 606.485.4011

OPINION OF PROBABLE PROJECT COST

Project: Lakeside Area Water Line Replacements

Client: Barkley Lake Water District

No Design Completed

Date: May 2024

Contract No.: 586-012

Preliminary

Est. By: RLP

Checked By: RLP

Final Design

SHEET:

OF:

Drawing No.:

ITEM NO.		ITEM DESCRIPTION	QUANTITY		PRICE		TOTAL COST
			NO.	UNIT	PER UNIT	TOTAL	
Div H							
1	6" SDR 17 PVC	647	LF	\$25.50	\$16,498.50	\$16,498.50	
2	4" SDR 17 PVC	15006	LF	\$17.75	\$266,356.50	\$266,356.50	
3	6" DIMJ Gate Valve	6	EA	\$1,250.00	\$7,500.00	\$7,500.00	
4	4" DIMJ Gate Valve	1	EA	\$1,000.00	\$1,000.00	\$1,000.00	
5	Flush Hydrant Assembly	9	EA	\$2,500.00	\$22,500.00	\$22,500.00	
6	6" Tapping Sleeve & Valve	10	EA	\$4,500.00	\$45,000.00	\$45,000.00	
7	4" Tapping Sleeve & Valve	3	EA	\$3,500.00	\$10,500.00	\$10,500.00	
8	Locate & Reconnect Exist. Water Service	94	EA	\$350.00	\$32,900.00	\$32,900.00	
9	3/4" Corp Stop & Saddle for 4" PVC Pipe	24	EA	\$100.00	\$2,400.00	\$2,400.00	
10	3/4" Corp Stop & Saddle for 6" PVC Pipe	70	EA	\$150.00	\$10,500.00	\$10,500.00	
11	3/4" Polyethylene Service Tubing	470	LF	\$10.00	\$4,700.00	\$4,700.00	
12	Cut, Plug & Block Existing Watermain to Be Abandoned	1	EA	\$250.00	\$250.00	\$250.00	
13	Tie-in To Existing 4" Waterline	1	EA	\$400.00	\$400.00	\$400.00	
14	Tie-in To Existing 6" Waterline	1	EA	\$500.00	\$500.00	\$500.00	
15	Trench Width Bituminous Paving	2272	LF	\$30.00	\$68,160.00	\$68,160.00	
16	Trench Width Concrete Drive Repair	24	LF	\$50.00	\$1,200.00	\$1,200.00	
17	Trench Width Gravel Drive Repair	830	LF	\$10.00	\$8,300.00	\$8,300.00	
18	Crushed Stone Backfill of Streets & Drives	3126	LF	\$30.00	\$93,780.00	\$93,780.00	
19	Search & Extra Depth Excavation, On Order of Engineer	5	CY	\$25.00	\$125.00	\$125.00	
20	Extra for Rip-Rap Stone, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
21	Extra for Cr. Stone Trench Stabilization, On Order of the Engineer	10	Ton	\$25.00	\$250.00	\$250.00	
						\$593,070.00	



Lexington, KY | 859.278.5412
 Hopkinsville, KY | 270.886.5466
 Somerset, KY | 606.485.4011

OPINION OF PROBABLE PROJECT COST

Project: Lakeside Area Wter Line Replacements

Client: Barkley Lake Water District

No Design Completed

Date: May 2024

Contract No.: 586-012

Preliminary

Est. By: RLP

Checked By: RLP

Final Design

SHEET:

OF:

Drawing No.:

Appendix B:

Road List

ROAD LIST

DIVISION A

SOLOMAN DRIVE
GOOSE HOLLOW ROAD
GRAYS HILLVIEW DRIVE
GRAYS HILLTOP DRIVE
HILLSIDE CIRCLE

DIVISION B

BLUESPRINGS BOULEVARD
VALLEY DRIVE
SUNRISE DRIVE
SHADY LANE
EAST SHADY LANE
SUNRISE DRIVE
WEST PARK PLACE
EAST PARK PLACE

DIVISION C

SHAWNEE TRAIL
CHEROKEE DRIVE
SEMINOLE DRIVE
BAYSHORE DRIVE
DAFFODIL DRIVE
HILL STREET

DIVISION D

CAROL DRIVE
NANCY AVENUE
ZALETEL COURT
GOLDENROD DRIVE
OAK COURT
FERRELL CIRCLE
CAPPER LANE
KENTUCKY DRIVE
HAYDEN DRIVE
BLUE RIVER ROAD
SOUTHVIEW DRIVE

DIVISION E

HOLIDAY WAY
CARDINAL CIRCLE
HERON POINT
CANTON-LAKESHORE DRIVE
CENTERVIEW DRIVE
CROSS STREET

DIVISION F

TERRACE LANE
ARROWHEAD TRAIL
FRONTIER AVENUE
BARKLEY TRAIL
PINE LANE
OAK LANE
CEDAR LANE
MAPLE LANE
LITTLEJOHN ROAD

DIVISION G

RIDGE DRIVE
CUMBERLAND DRIVE
CHARLOTTE COVE

DIVISION H

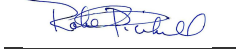
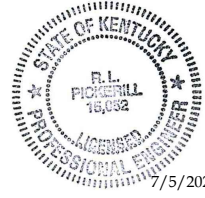
SCENIC DRIVE
HORSESHOE DRIVE
HICKORY DRIVE
BEECHWOOD DRIVE
BLUEBIRD DRIVE
REDBIRD DRIVE
BEAR RUN ROAD
NORTH LAKESHORE DR.
SOUTH LAKESHORE DR.

Divisions Awarded

Appendix C:
Certified Bid Tabulations

We certify that the following is a true and complete tabulation of all bids received by the Barkley Lake Water District on July 2, 2024, for the titled project.

BELL ENGINEERING

Item No.	Item	Quantity	Unit	Youngblood Excavating and Contracting LLC 111 Pioneer Industrial Drive Mayfield, Kentucky 42066		Twin States Utilities and Excavation Inc. 9440 Old Glasgow Road Mount Hermon, Kentucky 42157		Norris Brothers Excavating LLC 22 Northside Lane Crossville, Tennessee 38571	
				Unit Price	Total	Unit Price	Total	Unit Price	Total
If the Contract is to be awarded, it will be awarded to the lowest responsive, responsible Base Bidder whose evaluation by the OWNER indicates to the OWNER that the award will be in the best interest of the Project. DIVISION A-WATER LINES									
1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	4,180	L.F.	\$91.00	\$380,380.00	\$82.00	\$342,760.00	\$54.00	\$225,720.00
2.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	6,187	L.F.	\$74.00	\$457,838.00	\$73.00	\$451,651.00	\$52.00	\$321,724.00
3.	3-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	600	L.F.	\$72.00	\$43,200.00	\$71.00	\$42,600.00	\$50.00	\$30,000.00
4.	6-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	4	Each	\$2,450.00	\$9,800.00	\$2,464.00	\$9,856.00	\$1,500.00	\$6,000.00
5.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	7	Each	\$2,125.00	\$14,875.00	\$2,024.00	\$14,168.00	\$1,400.00	\$9,800.00
6.	3-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	4	Each	\$2,300.00	\$9,200.00	\$1,819.00	\$7,276.00	\$1,300.00	\$5,200.00
7.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	6	Each	\$4,890.00	\$29,340.00	\$5,456.00	\$32,736.00	\$5,200.00	\$31,200.00
8.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	5	Each	\$4,445.00	\$22,225.00	\$5,614.00	\$28,070.00	\$6,000.00	\$30,000.00
9.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$3,800.00	\$3,800.00	\$5,119.00	\$5,119.00	\$5,500.00	\$5,500.00
10.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	71	Each	\$725.00	\$51,475.00	\$750.00	\$53,250.00	\$1,200.00	\$85,200.00
11.	3/4-Inch Corporation Stop and Saddle for 6-Inch PVC Pipe, Complete	19	Each	\$350.00	\$6,650.00	\$313.00	\$5,947.00	\$1,200.00	\$22,800.00
12.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	49	Each	\$300.00	\$14,700.00	\$291.00	\$14,259.00	\$1,200.00	\$58,800.00
13.	3/4-Inch Corporation Stop and Saddle for 3-Inch PVC Pipe, Complete	3	Each	\$300.00	\$900.00	\$285.00	\$855.00	\$1,200.00	\$3,600.00
14.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	340	L.F.	\$74.00	\$25,160.00	\$15.00	\$5,100.00	\$60.00	\$20,400.00
15.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	4	Each	\$3,900.00	\$15,600.00	\$3,500.00	\$14,000.00	\$4,000.00	\$16,000.00
16.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	4	Each	\$2,400.00	\$9,600.00	\$3,500.00	\$14,000.00	\$4,000.00	\$16,000.00
17.	Tie in to Existing 3-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,300.00	\$6,300.00	\$4,500.00	\$4,500.00	\$5,000.00	\$5,000.00
18.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,450.00	\$6,450.00	\$4,500.00	\$4,500.00	\$4,000.00	\$4,000.00
19.	Tie in to Existing 6-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,550.00	\$6,550.00	\$4,500.00	\$4,500.00	\$6,000.00	\$6,000.00
20.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	1,759	L.F.	\$18.00	\$31,662.00	\$50.00	\$87,950.00	\$55.00	\$96,745.00
21.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	40	L.F.	\$190.00	\$7,600.00	\$50.00	\$2,000.00	\$100.00	\$4,000.00

				Youngblood Excavating and Contracting LLC 111 Pioneer Industrial Drive Mayfield, Kentucky 42066		Twin States Utilities and Excavation Inc. 9440 Old Glasgow Road Mount Hermon, Kentucky 42157		Norris Brothers Excavating LLC 22 Northside Lane Crossville, Tennessee 38571	
Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
22.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	263	L.F.	\$23.00	\$6,049.00	\$3.00	\$789.00	\$20.00	\$5,260.00
23.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	2,062	L.F.	\$17.00	\$35,054.00	\$10.00	\$20,620.00	\$26.00	\$53,612.00
24.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	10	C.Y.	\$28.00	\$280.00	\$50.00	\$500.00	\$40.00	\$400.00
25.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$550.00 *	\$5,500.00	\$40.00	\$400.00	\$45.00	\$450.00
26.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$35.00	\$350.00	\$40.00	\$400.00
SUBTOTAL-DIVISION A					* \$1,200,738.00		\$1,167,756.00		\$1,063,811.00
DIVISION B-WATER LINES									
1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	1,928	L.F.	\$67.00	\$129,176.00	\$82.00	\$158,096.00	\$54.00	\$104,112.00
2.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	10,732	L.F.	\$45.00	\$482,940.00	\$73.00	\$783,436.00	\$52.00	\$558,064.00
3.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	12	Each	\$2,125.00	\$25,500.00	\$2,024.00	\$24,288.00	\$1,400.00	\$16,800.00
4.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	8	Each	\$4,890.00	\$39,120.00	\$5,456.00	\$43,648.00	\$5,200.00	\$41,600.00
5.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$4,445.00	\$4,445.00	\$5,614.00	\$5,614.00	\$6,000.00	\$6,000.00
6.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	134	Each	\$725.00	\$97,150.00	\$750.00	\$100,500.00	\$1,200.00	\$160,800.00
7.	3/4-Inch Corporation Stop and Saddle for 6-Inch PVC Pipe, Complete	13	Each	\$350.00	\$4,550.00	\$313.00	\$4,069.00	\$1,200.00	\$15,600.00
8.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	121	Each	\$300.00	\$36,300.00	\$291.00	\$35,211.00	\$1,200.00	\$145,200.00
9.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	635	L.F.	\$74.00	\$46,990.00	\$15.00	\$9,525.00	\$60.00	\$38,100.00
10.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	8	Each	\$2,400.00	\$19,200.00	\$3,500.00	\$28,000.00	\$4,000.00	\$32,000.00
11.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	9	Each	\$6,450.00	\$58,050.00	\$4,500.00	\$40,500.00	\$4,000.00	\$36,000.00
12.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	2,119	L.F.	\$18.00	\$38,142.00	\$50.00	\$105,950.00	\$55.00	\$116,545.00
13.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	80	L.F.	\$190.00	\$15,200.00	\$50.00	\$4,000.00	\$100.00	\$8,000.00
14.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	2,062	L.F.	\$17.00	\$35,054.00	\$10.00	\$20,620.00	\$26.00	\$53,612.00
15.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$28.00	\$140.00	\$50.00	\$250.00	\$45.00	\$225.00
16.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$40.00	\$400.00	\$45.00	\$450.00
17.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	20	Ton	\$55.00	\$1,100.00	\$35.00	\$700.00	\$40.00	\$800.00
SUBTOTAL-DIVISION B					\$1,033,607.00		\$1,364,807.00		\$1,333,908.00

				Youngblood Excavating and Contracting LLC 111 Pioneer Industrial Drive Mayfield, Kentucky 42066		Twin States Utilities and Excavation Inc. 9440 Old Glasgow Road Mount Hermon, Kentucky 42157		Norris Brothers Excavating LLC 22 Northside Lane Crossville, Tennessee 38571	
Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
DIVISION C-WATER LINES									
1.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	11,575	L.F.	\$45.00	\$520,875.00	\$73.00	\$844,975.00	\$52.00	\$601,900.00
2.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	12	Each	\$2,125.00	\$25,500.00	\$2,024.00	\$24,288.00	\$1,400.00	\$16,800.00
3.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	3	Each	\$4,890.00	\$14,670.00	\$5,456.00	\$16,368.00	\$5,200.00	\$15,600.00
4.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	2	Each	\$4,445.00	\$8,890.00	\$5,614.00	\$11,228.00	\$6,000.00	\$12,000.00
5.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$3,800.00	\$3,800.00	\$5,119.00	\$5,119.00	\$5,500.00	\$5,500.00
6.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	49	Each	\$725.00	\$35,525.00	\$750.00	\$36,750.00	\$4,000.00	\$196,000.00
7.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	49	Each	\$300.00	\$14,700.00	\$291.00	\$14,259.00	\$1,200.00	\$58,800.00
8.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	245	L.F.	\$74.00	\$18,130.00	\$15.00	\$3,675.00	\$1,200.00	\$294,000.00
9.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	2	Each	\$3,900.00	\$7,800.00	\$3,500.00	\$7,000.00	\$4,000.00	\$8,000.00
10.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	5	Each	\$2,400.00	\$12,000.00	\$3,500.00	\$17,500.00	\$4,000.00	\$20,000.00
11.	Tie in to Existing 2-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,000.00	\$6,000.00	\$4,000.00	\$4,000.00	\$4,000.00	\$4,000.00
12.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	6	Each	\$6,450.00	\$38,700.00	\$4,500.00	\$27,000.00	\$4,000.00	\$24,000.00
13.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	1,027	L.F.	\$18.00	\$18,486.00	\$50.00	\$51,350.00	\$55.00	\$56,485.00
14.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	20	L.F.	\$190.00	\$3,800.00	\$50.00	\$1,000.00	\$100.00	\$2,000.00
15.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	20	L.F.	\$23.00	\$460.00	\$3.00	\$60.00	\$20.00	\$400.00
16.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	1,067	L.F.	\$17.00	\$18,139.00	\$10.00	\$10,670.00	\$26.00	\$27,742.00
17.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$28.00	\$140.00	\$50.00	\$250.00	\$40.00	\$200.00
18.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$40.00	\$400.00	\$45.00	\$450.00
19.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$35.00	\$350.00	\$40.00	\$400.00
SUBTOTAL-DIVISION C					\$748,715.00		\$1,076,242.00		\$1,344,277.00
DIVISION D-WATER LINES									
1.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	13,554	L.F.	\$74.00	\$1,002,996.00	\$73.00	\$989,442.00	\$52.00	\$704,808.00
2.	3-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	810	L.F.	\$72.00	\$58,320.00	\$71.00	\$57,510.00	\$50.00	\$40,500.00
3.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	10	Each	\$2,125.00	\$21,250.00	\$2,024.00	\$20,240.00	\$58.00	\$580.00
4.	3-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	3	Each	\$2,300.00	\$6,900.00	\$1,819.00	\$5,457.00	\$1,300.00	\$3,900.00
5.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	8	Each	\$4,890.00	\$39,120.00	\$5,456.00	\$43,648.00	\$5,200.00	\$41,600.00
6.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	5	Each	\$4,445.00	\$22,225.00	\$5,614.00	\$28,070.00	\$6,000.00	\$30,000.00

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Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
7.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$3,800.00	\$3,800.00	\$5,119.00	\$5,119.00	\$4,000.00	\$4,000.00
8.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	79	Each	\$725.00	\$57,275.00	\$750.00	\$59,250.00	\$1,200.00	\$94,800.00
9.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	78	Each	\$300.00	\$23,400.00	\$291.00	\$22,698.00	\$1,200.00	\$93,600.00
10.	3/4-Inch Corporation Stop and Saddle for 3-Inch PVC Pipe, Complete	1	Each	\$300.00	\$300.00	\$285.00	\$285.00	\$1,200.00	\$1,200.00
11.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	395	L.F.	\$74.00	\$29,230.00	\$15.00	\$5,925.00	\$60.00	\$23,700.00
12.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	1	Each	\$3,900.00	\$3,900.00	\$3,500.00	\$3,500.00	\$4,000.00	\$4,000.00
13.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	20	Each	\$2,400.00	\$48,000.00	\$3,500.00	\$70,000.00	\$4,000.00	\$80,000.00
14.	Tie in to Existing 3-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,300.00	\$6,300.00	\$4,500.00	\$4,500.00	\$4,000.00	\$4,000.00
15.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	5	Each	\$6,450.00	\$32,250.00	\$4,500.00	\$22,500.00	\$4,000.00	\$20,000.00
16.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	1,280	L.F.	\$18.00	\$23,040.00	\$50.00	\$64,000.00	\$55.00	\$70,400.00
17.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	453	L.F.	\$23.00	\$10,419.00	\$3.00	\$1,359.00	\$26.00	\$11,778.00
18.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	1,733	L.F.	\$17.00	\$29,461.00	\$10.00	\$17,330.00	\$26.00	\$45,058.00
19.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$28.00	\$140.00	\$50.00	\$250.00	\$45.00	\$225.00
20.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$40.00	\$400.00	\$45.00	\$450.00
21.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$35.00	\$350.00	\$40.00	\$400.00
SUBTOTAL-DIVISION D					* \$1,419,426.00		\$1,421,833.00		\$1,274,999.00
DIVISION E-WATER LINES									
1.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	10,708	L.F.	\$45.00	\$481,860.00	\$73.00	\$781,684.00	\$52.00	\$556,816.00
2.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	11	Each	\$2,125.00	\$23,375.00	\$2,024.00	\$22,264.00	\$1,400.00	\$15,400.00
3.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	3	Each	\$4,890.00	\$14,670.00	\$5,456.00	\$16,368.00	\$5,200.00	\$15,600.00
4.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$4,445.00	\$4,445.00	\$5,614.00	\$5,614.00	\$6,000.00	\$6,000.00
5.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$3,800.00	\$3,800.00	\$5,119.00	\$5,119.00	\$4,000.00	\$4,000.00
6.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	67	Each	\$725.00	\$48,575.00	\$750.00	\$50,250.00	\$1,200.00	\$80,400.00
7.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	67	Each	\$300.00	\$20,100.00	\$291.00	\$19,497.00	\$60.00	\$4,020.00
8.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	335	L.F.	\$74.00	\$24,790.00	\$15.00	\$5,025.00	\$60.00	\$20,100.00
9.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	2	Each	\$3,900.00	\$7,800.00	\$3,500.00	\$7,000.00	\$4,000.00	\$8,000.00
10.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	1	Each	\$2,400.00	\$2,400.00	\$3,500.00	\$3,500.00	\$4,000.00	\$4,000.00
11.	Tie in to Existing 2-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,000.00	\$6,000.00	\$4,000.00	\$4,000.00	\$4,000.00	\$4,000.00
12.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	2	Each	\$6,450.00	\$12,900.00	\$4,500.00	\$9,000.00	\$4,000.00	\$8,000.00

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Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
13.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	964	L.F.	\$18.00	\$17,352.00	\$50.00	\$48,200.00	\$5,500.00 **	\$5,302,000.00
14.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	25	L.F.	\$23.00	\$575.00	\$3.00	\$75.00	\$26.00	\$650.00
15.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	989	L.F.	\$17.00	\$16,813.00	\$10.00	\$9,890.00	\$26.00	\$25,714.00
16.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$28.00	\$140.00	\$50.00	\$250.00	\$45.00	\$225.00
17.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$40.00	\$400.00	\$45.00	\$450.00
18.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$35.00	\$350.00	\$40.00	\$400.00
SUBTOTAL-DIVISION E					\$686,695.00		\$988,486.00		\$6,055,775.00
DIVISION F-WATER LINES									
1.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	11,263	L.F.	\$45.00	\$506,835.00	\$73.00	\$822,199.00	\$52.00	\$585,676.00
2.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	19	Each	\$2,125.00	\$40,375.00	\$2,024.00	\$38,456.00	\$5,600.00	\$106,400.00
3.	2-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	1	Each	\$1,900.00	\$1,900.00	\$1,644.00	\$1,644.00	\$1,200.00	\$1,200.00
4.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	3	Each	\$4,890.00	\$14,670.00	\$5,456.00	\$16,368.00	\$5,200.00	\$15,600.00
5.	8-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$5,550.00	\$5,550.00	\$6,178.00	\$6,178.00	\$8,000.00	\$8,000.00
6.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	64	Each	\$725.00	\$46,400.00	\$750.00	\$48,000.00	\$1,200.00	\$76,800.00
7.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	64	Each	\$300.00	\$19,200.00	\$291.00	\$18,624.00	\$1,200.00	\$76,800.00
8.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	320	L.F.	\$74.00	\$23,680.00	\$15.00	\$4,800.00	\$60.00	\$19,200.00
9.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	1	Each	\$3,900.00	\$3,900.00	\$3,500.00	\$3,500.00	\$4,000.00	\$4,000.00
10.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	20	Each	\$2,400.00	\$48,000.00	\$3,500.00	\$70,000.00	\$4,000.00	\$80,000.00
11.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	13	Each	\$6,450.00	\$83,850.00	\$4,500.00	\$58,500.00	\$4,000.00	\$52,000.00
12.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	1,335	L.F.	\$18.00	\$24,030.00	\$50.00	\$66,750.00	\$55.00	\$73,425.00
13.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	120	L.F.	\$23.00	\$2,760.00	\$3.00	\$360.00	\$26.00	\$3,120.00
14.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	1,455	L.F.	\$17.00	\$24,735.00	\$10.00	\$14,550.00	\$26.00	\$37,830.00
15.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer	5	C.Y.	\$28.00	\$140.00	\$50.00	\$250.00	\$45.00	\$225.00

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Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
16.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$40.00	\$400.00	\$45.00	\$450.00
17.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$35.00	\$350.00	\$40.00	\$400.00
SUBTOTAL-DIVISION F					\$847,125.00		\$1,170,929.00		\$1,141,126.00
DIVISION G-WATER LINES									
1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	5,389	L.F.	\$51.00	\$274,839.00	\$82.00	\$441,898.00	\$55.00	\$296,395.00
2.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	6,286	L.F.	\$42.00	\$264,012.00	\$73.00	\$458,878.00	\$53.00	\$333,158.00
3.	6-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	3	Each	\$2,450.00	\$7,350.00	\$2,464.00	\$7,392.00	\$1,500.00	\$4,500.00
4.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	11	Each	\$2,125.00	\$23,375.00	\$2,024.00	\$22,264.00	\$1,400.00	\$15,400.00
5.	3-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	1	Each	\$2,300.00	\$2,300.00	\$1,819.00	\$1,819.00	\$1,300.00	\$1,300.00
6.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	2	Each	\$4,890.00	\$9,780.00	\$5,456.00	\$10,912.00	\$5,200.00	\$10,400.00
7.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	3	Each	\$4,445.00	\$13,335.00	\$5,614.00	\$16,842.00	\$6,000.00	\$18,000.00
8.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$3,800.00	\$3,800.00	\$5,119.00	\$5,119.00	\$4,000.00	\$4,000.00
9.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	45	Each	\$725.00	\$32,625.00	\$750.00	\$33,750.00	\$4,000.00	\$180,000.00
10.	3/4-Inch Corporation Stop and Saddle for 6-Inch PVC Pipe, Complete	14	Each	\$350.00	\$4,900.00	\$313.00	\$4,382.00	\$1,200.00	\$16,800.00
11.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	31	Each	\$300.00	\$9,300.00	\$291.00	\$9,021.00	\$1,200.00	\$37,200.00
12.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	225	L.F.	\$74.00	\$16,650.00	\$15.00	\$3,375.00	\$60.00	\$13,500.00
13.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	1	Each	\$3,900.00	\$3,900.00	\$3,500.00	\$3,500.00	\$4,000.00	\$4,000.00
14.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	11	Each	\$2,400.00	\$26,400.00	\$3,500.00	\$38,500.00	\$4,000.00	\$44,000.00
15.	Tie in to Existing 3-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,300.00	\$6,300.00	\$4,500.00	\$4,500.00	\$4,000.00	\$4,000.00
16.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	9	Each	\$6,450.00	\$58,050.00	\$4,500.00	\$40,500.00	\$1,400.00	\$12,600.00
17.	Tie in to Existing 6-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,550.00	\$6,550.00	\$4,500.00	\$4,500.00	\$6,000.00	\$6,000.00
18.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	899	L.F.	\$18.00	\$16,182.00	\$50.00	\$44,950.00	\$55.00	\$49,445.00
19.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	24	L.F.	\$190.00	\$4,560.00	\$50.00	\$1,200.00	\$26.00	\$624.00
20.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	360	L.F.	\$23.00 *	\$8,280.00	\$3.00	\$1,080.00	\$26.00	\$9,360.00
21.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	1,283	L.F.	\$17.00	\$21,811.00	\$10.00	\$12,830.00	\$26.00	\$33,358.00
22.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$28.00	\$140.00	\$50.00	\$250.00	\$45.00	\$225.00
23.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$40.00	\$400.00	\$45.00	\$450.00
24.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$35.00	\$350.00	\$40.00	\$400.00
SUBTOTAL-DIVISION G					* \$815,539.00		\$1,168,212.00	*	\$1,095,115.00

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Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
DIVISION H-WATER LINES									
1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	647	L.F.	\$51.00	\$32,997.00	\$82.00	\$53,054.00	\$55.00	\$35,585.00
2.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	15,006	L.F.	\$40.00	\$600,240.00	\$73.00	\$1,095,438.00	\$52.00	\$780,312.00
3.	6-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	1	Each	\$2,450.00	\$2,450.00	\$2,464.00	\$2,464.00	\$1,500.00	\$1,500.00
4.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	6	Each	\$2,125.00	\$12,750.00	\$2,024.00	\$12,144.00	\$1,400.00	\$8,400.00
5.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	9	Each	\$4,890.00	\$44,010.00	\$5,456.00	\$49,104.00	\$5,200.00	\$46,800.00
6.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	10	Each	\$4,445.00	\$44,450.00	\$5,614.00	\$56,140.00	\$6,000.00	\$60,000.00
7.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	3	Each	\$3,800.00	\$11,400.00	\$5,119.00	\$15,357.00	\$4,000.00	\$12,000.00
8.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	94	Each	\$725.00	\$68,150.00	\$750.00	\$70,500.00	\$1,200.00	\$112,800.00
9.	3/4-Inch Corporation Stop and Saddle for 6-Inch PVC Pipe, Complete	24	Each	\$350.00	\$8,400.00	\$313.00	\$7,512.00	\$1,200.00	\$28,800.00
10.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	70	Each	\$300.00	\$21,000.00	\$291.00	\$20,370.00	\$1,200.00	\$84,000.00
11.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	470	L.F.	\$74.00	\$34,780.00	\$15.00	\$7,050.00	\$60.00	\$28,200.00
12.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	1	Each	\$2,400.00	\$2,400.00	\$3,500.00	\$3,500.00	\$4,000.00	\$4,000.00
13.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	3	Each	\$6,450.00	\$19,350.00	\$4,500.00	\$13,500.00	\$4,000.00	\$12,000.00
14.	Tie in to Existing 6-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,550.00	\$6,550.00	\$4,500.00	\$4,500.00	\$4,000.00	\$4,000.00
15.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	2,272	L.F.	\$18.00	\$40,896.00	\$50.00	\$113,600.00	\$55.00	\$124,960.00
16.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	24	L.F.	\$190.00	\$4,560.00	\$50.00	\$1,200.00	\$26.00	\$624.00
17.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	830	L.F.	\$23.00	\$19,090.00	\$3.00	\$2,490.00	\$26.00	\$21,580.00
18.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	3,126	L.F.	\$17.00	\$53,142.00	\$10.00	\$31,260.00	\$26.00	\$81,276.00
19.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$28.00	\$140.00	\$50.00	\$250.00	\$45.00	\$225.00
20.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$40.00	\$400.00	\$45.00	\$450.00
21.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$35.00	\$350.00	\$40.00	\$400.00
SUBTOTAL-DIVISION H					\$1,027,855.00		\$1,560,183.00		\$1,447,912.00

				Youngblood Excavating and Contracting LLC 111 Pioneer Industrial Drive Mayfield, Kentucky 42066		Twin States Utilities and Excavation Inc. 9440 Old Glasgow Road Mount Hermon, Kentucky 42157		Norris Brothers Excavating LLC 22 Northside Lane Crossville, Tennessee 38571	
Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
SUMMARY									
	DIVISION A-WATER LINES				* \$1,200,738.00		\$1,167,756.00		\$1,063,811.00
	DIVISION B-WATER LINES				\$1,033,607.00		\$1,364,807.00		\$1,333,908.00
	DIVISION C-WATER LINES				\$748,715.00		\$1,076,242.00		\$1,344,277.00
	DIVISION D-WATER LINES				\$1,419,426.00		\$1,421,833.00		\$1,274,999.00
	DIVISION E-WATER LINES				\$686,695.00		\$988,486.00		\$6,055,775.00
	DIVISION F-WATER LINES				\$847,125.00		\$1,170,929.00		\$1,141,126.00
	DIVISION G-WATER LINES				* \$815,539.00		\$1,168,212.00	*	\$1,095,115.00
	DIVISION H-WATER LINES				\$1,027,855.00		\$1,560,183.00		\$1,447,912.00
	TOTAL BID CONTRACT 586-24-01				* \$7,779,700.00		\$9,918,448.00	*	\$14,756,923.00
<p>* Corrected math error ** As written by Contractor</p> <p>DETERMINATION OF LOW BID</p> <p>In the comparison of the bids, if there is no acceptable bid within available Project funds, divisions will be deleted in their entirety, beginning with Division H and continuing in reverse alphabetical order until the bid is within project funds. All bids will be recalculated with each deduction and each bidder should be aware that the apparent low bidder may change following each deduction. After determination of successful bidder based on this comparative process and on the responsiveness, responsibilities, and other factors set forth in these instructions, the award may be made to said successful bidder on its base bid, minus any deductions to the base bid price. See Specifications Section C-200, Article 19, for additional information.</p>									

Appendix D:
Bid Evaluation

BID EVALUATION TO DETERMINE LOW BIDDER

	Norris Brothers	Twin States	Youngblood Excavating
Total Contract Bid All Divisions	\$14,756,923.00	\$9,918,448.00	\$7,779,700.00
Division H	\$1,447,912.00	\$1,560,183.00	\$1,027,855.00
New Total	\$13,309,011.00	\$8,358,265.00	\$6,751,845.00
Division G	\$1,095,115.00	\$1,168,212.00	\$815,539.00
New Total	\$12,213,896.00	\$7,190,053.00	\$5,936,306.00
Division F	\$1,141,126.00	\$1,170,929.00	\$847,125.00
New Total	\$11,072,770.00	\$6,019,124.00	\$5,089,181.00
Division E	\$6,055,775.00	\$988,486.00	\$686,695.00
New Total	\$5,016,995.00	\$5,030,638.00	\$4,402,486.00
Division D	\$1,274,999.00	\$1,421,833.00	\$1,419,426.00
New Total	\$3,741,996.00	\$3,608,805.00	\$2,983,060.00
Division C	\$1,344,277.00	\$1,076,242.00	\$748,715.00
New Total	\$2,397,719.00	\$2,532,563.00	\$2,234,345.00
Division B	\$1,333,908.00	\$1,364,807.00	\$1,033,607.00
New Total	\$1,063,811.00	\$1,167,756.00	\$1,200,738.00
Division A			

Construction Funds Available to determine Low Bidder -\$3,361,190

Yellow Highlight Indicates Low Bidder

BID EVALUATION TO DETERMINE LOW BIDDER

	Norris Brothers	Twin States	Youngblood Excavating
Total Contract Bid All Divisions	\$14,756,923.00	\$9,918,448.00	\$7,779,700.00
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Division A			

Construction Funds Available to determine Low Bidder -\$3,361,190

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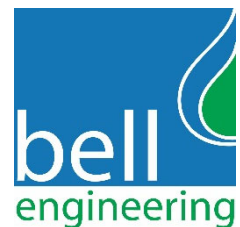
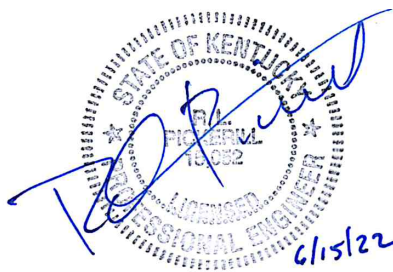
Exhibit 7
Contract
Specifications

SPECIFICATIONS FOR
CONTRACT 586-24-01

LAKESIDE AREA WATER LINE REPLACEMENT

*BARKLEY LAKE WATER DISTRICT
TRIGG COUNTY, KENTUCKY*

January 2024



2480 Fortune Drive,
Suite 350
Lexington, KY 40509
859/278-5412

107 Forbes Drive
Hopkinsville, KY 42240
270/886-5466

205 E. Mt. Vernon Street
Somerset, KY 42501
606/485-4011

INDEX

**CONTRACT 586-24-01
LAKESIDE AREA WATER LINE REPLACEMENT
BARKLEY LAKE WATER DISTRICT
TRIGG COUNTY, KENTUCKY**

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<u>DIVISION 0</u>	<u>GENERAL SPECIFICATIONS, BIDDING REQUIREMENTS, CONTRACT FORMS AND CONDITIONS OF THE CONTRACT</u>	
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C-610	Performance Bond	1 Thru 3
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C-620	Contractor's Application for Payment	1 Thru 5
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586-24-01 (01/2024)

<u>SECTION NO.</u>	<u>TITLE</u>	<u>PAGE NO.</u>
00830	Funding Agency Special Conditions	00830-1
	Supplemental General Conditions for Clean Water State Revolving Fund Drinking Water State Revolving Fund	1 Thru 49
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<u>DIVISIONS 4 THRU 14</u>		
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<u>SECTION NO.</u>	<u>TITLE</u>	<u>PAGE NO.</u>
<u>DIVISION 15</u>	<u>MECHANICAL</u>	
15102	Valves (Water Related)	15102-1 Thru 15102-7
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	Not Applicable	

END

586-24-01 (01/2024)

SECTION 00010

**ADVERTISEMENT FOR BIDS
CONTRACT 586-24-01
LAKESIDE AREA WATER LINE REPLACEMENT
BARKLEY LAKE WATER DISTRICT
TRIGG COUNTY, KENTUCKY**

Sealed proposals for the following work will be received by the Barkley Lake Water District, Trigg County, Kentucky at the Barkley Lake Water District, 1420 Canton Road, Cadiz, Kentucky 42211, until 1:00 p.m., local time, _____, _____, 2024, for furnishing labor and materials and performing all work as set forth by the Advertisement, General Conditions, Specifications and/or Drawings prepared by Bell Engineering. Immediately following the scheduled closing time for the reception of bids, all proposals which have been submitted in accordance with the above conditions will be publicly opened and read aloud. A non-mandatory prebid conference will be held at 10:00 a.m. local time, on _____, _____, 2024, at the office of the Barkley Lake Water District, 1420 Canton Road, Cadiz, Kentucky 42211.

The work to be bid is described as follows:

CONTRACT 586-24-01

Installation of approximately 12,150 linear feet of new 6-inch water lines, 85,300 linear feet of 4-inch water lines, 1,400 linear feet of 3-inch water lines, and appurtenances.

Drawings, Specifications and Contract Documents may be examined at the following places:

Barkley Lake Water District
1420 Canton Road
Cadiz, Kentucky 42211

Bell Engineering
107 Forbes Drive
Hopkinsville, Kentucky 42240

Associated Builders and Contractors of
Kentuckiana, Inc.
1333 Magnolia Street
Bowling Green, Kentucky 42104

Kentucky Cabinet for Economic
Development
Procurement Assistance Program
300 West Broadway Street
Old Capitol Annex
Frankfort, Kentucky 40601
(Advertisement for Bid Only)

or may be obtained from **Lynn Imaging, 328 E. Vine Street, Lexington, Kentucky 40507, phone 859/255-1021**, upon receipt of non-refundable deposit as follows:

CONTRACT 586-24-01--\$200.00

586-24-01 (01/2024)

Sealed proposals for this Contract shall be clearly marked on the outside of the envelope as follows:

“Sealed Proposal for Contract 586-24-01, Lakeside Area Water Line Replacement. Not to be opened until 1:00 p.m., local time, _____, _____, 2024.”

If forwarded by mail, the sealed envelope containing the proposal must be enclosed in another envelope and mailed to the Barkley Lake Water District, 1420 Canton Drive, Cadiz, Kentucky 42211, allowing sufficient time for such mailing to reach this address prior to the scheduled closing time for receipt of proposals.

Bids security shall be furnished in accordance to the Instructions to Bidders.

The attention of all contractors is called to the fact that any contract awarded under this Advertisement for Bids is expected to be funded in part by a loan from the Kentucky Infrastructure Authority (KIA) SRF Loan Program and a Cleaner Water Grant.

The OWNER's share will be provided from current funds on hand and/or from revenue bonds.

Work to be performed by contractors involved in this project is subject to the minimum wage rates established by the U.S. Department of Labor under the provisions of the Davis-Bacon Act and the Kentucky Department of Labor, as set forth in Chapter 337 of the Kentucky Revised Statutes (per amendments adopted by the 1970 General Assembly). Contractors will be required to pay whichever minimum wage rate is higher for the individual crafts.

Bidders must comply with the President's Executive Order Nos. 11246 and 11375, which prohibit discrimination in employment regarding race, creed, color, sex or national origin. Where the President's Executive Order No. 11246 is shown, Executive Order No. 11375 also applies.

Bidders must make positive efforts to secure small or minority owned business enterprise participation in this Project.

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

Bidders must certify that they do not and will not maintain or provide for their employees any facilities that are segregated or based on race, color, creed, or national origin.

Bidders must show a certification of prior work under Executive Order 11246 (Equal Employment Opportunity) as amended.

All contractors and subcontractors must comply with 41 CFR 60-4, in regard to affirmative action. This is to insure equal opportunity to females and minorities, and apply the time tables and goals set forth in 41 CFR 60-4.

586-24-01 (01/2024)

The Barkley Lake Water District may consider informal any bid not prepared and submitted in accordance with the provisions of this advertisement and/or the Specifications and may waive any informalities or reject any and all bids.

BARKLEY LAKE WATER DISTRICT

By _____

Bell Engineering
107 Forbes Drive
Hopkinsville, Kentucky 42240
Phone: 270/886-5466

END OF SECTION

00010-3

INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACTS

Prepared by



Issued and Published Jointly by



Compliant with RUS Kentucky Bulletin 1780-1, issued February 6, 2019.

ARTICLE 1 – DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
- A. *Issuing Office* – The office from which the Bidding Documents are to be issued.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents may be obtained from the Issuing Office in the number and format stated in the advertisement or invitation to bid.
- 2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 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 authorize or confer a license for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

- ~~3.01 To demonstrate Bidder's qualifications to perform the Work, after submitting its Bid and within [] days of Owner's request, Bidder shall submit (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:~~
- ~~A. [Evidence of Bidder's authority to do business in the state where the Project is located.]~~
- ~~B. [Bidder's state or other contractor license number, if applicable.]~~
- ~~C. [Subcontractor and Supplier qualification information; coordinate with provisions of Article 12 of these Instructions, "Subcontractors, Suppliers, and Others."]~~
- ~~D. [Other required information regarding qualifications]~~

{or}

- ~~3.01 Prospective Bidders shall submit required information regarding their qualifications by [] [insert deadline for prequalification submittals]. Owner will review the submitted information to determine which contractors are qualified to bid on the Work. Owner will issue an Addendum listing those contractors that Owner has determined to be qualified to construct the project. Bids will only be accepted from listed contractors. The information that each prospective Bidder must submit to seek prequalification includes (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:~~
- ~~A. [Evidence of prospective Bidder's authority to do business in the state where the Project is located.]~~
- ~~B. [Prospective Bidder's state or other contractor license number, if applicable.]~~
- ~~C. [Subcontractor and Supplier qualification information; coordinate with provisions of Article 12 of these Instructions, "Subcontractors, Suppliers, and Others."]~~
- ~~D. [Other required information regarding qualifications]~~

~~{or}~~

- 3.01 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit with its Bid (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:
- A. [Evidence of Bidder's authority to do business in the state where the Project is located.]
 - B. [Bidder's state or other contractor license number, if applicable.]
 - C. [Subcontractor and Supplier qualification information; coordinate with provisions of Article 12 of these Instructions, "Subcontractors, Suppliers, and Others."]
 - D. [Other required information regarding qualifications]
- 3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.
- 3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.
- 3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

4.01 *Site and Other Areas*

- A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

4.02 *Existing Site Conditions*

- A. Subsurface and Physical Conditions; Hazardous Environmental Conditions
 - 1. The Supplementary Conditions identify:
 - a. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site.
 - b. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
 - c. reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.
 - d. Technical Data contained in such reports and drawings.
 - 2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

~~4. Geotechnical Baseline Report: The Bidding Documents contain a Geotechnical Baseline Report (GBR). The GBR describes certain select subsurface conditions that are anticipated to be encountered by Contractor during construction in specified locations ("Baseline Conditions"). The GBR is a Contract Document.~~

~~The Baseline Conditions in the GBR are intended to reduce uncertainty and the degree of contingency in submitted Bids. However, Bidders cannot rely solely on the Baseline Conditions. Bids should be based on a comprehensive approach that includes an independent review and analysis of the GBR, all other Contract Documents, Technical Data, other available information, and observable surface conditions. Not all potential subsurface conditions are baselined.~~

~~Nothing in the GBR is intended to relieve Bidders of the responsibility to make their own determinations regarding construction costs, bidding strategies, and Bid prices, nor of the responsibility to select and be responsible for the means, methods, techniques, sequences, and procedures of construction, and for safety precautions and programs incident thereto.~~

- B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or adjacent to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.
- C. Adequacy of Data: Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 5.06 of the General Conditions.

4.03 *Site Visit and Testing by Bidders*

- A. Bidder shall conduct the required Site visit during normal working hours, and shall not disturb any ongoing operations at the Site.
- B. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- C. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.
- D. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to

schedule, access, existing operations, security, liability insurance, and applicable safety programs.

- E. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

4.04 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner safety program. As the General Conditions indicate, if an Owner safety program exists, it will be noted in the Supplementary Conditions.

4.05 *Other Work at the Site*

- A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 5 – BIDDER'S REPRESENTATIONS

5.01 It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;
- B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work;
- D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings;
- E. consider the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs;
- F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid 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 required, and in accordance with the other terms and conditions of the Bidding Documents;

- G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and
- J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 6 – PRE-BID CONFERENCE

6.01 A pre-Bid conference will be held at the time and location stated in the invitation or advertisement to bid. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

- 7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all parties recorded as having received the Bidding Documents. Questions received less than seven days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 7.02 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents.

ARTICLE 8 – BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond (on the form included in the Bidding Documents) issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and 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 released. 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 consider Bidder to be in default, annul the Notice of Award, and the Bid security of

that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.

- 8.03 The Bid security of other Bidders that 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 Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within seven days after the Bid opening.

ARTICLE 9 – CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be substantially completed, and completed and ready for final payment, are set forth in the Agreement.

ARTICLE 10 – LIQUIDATED DAMAGES

- 10.01 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 11 – SUBSTITUTE AND "OR-EQUAL" ITEMS

- 11.01 **The Contract for the Work, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, and those "or equal" or substitute materials and equipment subsequently approved by Engineer prior to the submittal of Bids and identified b Addendum. No item of material or equipment will be considered by Engineer as an "or equal" or substitute unless written request for approval has been submitted by the Bidder and has been received by Engineer at least 15 days prior to the date for receipt of Bids in the case of a proposed substitute and 5 days prior in the case of a proposed "or equal." Each such request shall comply with the requirements of Paragraphs 7.04 and 7.05 of the General Conditions. The burden of proof of merit of the proposed item is upon the Bidder. Engineer's decision of approval or disapproval of proposed item will be final. If Engineer approves any such proposed item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other matter. Substitutes and "or-equal" materials and equipment may be proposed by Contractor in accordance with Paragraphs 7.04 and 7.05 of the General Conditions after the Effective Date of the Contract.**
- 11.02 **All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of a post-Bid approval of "or equal" or substitution requests are made at Bidder's sole risk.**
- 11.03 **If award is made, Contractor shall be allowed to submit proposed substitutes and "or equals" in accordance with the General Conditions.**
- ~~11.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or "or-equal" items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or "or-equal"~~

~~item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.~~

~~11.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post Bid approvals of "or equal" or substitution requests are made at Bidder's sole risk.~~

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

12.01 A Bidder shall be prepared to retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of the Work if required by the Bidding Documents (most commonly in the Specifications) to do so, **in accordance with SC7.06B, ITB Article 23, and Article 2.02 of the Bid Form**. If a prospective Bidder objects to retaining any such Subcontractor, Supplier, or other individual or entity, and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.

~~12.02 Subsequent to the submittal of the Bid, Owner may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.~~

12.02 **If required by the bid documents**, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of the Subcontractors or Suppliers proposed for the ~~following portions of the Work~~.

If requested by Owner, such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, or other individual or entity. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

12.03 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.

12.04 **Contractor shall not be required to employ a Subcontractor, Supplier, individual, or entity against whom the Contractor has reasonable objection.**

12.05 **The Contractor shall not award work to a Subcontractor(s) in excess of the limits stated in SC7.06.**

ARTICLE 13 – PREPARATION OF BID

- 13.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
 - B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words “No Bid” or “Not Applicable.”
- 13.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.
- 13.03 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 partnership’s address for receiving notices shall be shown.
- 13.04 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the firm’s address for receiving notices shall be shown.
- 13.05 A Bid by an individual shall show the Bidder’s name and address for receiving notices.
- 13.06 A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture’s address for receiving notices shall be shown.
- 13.07 All names shall be printed in ink below the signatures.
- 13.08 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.09 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.10 The Bid shall contain evidence of Bidder’s authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder’s state contractor license number, if any, shall also be shown on the Bid Form.

ARTICLE 14 – BASIS OF BID

- 14.01 *Lump Sum*
- A. Bidders shall submit a Bid on a lump sum basis as set forth in the Bid Form.
- 14.02 *Unit Price*
- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.
 - B. The “Bid Price” (sometimes referred to as the extended price) for each unit price Bid item will be the product of the “Estimated Quantity” (which Owner or its representative has set forth in the Bid Form) for the item and the corresponding “Bid Unit Price” offered by the Bidder. The total of all unit price Bid items will be the sum of these “Bid Prices”; such total

will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.

- C. 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.

14.03 Allowances

- A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.

~~14.04 Price Plus Time Bids~~

- ~~A. The Owner will consider the time of Substantial Completion commitment made by the Bidder in the comparison of Bids.~~
- ~~B. Bidder shall designate the number of days required to achieve Substantial Completion of the Work and enter that number in the Bid Form as the total number of calendar days to substantially complete the Work.~~
- ~~C. The total number of calendar days for Substantial Completion designated by Bidder shall be less than or equal to a maximum of [], but not less than the minimum of []. If Bidder purports to designate a time for Substantial Completion that is less than the allowed minimum, or greater than the allowed maximum, Owner will reject the Bid as nonresponsive.~~
- ~~D. The Agreement as executed will contain the Substantial Completion time designated in Successful Bidder's Bid, and the Contractor will be assessed liquidated damages at the rate stated in the Agreement for failure to attain Substantial Completion within that time.~~
- ~~E. [Bidder shall also designate the time in which it will achieve Milestones, and achieve readiness for final payment. Such time commitments shall be consistent with the "Time of Substantial Completion" to which Bidder commits. The Agreement as executed will contain, as binding Contract Times, Successful Bidder's time commitments regarding Milestones, as applicable, and readiness for final payment.]~~

ARTICLE 15 – SUBMITTAL OF BID

- 15.01 With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 7 of the Bid Form.
- 15.02 A Bid shall be received no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to **Barkley Lake Water District, 1420 Canton Road, Cadiz, Kentucky 42211.**

- 15.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 16.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 16.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 – OPENING OF BIDS

- 17.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. 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.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.
- 19.02 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.
- 19.03 Evaluation of Bids
- A. In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
 - B. **In comparison of the bids, if there is no acceptable bid within available project funds, alternate deducts will be applied in the same order of priority as listed in the bid form.**

Divisions will be deleted in their entirety, beginning with Division H and continuing in reverse alphabetical order until the bid is within available project funds. To determine the bid prices for purpose of comparison, Owner shall announce a “Base bid minus any necessary deducts” budget after receiving all bids, but prior to the opening of them. For comparison purposes, deductions will be made, following the order of priority established in the Bid Form, until an acceptable bid is within the project funds available. All bids will be recalculated with each deduction, and each bidder should be aware, the apparent low bidder may change following each deduction. After determination of Successful Bidder based on this comparative process and on the responsiveness, responsibilities, and other factors set forth in these instructions, the award may be made to said Successful Bidder on its base bid, minus any deductions to the base bid price.

- B. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.
- ~~C. Bid prices will be compared after adjusting for differences in time of Substantial Completion (total number of calendar days to substantially complete the Work) designated by Bidders. The adjusting amount will be determined at the rate set forth in the Agreement for liquidated damages for failing to achieve Substantial Completion, or such other amount that Owner has designated in the Bid Form.~~
 - ~~1. The method for calculating the lowest bid for comparison will be the summation of the Bid price shown in the Bid Form plus the product of the Bidder specified time of Substantial Completion (in calendar days) times the rate for liquidated damages [or other Owner designated daily rate] (in dollars per day).~~
 - ~~2. This procedure is only used to determine the lowest bid for comparison and contractor selection purposes. The Contract Price for compensation and payment purposes remains the Bid price shown in the Bid Form.~~

19.04 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.

19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 20 – BONDS AND INSURANCE

20.01 Article 6 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 Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.

ARTICLE 21 – SIGNING OF AGREEMENT

21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within ten days

thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 22 – SALES AND USE TAXES

~~22.01 Owner is exempt from [] state sales and use taxes on materials and equipment to be incorporated in the Work. (Exemption No. []). Said taxes shall not be included in the Bid. Refer to Paragraph SC 7.09 of the Supplementary Conditions for additional information.~~

~~*this Article if necessary.*~~

ARTICLE 23 – CONTRACTS TO BE ASSIGNED

Not applicable.

ARTICLE 24 – FEDERAL WAGE RATE REQUIREMENTS

24.01 Federal requirements in Article 19 of the Supplementary Conditions apply to this Project.

24.02 If the contract price is in excess of \$100,000.00, provisions of the Contract Work Hours and Safety Standards Act at 29 CFR 5.5(b) apply.

BID FORM

**CONTRACT 586-24-01
LAKESIDE AREA WATER LINE REPLACEMENT
BARKLEY LAKE WATER DISTRICT
TRIGG COUNTY, KENTUCKY**

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ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

***Barkley Lake Water District
1420 Canton Road
Cadiz, Kentucky 42211***

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<u>Addendum No.</u>	<u>Addendum, Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information,

observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. 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.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. 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 collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the price(s) as shown on the Form of Proposal following Article 9.01 of this Section C-410 of these Specifications.

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete within 365 calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 365 calendar days after the date when the Contract Times commence to run.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:

- A. Required Bid security;
- B. List of Proposed Subcontractors;
- C. List of Proposed Suppliers;
- D. List of Project References;
- E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
- F. Contractor's License No.: _____ [or] Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
- G. Required Bidder Qualification Statement with supporting data; and

ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By:
[Signature] _____

[Printed name] _____
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:
[Signature] _____

[Printed name] _____

Title: _____

Submittal Date: _____

Address for giving notices:

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

Bidder's License No.: _____
(where applicable)

Item No.	Item	Quantity	Unit	Unit Price	Total
----------	------	----------	------	------------	-------

If the Contract is to be awarded, it will be awarded to the lowest responsive, responsible Base Bidder whose evaluation by the OWNER indicates to the OWNER that the award will be in the best interest of the Project.

DIVISION A-WATER LINES

1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	4,180	L.F.	\$_____	\$_____
2.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	6,187	L.F.	\$_____	\$_____
3.	3-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	600	L.F.	\$_____	\$_____
4.	6-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	4	Each	\$_____	\$_____
5.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	7	Each	\$_____	\$_____
6.	3-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	4	Each	\$_____	\$_____
7.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	6	Each	\$_____	\$_____
8.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	5	Each	\$_____	\$_____
9.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$_____	\$_____
10.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	71	Each	\$_____	\$_____
11.	3/4-Inch Corporation Stop and Saddle for 6-Inch PVC Pipe, Complete	19	Each	\$_____	\$_____
12.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	49	Each	\$_____	\$_____
13.	3/4-Inch Corporation Stop and Saddle for 3-Inch PVC Pipe, Complete	3	Each	\$_____	\$_____

LAKESIDE AREA WATER LINE REPLACEMENT
 BARKLEY LAKE WATER DISTRICT
 TRIGG COUNTY, KENTUCKY

Item No.	Item	Quantity	Unit	Unit Price	Total
14.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	340	L.F.	\$_____	\$_____
15.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	4	Each	\$_____	\$_____
16.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	4	Each	\$_____	\$_____
17.	Tie in to Existing 3-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$_____	\$_____
18.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$_____	\$_____
19.	Tie in to Existing 6-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$_____	\$_____
20.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	1,759	L.F.	\$_____	\$_____
21.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	40	L.F.	\$_____	\$_____
22.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	263	L.F.	\$_____	\$_____
23.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	2,062	L.F.	\$_____	\$_____
24.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	10	C.Y.	\$_____	\$_____
25.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$_____	\$_____
26.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$_____	\$_____
SUBTOTAL-DIVISION A					\$_____
DIVISION B-WATER LINES					
1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	1,928	L.F.	\$_____	\$_____

LAKESIDE AREA WATER LINE REPLACEMENT
 BARKLEY LAKE WATER DISTRICT
 TRIGG COUNTY, KENTUCKY

Item No.	Item	Quantity	Unit	Unit Price	Total
2.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	10,732	L.F.	\$_____	\$_____
3.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	12	Each	\$_____	\$_____
4.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	8	Each	\$_____	\$_____
5.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$_____	\$_____
6.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	134	Each	\$_____	\$_____
7.	3/4-Inch Corporation Stop and Saddle for 6-Inch PVC Pipe, Complete	13	Each	\$_____	\$_____
8.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	121	Each	\$_____	\$_____
9.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	635	L.F.	\$_____	\$_____
10.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	8	Each	\$_____	\$_____
11.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	9	Each	\$_____	\$_____
12.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	2,119	L.F.	\$_____	\$_____
13.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	80	L.F.	\$_____	\$_____
14.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	2,062	L.F.	\$_____	\$_____
15.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$_____	\$_____
16.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$_____	\$_____
17.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	20	Ton	\$_____	\$_____

Item No.	Item	Quantity	Unit	Unit Price	Total
SUBTOTAL-DIVISION B					\$_____
DIVISION C-WATER LINES					
1.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	11,575	L.F.	\$_____	\$_____
2.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	12	Each	\$_____	\$_____
3.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	3	Each	\$_____	\$_____
4.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	2	Each	\$_____	\$_____
5.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$_____	\$_____
6.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	49	Each	\$_____	\$_____
7.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	49	Each	\$_____	\$_____
8.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	245	L.F.	\$_____	\$_____
9.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	2	Each	\$_____	\$_____
10.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	5	Each	\$_____	\$_____
11.	Tie in to Existing 2-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$_____	\$_____
12.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	6	Each	\$_____	\$_____
13.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	1,027	L.F.	\$_____	\$_____
14.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	20	L.F.	\$_____	\$_____

LAKESIDE AREA WATER LINE REPLACEMENT
 BARKLEY LAKE WATER DISTRICT
 TRIGG COUNTY, KENTUCKY

Item No.	Item	Quantity	Unit	Unit Price	Total
15.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	20	L.F.	\$_____	\$_____
16.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	1,067	L.F.	\$_____	\$_____
17.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$_____	\$_____
18.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$_____	\$_____
19.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$_____	\$_____
	SUBTOTAL-DIVISION C				\$_____
DIVISION D-WATER LINES					
1.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	13,554	L.F.	\$_____	\$_____
2.	3-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	810	L.F.	\$_____	\$_____
3.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	10	Each	\$_____	\$_____
4.	3-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	3	Each	\$_____	\$_____
5.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	8	Each	\$_____	\$_____
6.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	5	Each	\$_____	\$_____
7.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$_____	\$_____
8.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	79	Each	\$_____	\$_____
9.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	78	Each	\$_____	\$_____
10.	3/4-Inch Corporation Stop and Saddle for 3-Inch PVC Pipe, Complete	1	Each	\$_____	\$_____

LAKESIDE AREA WATER LINE REPLACEMENT
 BARKLEY LAKE WATER DISTRICT
 TRIGG COUNTY, KENTUCKY

Item No.	Item	Quantity	Unit	Unit Price	Total
11.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	395	L.F.	\$_____	\$_____
12.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	1	Each	\$_____	\$_____
13.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	20	Each	\$_____	\$_____
14.	Tie in to Existing 3-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$_____	\$_____
15.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	5	Each	\$_____	\$_____
16.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	1,280	L.F.	\$_____	\$_____
17.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	453	L.F.	\$_____	\$_____
18.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	1,733	L.F.	\$_____	\$_____
19.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$_____	\$_____
20.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$_____	\$_____
21.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$_____	\$_____
SUBTOTAL-DIVISION D					\$_____

DIVISION E-WATER LINES

1.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	10,708	L.F.	\$_____	\$_____
2.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	11	Each	\$_____	\$_____
3.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	3	Each	\$_____	\$_____
4.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$_____	\$_____

Item No.	Item	Quantity	Unit	Unit Price	Total
5.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$_____	\$_____
6.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	67	Each	\$_____	\$_____
7.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	67	Each	\$_____	\$_____
8.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	335	L.F.	\$_____	\$_____
9.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	2	Each	\$_____	\$_____
10.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	1	Each	\$_____	\$_____
11.	Tie in to Existing 2-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$_____	\$_____
12.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	2	Each	\$_____	\$_____
13.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	964	L.F.	\$_____	\$_____
14.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	25	L.F.	\$_____	\$_____
15.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	989	L.F.	\$_____	\$_____
16.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$_____	\$_____
17.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$_____	\$_____
18.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$_____	\$_____
SUBTOTAL-DIVISION E					\$_____

DIVISION F-WATER LINES

1.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	11,263	L.F.	\$_____	\$_____
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LAKESIDE AREA WATER LINE REPLACEMENT
 BARKLEY LAKE WATER DISTRICT
 TRIGG COUNTY, KENTUCKY

Item No.	Item	Quantity	Unit	Unit Price	Total
2.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	19	Each	\$_____	\$_____
3.	2-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	1	Each	\$_____	\$_____
4.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	3	Each	\$_____	\$_____
5.	8-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$_____	\$_____
6.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	64	Each	\$_____	\$_____
7.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	64	Each	\$_____	\$_____
8.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	320	L.F.	\$_____	\$_____
9.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	1	Each	\$_____	\$_____
10.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	20	Each	\$_____	\$_____
11.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	13	Each	\$_____	\$_____
12.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	1,335	L.F.	\$_____	\$_____
13.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	120	L.F.	\$_____	\$_____
14.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	1,455	L.F.	\$_____	\$_____
15.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer	5	C.Y.	\$_____	\$_____
16.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$_____	\$_____
17.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$_____	\$_____
SUBTOTAL-DIVISION F					\$_____

Item No.	Item	Quantity	Unit	Unit Price	Total
DIVISION G-WATER LINES					
1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	5,389	L.F.	\$_____	\$_____
2.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	6,286	L.F.	\$_____	\$_____
3.	6-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	3	Each	\$_____	\$_____
4.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	11	Each	\$_____	\$_____
5.	3-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	1	Each	\$_____	\$_____
6.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	2	Each	\$_____	\$_____
7.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	3	Each	\$_____	\$_____
8.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$_____	\$_____
9.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	45	Each	\$_____	\$_____
10.	3/4-Inch Corporation Stop and Saddle for 6-Inch PVC Pipe, Complete	14	Each	\$_____	\$_____
11.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	31	Each	\$_____	\$_____
12.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	225	L.F.	\$_____	\$_____
13.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	1	Each	\$_____	\$_____
14.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	11	Each	\$_____	\$_____
15.	Tie in to Existing 3-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$_____	\$_____

Item No.	Item	Quantity	Unit	Unit Price	Total
16.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	9	Each	\$_____	\$_____
17.	Tie in to Existing 6-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$_____	\$_____
18.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	899	L.F.	\$_____	\$_____
19.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	24	L.F.	\$_____	\$_____
20.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	360	L.F.	\$_____	\$_____
21.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	1,283	L.F.	\$_____	\$_____
22.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$_____	\$_____
23.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$_____	\$_____
24.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$_____	\$_____
SUBTOTAL-DIVISION G					\$_____
DIVISION H-WATER LINES					
1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	647	L.F.	\$_____	\$_____
2.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	15,006	L.F.	\$_____	\$_____
3.	6-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	1	Each	\$_____	\$_____
4.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	6	Each	\$_____	\$_____
5.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	9	Each	\$_____	\$_____
6.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	10	Each	\$_____	\$_____

LAKESIDE AREA WATER LINE REPLACEMENT
 BARKLEY LAKE WATER DISTRICT
 TRIGG COUNTY, KENTUCKY

Item No.	Item	Quantity	Unit	Unit Price	Total
7.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	3	Each	\$_____	\$_____
8.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	94	Each	\$_____	\$_____
9.	3/4-Inch Corporation Stop and Saddle for 6-Inch PVC Pipe, Complete	24	Each	\$_____	\$_____
10.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	70	Each	\$_____	\$_____
11.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	470	L.F.	\$_____	\$_____
12.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	1	Each	\$_____	\$_____
13.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	3	Each	\$_____	\$_____
14.	Tie in to Existing 6-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$_____	\$_____
15.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	2,272	L.F.	\$_____	\$_____
16.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	24	L.F.	\$_____	\$_____
17.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	830	L.F.	\$_____	\$_____
18.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	3,126	L.F.	\$_____	\$_____
19.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$_____	\$_____
20.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$_____	\$_____
21.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$_____	\$_____
SUBTOTAL-DIVISION H					\$_____

CONTRACT 586-24-01

LAKESIDE AREA WATER LINE REPLACEMENT
BARKLEY LAKE WATER DISTRICT
TRIGG COUNTY, KENTUCKY

Item No.	Item	Quantity	Unit	Unit Price	Total
SUMMARY					
	DIVISION A-WATER LINES				\$_____
	DIVISION B-WATER LINES				\$_____
	DIVISION C-WATER LINES				\$_____
	DIVISION D-WATER LINES				\$_____
	DIVISION E-WATER LINES				\$_____
	DIVISION F-WATER LINES				\$_____
	DIVISION G-WATER LINES				\$_____
	DIVISION H-WATER LINES				\$_____
	TOTAL BID CONTRACT 586-24-01				\$_____

DETERMINATION OF LOW BID

In the comparison of the bids, if there is no acceptable bid within available Project funds, divisions will be deleted in their entirety, beginning with Division H and continuing in reverse alphabetical order until the bid is within project funds. All bids will be recalculated with each deduction and each bidder should be aware that the apparent low bidder may change following each deduction. After determination of successful bidder based on this comparative process and on the responsiveness, responsibilities, and other factors set forth in these instructions, the award may be made to said successful bidder on its base bid, minus any deductions to the base bid price.

See Specifications Section C-200, Article 19, for additional information.

BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

Barkley Lake Water District
1420 Canton Road
Cadiz, Kentucky 42211

BID

Bid Due Date:

Description (*Project Name— Include Location*):

BOND

Bond Number:

Date:

Penal sum

\$

(Words)

(Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER

SURETY

(Seal)

(Seal)

Bidder's Name and Corporate Seal

Surety's Name and Corporate Seal

By:

Signature

By:

Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest:

Signature

Attest:

Signature

Title

Title

Note: Addresses are to be used for giving any required notice.

Provide execution by any additional parties, such as joint venturers, if necessary.

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. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
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 of 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 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 the 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 the 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.

QUALIFICATIONS STATEMENT

THE INFORMATION SUPPLIED IN THIS DOCUMENT IS CONFIDENTIAL TO THE EXTENT PERMITTED BY LAWS AND REGULATIONS

1. SUBMITTED BY:

Official Name of Firm: _____

Address: _____

2. SUBMITTED TO: _____

3. SUBMITTED FOR: _____

Owner: _____

Project Name: _____

TYPE OF WORK: _____

4. CONTRACTOR'S CONTACT INFORMATION

Contact Person: _____

Title: _____

Phone: _____

Email: _____

5. AFFILIATED COMPANIES:

Name: _____

Address: _____

6. TYPE OF ORGANIZATION:

SOLE PROPRIETORSHIP

Name of Owner: _____

Doing Business As: _____

Date of Organization: _____

PARTNERSHIP

Date of Organization: _____

Type of Partnership: _____

Name of General Partner(s): _____

CORPORATION

State of Organization: _____

Date of Organization: _____

Executive Officers:

- President: _____

- Vice President(s): _____

- Treasurer: _____

- Secretary: _____

LIMITED LIABILITY COMPANY

State of Organization: _____

Date of Organization: _____

Members: _____

JOINT VENTURE

Sate of Organization: _____

Date of Organization: _____

Form of Organization: _____

Joint Venture Managing Partner

- Name: _____

- Address: _____

Joint Venture Managing Partner

- Name: _____

- Address: _____

Joint Venture Managing Partner

- Name: _____

- Address: _____

7. LICENSING

Jurisdiction: _____

Type of License: _____

License Number: _____

Jurisdiction: _____

Type of License: _____

License Number: _____

8. CERTIFICATIONS

CERTIFIED BY:

Disadvantage Business Enterprise: _____

Minority Business Enterprise: _____

Woman Owned Enterprise: _____

Small Business Enterprise: _____

Other (_____): _____

9. BONDING INFORMATION

Bonding Company: _____

Address: _____

Bonding Agent: _____

Address: _____

Contact Name: _____

Phone: _____

Aggregate Bonding Capacity: _____

Available Bonding Capacity as of date of this submittal: _____

10. FINANCIAL INFORMATION

Financial Institution: _____

Address: _____

Account Manager: _____

Phone:

INCLUDE AS AN ATTACHMENT AN AUDITED BALANCE SHEET FOR EACH OF THE
LAST 3 YEARS ONLY IF REQUIRED BY OWNER SUBSEQUENT TO RECEIPT OF BIDS.

11. CONSTRUCTION EXPERIENCE:

Current Experience:

List on **Schedule A** all uncompleted projects currently under contract (If Joint Venture list each participant's projects separately).

Previous Experience:

List on **Schedule B** all projects completed within the last 5 Years (If Joint Venture list each participant's projects separately).

Has firm listed in Section 1 ever failed to complete a construction contract awarded to it?

YES NO

If YES, attach as an Attachment details including Project Owner's contact information.

Has any Corporate Officer, Partner, Joint Venture participant or Proprietor ever failed to complete a construction contract awarded to them in their name or when acting as a principal of another entity?

YES NO

If YES, attach as an Attachment details including Project Owner's contact information.

Are there any judgments, claims, disputes or litigation pending or outstanding involving the firm listed in Section 1 or any of its officers (or any of its partners if a partnership or any of the individual entities if a joint venture)?

YES NO

If YES, attach as an Attachment details including Project Owner's contact information.

12. SAFETY PROGRAM:

Name of Contractor's Safety Officer: _____

Include the following as attachments:

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) OSHA No. 500- Log & Summary of Occupational Injuries & Illnesses for the past 5 years.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all OSHA Citations & Notifications of Penalty (monetary or other) received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all safety citations or violations under any state all received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE.

Provide the following for the firm listed in Section V (and for each proposed Subcontractor furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) the following (attach additional sheets as necessary):

Workers' compensation Experience Modification Rate (EMR) for the last 5 years:

YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____

Total Recordable Frequency Rate (TRFR) for the last 5 years:

YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____

Total number of man-hours worked for the last 5 Years:

YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____

Provide Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) Days Away From Work, Days of Restricted Work Activity or Job Transfer (DART) incidence rate for the particular industry or type of Work to be performed by Contractor and each of Contractor's proposed Subcontractors and Suppliers) for the last 5 years:

YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____

13. EQUIPMENT:

MAJOR EQUIPMENT:

List on **Schedule C** all pieces of major equipment available for use on Owner's Project.

I HEREBY CERTIFY THAT THE INFORMATION SUBMITTED HEREWITH, INCLUDING ANY ATTACHMENTS, IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NAME OF ORGANIZATION: _____

BY: _____

TITLE: _____

DATED: _____

NOTARY ATTEST:

SUBSCRIBED AND SWORN TO BEFORE ME

THIS _____ DAY OF _____, 20__

NOTARY PUBLIC - STATE OF _____

MY COMMISSION EXPIRES: _____

REQUIRED ATTACHMENTS

1. Schedule A (Current Experience).
2. Schedule B (Previous Experience).
3. Schedule C (Major Equipment).
4. Audited balance sheet for each of the last 3 years for firm named in Section 1.
5. Evidence of authority for individuals listed in Section 7 to bind organization to an agreement.
6. Resumes of officers and key individuals (including Safety Officer) of firm named in Section 1.
7. Required safety program submittals listed in Section 13.
8. Additional items as pertinent.

SCHEDULE A

CURRENT EXPERIENCE

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

**AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

THIS AGREEMENT is by and between Barkley Lake Water District (“Owner”) and
_____ (“Contractor”).

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

ARTICLE 2 – THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: Contract 586-24-01, Lakeside Area Water Line Replacement, Barkley Lake Water District, Trigg County, Kentucky.

ARTICLE 3 – ENGINEER

3.01 The part of the Project that pertains to the Work has been designed by Bell Engineering, 107 Forbes Drive, Hopkinsville, Kentucky 42240.

3.02 The Owner has retained Bell Engineering (“Engineer”) to act as Owner’s representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

A. 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.

4.02 *Contract Times: Days*

A. The Work will be substantially completed within 365 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 of the General Conditions within 365 days after the date when the Contract Times commence to run.

4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration 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):

1. Substantial Completion: Contractor shall pay Owner \$750.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$500.00 for each day that expires after such time until the Work is completed and ready for final payment.
3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

4.04 *Special Damages*

- A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the sum of the amounts included on the Form of Proposal, subject to adjustment under the Contract.

- A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit. See attached Exhibit, pages 2a through 2c.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the tenth day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in 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 elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
 - a. 90 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and

progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and

- b. 90 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 100 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

- 7.01 An amount not paid when due shall bear interest at the maximum legal rate.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
 - A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, 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 Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
 - E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.

- F. Contractor agrees that no 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.
- G. 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.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer 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.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 7, inclusive).
 - 2. Performance bond (pages 1 to 3, inclusive).
 - 3. Payment bond (pages 1 to 3 inclusive).
 - 4. Other bonds.
 - a. Bid bond (pages 1 to 2, inclusive).
 - 5. General Conditions (pages 1 to 65, inclusive).
 - 6. Supplementary Conditions (pages 1 to 17, inclusive).
 - 7. Specifications as listed in the table of contents of the Project Manual.
 - 8. Drawings (not attached but incorporated by reference) consisting of 43 sheets with each sheet bearing the following general title: Contract 586-24-01, Lakeside Area Water Line Replacement, Barkley Lake Water District, Trigg County, Kentucky.
 - 9. Addenda (numbers to , inclusive).
 - 10. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages to , inclusive).
 - 11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).

- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 Terms

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 Assignment of Contract

- A. Unless expressly agreed to elsewhere in the Contract, 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, money that may become due and money that is 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.

10.03 Successors and Assigns

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

10.04 Severability

- A. 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.

10.05 Contractor's Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 *Other Provisions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

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

OWNER: BARKLEY LAKE WATER DISTRICT

CONTRACTOR:

By: _____

By: _____

Title: _____

Title: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

1420 Canton Road

Cadiz, Kentucky 42211

License No.: _____
(where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

PERFORMANCE BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*
 Barkley Lake Water District
 1420 Canton Road
 Cadiz, Kentucky 42211

CONSTRUCTION CONTRACT
 Effective Date of the Agreement:
 Amount:
 Description *(name and location):*

BOND
 Bond Number:
 Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*
 Amount:
 Modifications to this Bond Form: None See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

 Contractor's Name and Corporate Seal *(seal)*

 Surety's Name and Corporate Seal *(seal)*

By: _____
 Signature

By: _____
 Signature *(attach power of attorney)*

 Print Name

 Print Name

 Title

 Title

Attest: _____
 Signature

Attest: _____
 Signature

 Title

 Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

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

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. 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:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence,

to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

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

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven 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 5.4, and the Owner refuses the payment 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.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 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 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction 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, successors, and assigns.

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

11. 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 a declaration of 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 periods of limitations 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 address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction 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. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for 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 Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

PAYMENT BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

Barkley Lake Water District
1420 Canton Road
Cadiz, Kentucky 42211

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):*

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: None See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

_____ *(seal)*

Contractor's Name and Corporate Seal

_____ *(seal)*

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and 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 Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction 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 Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the

Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, 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.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction 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. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **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 Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction 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.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

Contractor's Application for Payment No.

	Application Period:	Application Date:
To (Owner):	From (Contractor):	Via (Engineer):
Project:	Contract:	
Owner's Contract No.:	Contractor's Project No.:	Engineer's Project No.:

**Application For Payment
Change Order Summary**

Approved Change Orders			
Number	Additions	Deductions	
			1. ORIGINAL CONTRACT PRICE..... \$ _____
			2. Net change by Change Orders..... \$ _____
			3. Current Contract Price (Line 1 ± 2)..... \$ _____
			4. TOTAL COMPLETED AND STORED TO DATE (Column F total on Progress Estimates)..... \$ _____
			5. RETAINAGE:
			a. X Work Completed..... \$ _____
			b. X Stored Material..... \$ _____
			c. Total Retainage (Line 5.a + Line 5.b)..... \$ _____
			6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c)..... \$ _____
			7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)..... \$ _____
			8. AMOUNT DUE THIS APPLICATION..... \$ _____
			9. BALANCE TO FINISH, PLUS RETAINAGE (Column G total on Progress Estimates + Line 5.c above)..... \$ _____
TOTALS			
NET CHANGE BY CHANGE ORDERS			

Contractor's Certification	
The undersigned Contractor certifies, to the best of its knowledge, the following:	
(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;	
(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and	
(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.	
Contractor Signature	
By: _____	Date: _____

Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

is recommended by: _____ (Engineer) _____ (Date)

Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ (Owner) _____ (Date)

Approved by: _____
Funding or Financing Entity (if applicable) _____ (Date)

Contractor's Application for Payment No. _____

Application Period:	Application Date:
To (Owner):	From (Contractor):
Project:	Contract:
Owner's Contract No.:	Contractor's Project No.:
	Engineer's Project No.:

**Application For Payment
Change Order Summary**

Approved Change Orders	1. ORIGINAL CONTRACT PRICE.....	\$ _____
Number	2. Net change by Change Orders.....	\$ _____
Additions	3. Current Contract Price (Line 1 ± 2).....	\$ _____
Deductions	4. TOTAL COMPLETED AND STORED TO DATE	
	(Column F total on Progress Estimates).....	\$ _____
	5. RETAINAGE:	
	a. X _____ Work Completed.....	\$ _____
	b. X _____ Stored Material.....	\$ _____
	c. Total Retainage (Line 5.a + Line 5.b).....	\$ _____
	6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c).....	\$ _____
TOTALS	7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application).....	\$ _____
NET CHANGE BY	8. AMOUNT DUE THIS APPLICATION.....	\$ _____
CHANGE ORDERS	9. BALANCE TO FINISH, PLUS RETAINAGE	
	(Column G total on Progress Estimates + Line 5.c above).....	\$ _____

Contractor's Certification
The undersigned Contractor certifies, to the best of its knowledge, the following:
(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;
(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and
(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature
By: _____ Date: _____

Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

Approved by: _____ (Date)
Resident Project Representative

is recommended by: _____ (Date)
(Engineer)

Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ (Date)
(Owner)

Approved by: _____ (Date)
Funding or Financing Entity (if applicable)

CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner:	Owner's Contract No.:
Contractor:	Contractor's Project No.:
Engineer:	Engineer's Project No.:
Project:	Contract Name:

This [preliminary] [final] Certificate of Substantial Completion applies to:

All Work The following specified portions of the Work:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work shall be as provided in the Contract, except as amended as follows: *[Note: Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.]*

Amendments to Owner's responsibilities: None
 As follows

Amendments to Contractor's responsibilities: None
 As follows:

The following documents are attached to and made a part of this Certificate: *[punch list; others]*

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract.

EXECUTED BY ENGINEER:		RECEIVED:		RECEIVED:	
By: _____	By: _____	By: _____	By: _____	By: _____	By: _____
(Authorized signature)		Owner (Authorized Signature)		Contractor (Authorized Signature)	
Title: _____	Title: _____	Title: _____	Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____

**STANDARD GENERAL CONDITIONS OF THE
CONSTRUCTION CONTRACT**

**CONTRACT 586-24-01
LAKESIDE AREA WATER LINE REPLACEMENT
BARKLEY LAKE WATER DISTRICT
TRIGG COUNTY, KENTUCKY**

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. 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, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 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. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document 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, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer

has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5101 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner’s acceptance of the Bid.
27. *Notice to Proceed*—A written notice 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.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *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.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or “RPR” includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals and the performance of related construction activities.
35. *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.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *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, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *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.
40. *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.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *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 a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *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 but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *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; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in the following paragraphs 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 Article 10 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 15.03 or 15.04).
- 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. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- 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. *Bonds*: 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 Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), 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;
 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.

2.04 *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 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, 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 and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *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 2.03.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 the component parts of the Work.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or

computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, 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.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

- A. Standards Specifications, Codes, Laws and Regulations
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, 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, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract 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, reference standard, 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 part of the Contract Documents prepared by or for Engineer. 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 part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*
 - 1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict,

error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents:* If, before or 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) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) 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 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
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 part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); 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 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers 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 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; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- 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.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *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 Contract 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 Contract. 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 Contract, whichever date is earlier.

4.02 *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 such date.

4.03 *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.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 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 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. 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, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, 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 Times and Contract Price. 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.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. 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. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. abnormal weather conditions;
 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *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.
- 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 permanent improvements are to be made 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.

5.02 *Use of Site and Other Areas*

- A. *Limitation on Use of Site and Other Areas:*
 - 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 - 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, 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 any such claim, and against all 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 directly or indirectly, in whole or in part

by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent 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 and adjacent areas 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 of 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 structures or land to stresses or pressures that will endanger them.

5.03 *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 adjacent to the Site;
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
 - 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on 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.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site 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 5.03 is materially inaccurate; or
 2. is of such a nature as to require a change in the Drawings or Specifications; 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 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, 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 fall within any one or more of the categories described in Paragraph 5.04.A;
 - 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 Paragraph 13.03; and,

- c. 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.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a 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 otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent 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 do not warrant or guarantee 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 information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then 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 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - 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 Paragraph 13.03;
 - c. 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; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 - 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings*: The Supplementary Conditions identify:
1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on 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 removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) 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 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. 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, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. 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, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. 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 (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. 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 failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, 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. 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 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond 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 the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then 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 bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is

maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, 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.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 2. claims for damages insured by reasonably available personal injury liability coverage.
 3. 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.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability:* Contractor shall purchase and maintain automobile liability insurance against 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. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result

of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

- G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; 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 (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:
 - 1. include at least the specific coverages provided in this Article.
 - 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 - 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 - 4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 - 5. be appropriate for the Work being performed and provide protection from claims that 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.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, 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.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable 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 Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 - 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; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; 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. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 - 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 - 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, 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 insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the 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 Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, 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 or Contractor as trustee or fiduciary, 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 occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.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, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, 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 builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the

policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *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.
- 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.

7.02 *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, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *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, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work 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.

7.04 "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 Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item 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 is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that 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, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, 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;
 - 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
 - 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.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 *Substitutes*

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
 - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
 - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 - 3. 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:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) 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
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and

- 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
 - C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
 - D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. 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.
 - E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
 - F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. 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 the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. 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.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. 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.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

- O. 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 money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *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.

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, 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 the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *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.

7.10 *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 or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and 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 such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

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

7.12 *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, other work in progress, 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 Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
 - 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 7.12.A.2 or 7.12.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 at its expense (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 protection 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 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
 - G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *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.

7.14 *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.

7.15 *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.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the 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 and equipment 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 of that submittal, and that Contractor approves the 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 set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Contractor shall submit the number of copies required in the Specifications.

- 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 7.16.D.
2. *Samples:*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall 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 7.16.D.
 3. 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. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.
- 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 or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample 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 7.16.A.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 will document any such approved variation from the requirements of the Contract Documents in a Field Order.
 5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
 6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.

7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.
 8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.
- 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.
 2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
 3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *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 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;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or

8. any correction of defective Work by Owner.
- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, 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 7.18.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 7.18.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.

7.19 *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 Laws and Regulations.
- 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, 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, 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 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. 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.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, 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.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. an itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. the extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner for whom the Owner is responsible causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. 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.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) 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 any such claims, and against all 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 damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

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

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

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

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *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.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *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 (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- 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.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *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.

10.02 *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 10.08. 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.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. 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.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. 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, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

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

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, 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 15.06.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 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an

adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes 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. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-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. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *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, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. 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, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on

the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

- C. *Contractor's Fee*: When applicable, 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 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.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 11.04.C.2.a and 11.04.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - 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 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
 3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. 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;
 2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *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.

ARTICLE 12 – CLAIMS

12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
 - 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 - 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 - 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation:*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim

submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work 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 13.01.C, 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, and 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 13.01.
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 6.05), 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 communication 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 that Contractor is required by the Contract Documents to purchase and maintain.

C. *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 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here 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 Paragraph 13.01.B.

D. *Contractor's Fee:* When the Work as a whole 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, Change Proposal, Claim, set-off, or other 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 11.04.C.

E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, 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.

13.02 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*: Contractor agrees that:
 - 1. 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
 - 2. 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*: 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.

13.03 *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. Payments to Contractor for Unit Price Work will be based on actual quantities.
- 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. 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 the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price 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;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that it 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 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction 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.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- 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, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 - 3. by manufacturers of equipment furnished under the Contract Documents;
 - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. 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. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages 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. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then 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, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages 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 pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. 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, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *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, then 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.

14.07 *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, 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, then 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 14.07, 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, 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 incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. 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 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 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 during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *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, a warehouse bond, 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.
- C. *Review of Applications:*
1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, 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 13.03, 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; 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 money 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 15.01.C.2.
 6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

- e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

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

E. *Reductions in Payment by Owner:*

- 1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. 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;
 - l. there are other items entitling Owner to a set off against the amount recommended.
- 2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, 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, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

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 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *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 and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- 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 preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. 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 punch list.

15.04 *Partial Use or Occupancy*

- 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. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be 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 15.03.A through E for that part of the Work.
 - 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work 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 15.03 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 6.05 regarding builder's risk or other property insurance.

15.05 *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, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *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, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) 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, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

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 have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. 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 15.07. 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. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation,

including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *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 Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 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 to 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. 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 repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- 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, 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 are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *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 written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and 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);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, 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 complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.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 the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses,

and damages exceeds 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.

- F. 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, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *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; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) 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 16.03.
- 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 are not intended to preclude Contractor from submitting a Change Proposal 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 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this Article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 - 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this Article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *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, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract 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.

18.03 *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. 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.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

**CONTRACT 586-24-01
LAKESIDE AREA WATER LINE REPLACEMENT
BARKLEY LAKE WATER DISTRICT
TRIGG COUNTY, KENTUCKY**

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

SC-1.01 Defined Terms

- A. Section C-700, following Article 1.01.A.48, add the following paragraph:
49. Bonds--Bid, performance and payment bonds, and/or other instruments of security.
- B. Section C-700--Article 1.01.A.27, change the first sentence to read: "A written notice by Owner to Contractor (with copy to Engineer) . . ."
- C. Section C-700, following Article 1.01.A.49, add the following paragraph:
50. Partial Utilization--Placing a portion of the Work in service for the purpose for which it is intended (or a related purpose) before reaching completion for all the Work.
- D. Section C-700, following Article 1.01.A.50, add the following paragraph:
51. Special Conditions--Additional instructions to the Bidder/Contractor denoting special construction or other requirements applicable to this Contract.
- E. Section C-700--Article 1.01.31, delete this paragraph in its entirety.
- F. Section C-700--Article 1.01.A.37, revise the paragraph to read "Lands or areas indicated in the Contract Documents as being furnished by the Owner upon which the work is to be performed, including fee simple property, rights-of-way, permanent and temporary construction easements, encroachment permits from governmental and private entities, and such other lands furnished by the Owner which are designated for the use of the Contractor in the completion of the Work."
- G. Section C-700, following Article 1.01.A.51, add the following paragraph:
52. Written Notice--Any notice to any party of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the Work.

ARTICLE 2 – PRELIMINARY MATTERS

SC-2.05 Initial Acceptance of Schedules

- A. SC-2.05, delete paragraph A and replace with the following paragraph A:

A. Initial Acceptance of Schedules

The Contractor shall, within 5 days after the Work commences on the Contract or another period of time determined by the Owner/Engineer, prepare and submit to the Owner/Engineer:

- 1. Three copies of a practicable schedule showing the order in which the Contractor proposes to perform the Work, and the dates on which the Contractor contemplates starting and completing to several salient features of the Work (including acquiring materials, plant, and equipment). The Schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of Work schedules for completion by any given date

- during the period. If the Contractor fails to submit a schedule within the time prescribed, the Owner/Engineer may withhold approval of progress payments until the Contractor submits the required schedule.
2. The Contractor shall enter the actual progress on the chart at the end of each month during the construction period and upon doing so shall immediately deliver 3 copies of the annotated schedule to the Owner/Engineer.
 3. If the Contractor falls behind the progress schedule, the Contractor shall take such steps as may be necessary to improve the progress. Such steps may include increasing the number of shifts, overtime operations, days of work, amount of construction plant, or all of them, and to submit for review any supplementary schedule or schedules in chart form necessary to demonstrate the manner in which the agreed rate of progress will be regained, all without additional cost to the Owner.
 4. Failure of the Contractor to prosecute the Work with sufficient diligence to ensure completion within the time specified in the Contract, or failure of the Contractor to take necessary steps to improve the Contractor's progress should it fall behind the Contractor's schedule shall be grounds for the Owner to terminate the Contractor's right to proceed with the Work, or any separate part of it, in accordance with the terms of the Contract.
 5. A schedule of Shop Drawing submissions acceptable to the Engineer as providing a workable arrangement for processing the submissions.
 6. A schedule of values for all of the work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. the schedule of values must be acceptable to the Engineer as to form and substance.
 7. The Contractor shall also submit a schedule of payments that the Contractor anticipates the Contractor will earn during the course of the Work.

ARTICLE 3 - DOCUMENTS: INTENT, REQUIREMENTS, REUSE

SC-3.01 Intent

- A. Insert the following new paragraphs under Article 3.01:
 - B. The Contract Documents comprise the entire Agreement between the Owner and the Contractor concerning the Work.
 - C. When words which have a well-known technical or trade meaning are used to describe the Work, materials or equipment, such words shall be interpreted in accordance with that meaning.
 - D. In case of conflict between the Drawings and Specifications, the Specifications shall govern unless specifically noted to the contrary in the Drawings. Figure dimensions on Drawings shall govern over scale dimensions, and detailed drawings shall govern over General Drawings.

ARTICLE 4 - COMMENCEMENT AND PROGRESS OF THE WORK

Not applicable.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

SC-5.01 Availability of Lands

A. Add the following new paragraph under Article 5.01:

- D. All land required for this Project is presently owned by the Owner or is under condemnation. The limits of ownership are shown on the Drawings. Easements for pipelines have been obtained by the Owner or are under condemnation. Easement widths are shown on the Drawings.

SC-5.03 Subsurface and Physical Conditions

A. Delete paragraphs 5.03.A and 5.03.B in their entirety and insert the following:

- A. No reports of explorations or tests of subsurface conditions at or adjacent to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to Owner.

SC-5.04 Differing Subsurfaces or Conditions

A. Add the following paragraphs:

E. Damages

1. Repair to existing utilities and facilities damaged by the Contractor's construction forces shall be considered as a part of the Contract covered only by the prices bid for the new construction. The only exceptions to this provision, wherein extra compensation will be authorized, are:
 - a. Relocation of an existing facility due to direct conflict with the new pipeline.
 - b. Relocation (outside of limits of maximum allowable trench widths) of an existing facility presently located within the bounds of maximum allowable trench width, where necessitated for assurance against future damage due to settlement or to permit reasonable access to the new work.
2. Repair to damaged underground utilities, whether reimbursable or otherwise, must meet the requirements of the agency in charge of that particular utility.
3. The intent of this article is to assure compensation to the Contractor for changes in existing utilities reasonably necessary, and at the same time, to protect the Owner against excessive damages due to carelessness of the Contractor's construction forces.
4. Compensation for extra work covered herein shall be in accordance with other provisions of the general conditions.

SC-5.05 Underground Facilities

A. Add the following paragraphs:

- F. The layout of the work shall be the responsibility of the Contractor and shall be subject to checking by the Engineer. The Engineer shall establish base lines and a system of bench levels for the Contractor's use as required. All instruments, stakes, barricades, traffic signs, flags, and other materials necessary, and personnel needed for establishing and marking lines, grades, and structure location during construction, shall be the responsibility of the Contractor.

The Contractor's personnel engaged in the layout work described herein and the aides furnished to the Engineer shall be fully capable of performing the duties set out herein and shall be fully qualified for the work required.

1. Sewer Lines

The Engineer will provide geometric base data for the Contractor's use in locating sewers and facilities in the design location. The locations for vertical control (bench marks) are shown on the Drawings with elevation and description duly noted. Each manhole, pumping station, wetwell or other notable sewage system component shall have the coordinates shown at the individual locations or listed with the General Notes of the Drawings. It shall be the Contractor's responsibility to locate the new facilities in their intended position using survey grade GPS survey equipment. It shall also be the Contractor's responsibility to provide offset hubs at each manhole or such reference points as may be required to maintain the location of each new installation.

Where the Contractor elects to use grade (batter) boards for sewer construction, offset line, and grade stakes shall be set and cut sheets prepared before trenching work is started. All stakeout work and cut sheet preparation shall be accomplished by the Contractor, the Engineer being responsible review and checking the finished cut sheets. The Contractor shall provide all material, equipment, and labor for all stakeout work. Cut sheets, where required, shall be prepared on forms supplied by the Engineer (HKB Form 404-4).

The cut sheets shall contain the following minimum information:

- a. Manhole stations
- b. Grade between manholes
- c. Centerline and offset stations
- d. Amount and direction of offset
- e. Centerline elevation
- f. Centerline cut
- g. Offset elevation
- h. Offset cut
- i. Utilities information and depths and/or any other pertinent information

Where the Contractor elects to use grade (batter) boards for sewer construction, offset line shall be set perpendicular to each 25 foot centerline station. Where laser beam equipment is to be used, the offset line shall be as required for the specific type of laser equipment used. In either case, the Contractor shall be required to maintain at least the offsets at manholes until the sewer main has been constructed.

Where paving or curbs and gutters are existing or where line and grade stakes have been established for same, the Contract shall determine the elevation of and construct the manholes to the height of the adjacent facilities either existing or proposed. Where paving curbs and gutters or stakes are not existing, the Contractor shall construct the manholes to the height determined by the Engineer.

The Contractor shall furnish all materials required for layout by the Contractor's forces. The Contractor shall furnish all labor and equipment for clearing underbrush, weeds, etc., prior to staking of the sewers.

2. Water, Gas, and Sewage Force Mains

Trench line stations will be set by the Contractor ahead of trenching. These will be set at least every 100 feet of pipeline and at the locations of all pipeline accessories.

SC-5.06 Delete Paragraphs 5.06.A and 5.06.B in their entirety and insert the following:

- A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.
- B. Not Used.

ARTICLE 6 – BONDS AND INSURANCE

SC-6.03 Contractor's Insurance

- A. Add the following new paragraph immediately after Paragraph 6.03.J:
 - K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:
 - 1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

State:	Statutory
Federal, if applicable (e.g., Longshoreman's):	Statutory
Jones Act coverage, if applicable:	
Bodily injury by accident, each accident	\$500,000
Bodily injury by disease, aggregate	\$500,000
Employer's Liability:	
Bodily injury, each accident	\$500,000
Bodily injury by disease, each employee	\$500,000
Bodily injury/disease aggregate	\$500,000
Foreign voluntary worker compensation	Statutory

2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

General Aggregate	<u>\$2,000,000</u>
Products - Completed Operations Aggregate	<u>\$2,000,000</u>
Personal and Advertising Injury	<u>\$1,000,000</u>
Each Occurrence (Bodily Injury and Property Damage)	<u>\$1,000,000</u>

3. Automobile Liability under Paragraph 6.03.D. of the General Conditions:

Bodily Injury:

Each person	<u>\$1,000,000</u>
Each accident	<u>\$1,000,000</u>

Property Damage:

Each accident	<u>\$1,000,000</u>
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OR

Combined Single Limit of	<u>\$1,000,000</u>
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4. Excess or Umbrella Liability:

Per Occurrence	<u>\$2,000,000</u>
General Aggregate	<u>\$5,000,000</u>

5. Contractor's Pollution Liability

Each Occurrence	\$ _____
General Aggregate	\$ _____

If box is checked, Contractor is not required to provide Contractor's Pollution Liability insurance under this Contract

6. Additional Insureds: In addition to Owner and Engineer, include as additional insureds the following:

Barkley Lake Water District (Client—List)

Bell Engineering

7. Contractor's Professional Liability

Each Claim \$2,000,000

Annual Aggregate \$2,000,000

SC-6.05 Property Insurance

- A. Add the following to the list of requirements in Paragraph 6.05.A, as a numbered item:
14. be subject to a deductible amount of no more than \$2,500.00 for direct physical loss in any one occurrence.
- B. Add the following new subparagraphs after subparagraph 6.05.A.1:
- a. include the interests of Engineer and any other individuals or entities identified herein, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
- b. in addition to the individuals and entities specified, include as additional insureds, the following:
- 1) Engineer
- Bell Engineering
107 Forbes Drive
Hopkinsville, Kentucky 42240
- C. Add the following new subparagraph after subparagraph 6.05.A.1:
- a. In addition to Owner, Contractor, and all Subcontractors, include as insureds the following:
None.
- D. Add the following to the list of items in Paragraph 6.05.A, as numbered items:
15. include for the benefit of Owner loss of profits and soft cost coverage including, without limitation, fixed expenses and debt service for a minimum of 12 months with a maximum deductible of 30 days, plus attorneys fees and engineering or other consultants' fees, if not otherwise covered;
16. include, in addition to the Contract Price amount, the value of the following equipment and materials to be installed by the Contractor but furnished by the Owner or third parties: None.
17. include by express endorsement coverage of damage to Contractor's equipment.

- E. Delete the first sentence of Paragraph 6.05.A and insert the following sentence in its place:
Owner shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations).
- F. Add the following subparagraphs to Article SC-6.05:
 - G. Where work involves railroad rights-of-way, the Contractor shall purchase and maintain at the Contractor's expense for the full contract Period or as required, Railroad Protective Insurance in an amount acceptable to the railroad company.
 - H. On federally funded projects, the Contractor shall purchase and maintain at the Contractor's expense for the full Contract Period or as required, flood insurance where the Project is in a designated flood hazard area in which federal flood insurance is available.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

SC-7.01 Supervision and Superintendence

- A. Following paragraph 7.01.B, add a new paragraph C as follows:
 - C. The Contractor shall at all times be responsible for the conduct and discipline of his employees and/or any Subcontractor or persons employed by the Subcontractor. All workmen must have sufficient knowledge and skill and experience to perform properly the work assigned to them. Any superintendent, foreman, or workman employed by the Contractor or Subcontractor who does not perform his work in a skillful manner or acts in an incompetent, disorderly, or intemperate manner shall, at the written request of the Owner, be discharged immediately.

SC-7.02 Labor; Working Hours

- A. Amend the first and second sentences of Paragraph 7.02.B to state "...all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on any legal holiday."
- B. Following Paragraph 7.02.B, add a new Paragraph C as follows:
 - C. Contractor shall be responsible for the cost of any overtime pay or other expense incurred by the Owner for Engineer's services (including those of the Resident Project Representative, if any), Owner's representative, and construction observation services, occasioned by the performance of Work on Saturday, Sunday, any legal holiday, or as overtime on any regular work day. If Contractor is responsible but does not pay, or if the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

SC-7.03 Services, Materials, and Equipment

- A. Add the following new paragraphs after paragraph 7.03.C:
 - D. Any equipment damaged or which has been subjected to possible damage by reason of inundation, improper storage and/or protection during the construction period of a project, shall be handled only as follows:
 - 1. Be replaced with new equipment.

2. With approval of the Engineer, be returned to the manufacturer of the equipment, or his authorized repair agency, for inspection and repair provided; however, that such repair after inspection will place the equipment in new condition, and restore the manufacturer's guarantee the same as for new equipment.
 3. This is particularly applicable to, but not limited to, electric motors, motor controls, meter and gauges, and equipment with bearings.
- E. Materials, supplies, and equipment shall be in accordance with samples submitted by the Contractor and accepted by the Engineer.
- F. Materials, supplies, or equipment to be incorporated into the Work shall not be purchased by the Contractor or the Subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.
- G. The use of second hand and/or salvaged materials will not be permitted unless specifically provided for in the detailed Specifications. Materials and equipment shall be new when turned over to the Owner.
- H. All materials and/or equipment to be removed from existing structures and not specifically specified to be reused shall remain the property of the Owner. Such materials and/or equipment shall be stored by the Contractor on sites as directed by the Owner.

SC-7.12 Safety and Protection

- A. The Contractor is required to inquire with the Owner and obtain a copy of any and all safety programs the Owner has.

SC-7.16 Shop Drawings, Samples, and Other Submittals

- A. Add the following to the existing paragraph 7.16.B.3:

No portion of the work requiring a shop drawing, working drawing, sample, or catalog data shall be started nor shall any materials be fabricated or installed prior to the review or qualified review of such item. The Owner will not be liable for any expense or delay due to corrections or remedies required to accomplish conformity.

- B. Add the following to the existing paragraph 7.16.A.2:

The certification statement shall include the following information: contract name, contract number, submittal number, contractor's name, contractor's signature (original, not initialed), date, and reference to meeting the obligations required under Article 7.16.A.

- C. Add the following new paragraphs under Article 7.16.A:

4. Shop drawing submittals shall contain:

- a. The date of submission and the dates of any previous submissions.
- b. The project title, contract number, and submittal number.
- c. Contractor identification.
- d. The names of:
 - (1) Contractor
 - (2) Supplier
 - (3) Manufacturer

- e. Identification of the product, with the Specification section number.
 - f. Field dimensions, clearly identified as such.
 - g. Relation to adjacent or critical features of the work or material.
 - h. Applicable standards, such as ASTM, or federal Specification numbers.
 - i. Identification of deviations from Contract Documents.
 - j. Identification of revisions on resubmittals.
 - k. An 8-inch x 3-inch blank space for Contractor's and Engineer's stamps.
 - l. Critical path notation as required.
5. Coordination of Submittal Times
- a. The Contractor shall prepare and transmit each submittal sufficiently in advance of performing the related Work or other applicable activities, or within the time specified in the individual Work section of the Specifications, so that the installation will not be delayed by processing times, including disapproval and resubmittal (if required), coordination with other submittals, testing, purchasing, fabrication, delivery, and similar sequenced activities.
- D. Add the following new subparagraph under paragraph 7.16.E:
- 2. The Contractor shall bear the cost for review and processing of shop drawings after the second resubmittal.

ARTICLE 8 – OTHER WORK AT THE SITE

SC-8.02 Not used.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

SC-9.13 Not used.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

SC-10.01 Owner's Representative

- A. Add a new paragraph B under existing paragraph 10.01.A:
 - B. Limit of Liability of Public Officials and Owner's Agents
 - 1. In carrying out any of the provisions of the Contract or in exercising any power or authority to him thereby, there shall be no personal liability upon the Engineer or the Owner's other authorized assistants or employees, it being understood that in such matters they act as the agents and representatives of the Owner.

SC-10.03 Project Representative

- A. Add the following new paragraphs immediately after Paragraph 10.03.A:
 - B. The Resident Project Representative (RPR) will be Engineer's representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions.

1. General: RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.
2. Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.
3. Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings, and prepare and circulate copies of minutes thereof.
4. Liaison
 - a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
 - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
 - c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
5. Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
6. Shop Drawings and Samples
 - a. Record date of receipt of Samples and Contractor-approved Shop Drawings.
 - b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
 - c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.
7. Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, if any, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
8. Review of Work and Rejection of Defective Work
 - a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress is defective, will not produce a completed Project that conforms generally to the Contract Documents, or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that

RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

9. Inspections, Tests, and System Startups

- a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
- b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems startups.

10. Records

- a. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.
- b. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
- c. Maintain records for use in preparing Project documentation.

11. Reports

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the Progress Schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, force majeure or delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.

12. Payment Requests: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the Schedule of Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

13. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

14. Completion

- a. Participate in Engineer's visits to the Site to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of a punch list of items to be completed or corrected.
- b. Participate in Engineer's final visit to the Site to determine completion of the Work, in the company of Owner and Contractor, and prepare a final punch list of items to be completed and deficiencies to be remedied.
- c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the notice of acceptability of the work.

C. The RPR shall not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work.
5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

SC-13.01 Cost of the Work

A. Delete Paragraph 13.01.B.5.c in its entirety and insert the following in its place:

c. Construction Equipment and Machinery

- 1) Rentals of all construction equipment and machinery, and the parts thereof, 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.
- 2) Costs for equipment and machinery owned by Contractor will be paid at a rate shown for such equipment in the *Green Book* compiled and distributed by Associates Equipment Distributors, 615 West 22nd Street, Oak Brook, Illinois 60523. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs. Costs will include the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling,

and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, shall cease to accrue when the use thereof is no longer necessary for the changed Work. Equipment or machinery with a value of less than \$1,000 will be considered small tools.

SC-13.03 Unit Price Work

- A. Delete Paragraph 13.03.E in its entirety and insert the following in its place:
- E. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:
1. if the extended price of a particular item of Unit Price Work amounts to 5 percent or more of the Contract Price (based on estimated quantities at the time of Contract formation) and the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and
 2. if there is no corresponding adjustment with respect to any other item of Work; and
 3. if Contractor believes that Contractor has incurred additional expense as a result thereof, Contractor may submit a Change Proposal, or if Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, Owner may make a Claim, seeking an adjustment in the Contract Price.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

SC-15.01 Progress Payments

- A. In Paragraph 15.01.D, change “Ten days” to “Ten business days (or longer if required by the funding agency).”

SC-15.03 Substantial Completion

- A. Add the following new subparagraph to Paragraph 15.03.B:
1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, shall be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

ARTICLE 19 FEDERAL REQUIREMENTS

SC-19.01 Add the following language as Paragraph 19.01 with the title “Agency not a Party”.

- A. **This Contract is expected to be funded in part with funds provided by Agency. Neither Agency, nor any of its departments, entities, or employees is a party to this Contract.**

SC-19.02 Add the following sections after Article 19.01 with the title “Contract Approval”:

- A. **Owner and Contactor will furnish Owner’s attorney such evidence as required so that the Owner’s attorney can complete and execute the following “Certificate of Owner’s Attorney” (Exhibit F) before Owner submits the executed Contract Documents to Agency for approval.**

SC-19.03 Add the following language after Article 19.02.B with the title "Conflict of Interest & Gratuities":

Contractor may not knowingly contract with a supplier or manufacturer if the individual or entity who prepared the plans and specifications has a corporate or financial affiliation with the supplier or manufacturer. Owner's officers, employees, or agents shall not engage in the award or administration of this Contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when: (i) the employee, officer or agent; (ii) any member of their immediate family; (iii) their partner; or (iv) an organization that employs, or is about to employ, any of the above, has a financial interest in Contractor. Owner's officers, employees, or agents shall neither solicit nor accept gratuities, favors, or anything of monetary value from Contractor or Subcontractor.

SC-19.04 Add the following language after Article 19.03.A. with "Gratuities"

- A. If Owner finds after a notice and hearing that Contractor, or any of the Contractor's agents or representatives offered or gave gratuities (in the form of entertainment, gifts, or otherwise) to any official, employee, or agent of Owner or Agency in an attempt to secure this Contract or favorable treatment in awarding, amending, or making any determinations related to the performance of this Contract, Owner may, by written notice to Contractor, terminate this Contract. Owner may also pursue other rights and remedies that the law or this Contract provides. However, the existence of the facts on which Owner bases such findings shall be an issue and maybe reviewed in proceedings under the dispute resolution provisions of this Contract.
- B. In the event this Contract is terminated as provided in Article 19.04.A, Owner may pursue the same remedies against Contractor as it could pursue in the event of a breach of Contract by Contractor. As a penalty, in addition to any other damages to which it may be entitled by law, Owner may pursue exemplary damages in an amount (as determined by Owner) which shall not be less than 3 nor more than 10 times the costs Contractor incurs in providing any such gratuities to any such officer or employee.

SC-19.05 Add the following language after Article 19.04 as Article 19.05 with the title "Small, Minority, and Women's Businesses":

- A. Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms. If Contractor intends to let any subcontracts for a portion of the Work, Contractor must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. Affirmative steps must include:
 - (1) Placing qualified small minority and women's businesses on solicitation lists;
 - (2) Assuring that small, minority, and women's businesses are solicited whenever they are potential sources;
 - (3) Dividing total requirements, when economically feasible, into small tasks or quantities to permit maximum participation of small, minority, and women's businesses;
 - (4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, women's business enterprises;
 - (5) Using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce.

SC-19.06 Add the following language after Article 19.05 as Article 19.06 with the title “Anti-Kickback”:

- A. Contractor shall comply with the Copeland Anti-Kickback Act (40 USC 3145) as supplemented by Department of Labor regulations (29 CFR Part 3, “Contractors and Subcontractors on Public Buildings or Public Works Financed in Whole or in Part by Loans or Grants of the United States”). The Act provides that Contractor or Subcontractor shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public facilities, to give up any part of the compensation to which they are otherwise entitled. Owner shall report all suspected or reported violations to Agency.

SC-19.07 Add the following language after Article 19.06 as Article 19.07 with the title “Clean Air Act (42 USC 7401-7671q) and the Federal Pollution Control Act (33 USC1251-1387), as amended”:

- A. Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act and the Federal Water Pollution Control Act. Violations must be reported to the federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

SC-19.08 Add the following language after Article 19.07 as Article 19.08 with the title “Equal Opportunity Requirements”:

- A. The Contract is considered a federally assisted construction contract. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of “federally assisted construction contract” in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, “Equal Employment Opportunity” (30 FR 12319, 12935, 3 CFR Part, 1964-1965 (Comp., p. 339), as amended by Executive Order 11375, “amending executive Order 11246 Relating to Equal Employment Opportunity,” and implementing regulations at 41 CFR Part 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.”

SC-19.09 Add the following language after Article 19.08 as Article 19.09 with the title “Byrd Anti-Lobbying Amendment (31 USC 1352)”:

- A. Contractors that apply for a bid for award exceeding \$100,000 must file the required certification (RD Instruction 1950Q, Exhibit A-1). The Contractor certifies to the Owner and every subcontractor certifies to the contractor 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 an agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with obtaining the Contract if it is covered by 31 USC 1352. The Contract and every subcontractor must also disclose any lobbying with non-federal funds that takes place in connection with obtaining federal award. Such disclosures are forwarded from tier to tier up to the Owner. Necessary certification and disclosure forms shall be provided by Owner.

SC-19.10 Add the following language after Article 19.09 as Article 19.10 with the title “Environmental Requirements”:

When constructing a Project involving trenching and/or other related each excavation, Contractor shall comply with the following environmental conditions:

- A. Wetlands—When disposing of excess, spoil, or other construction materials on public or private property, Contractor shall not fill in or otherwise convert wetlands.
- B. Floodplains—When disposing of excess, spoil, or other construction materials on public or private property, Contractor shall not fill in or otherwise concert 100-year floodplain areas (Standard Flood Hazard Area) delineated on the latest Federal Emergency Management Agency Floodplain Maps, or other appropriate maps, E.G. alluvial soils on NRCS Soul Survey Maps.
- C. Historic Preservation—Any excavation by Contractor that uncovers an historical or archaeological artifact or human remains shall immediately report to the Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the State Historic Preservation Officer (SHPO).
- D. Endangered Species—Contractor shall comply with the Endangered Species Act, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or other threatened species or their critical habitat be brought to the attention of Contractor, Contractor will immediately report this evidence to Owner and representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the U.S. Fish and Wildlife Service.
- E. Mitigation Measures—The following environmental mitigation measures are required on this Project: *(Insert mitigation measures here.)*

SC-19.11 Add the following language after Article 19.10 as Article 19.11 with the title “Contract Work Hours and Safety Standards Act (40 USC 1701-3708)”:

- A. Where applicable, for contracts awarded by Owner in excess of \$100,000 that involve employment of mechanics or laborers, the Contractor must comply with 40 USC 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR, Part 5). Under an USC 3702 of the Act, the Contractor must compute the wages of every mechanic and laborer on the basis of standard work week of 40 hours in the work week. The requirements of 40 USC 3704 are applicable in construction 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 transmittal of intelligence.

SC-19.12 Add the following language after Article 19.11 as Article 19.12 with the title “Debarment and Suspension (Executive Orders 12549 and 12689)”:

- A. A contract award (see 2 CFR 180.220) must not be made to parties listed on the government wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp. p. 189) and 12689 (3 CFR Part 1989 Cop., p. 235), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory other than Executive Order 12549.

SC-19.13 Add the following language after Article 19.12 as Article 19.13 with the title “Procurement of Recovered Materials”:

- A. The Contractor must comply with 2 CFR Part 200.322, “Procurement of Recovered Materials.”

SECTION 00815

**LABOR REGULATIONS ON PUBLIC WORKS
KENTUCKY PROJECTS**

- A. All Public Works Projects submitted for bids and constructed by a Public Authority in the State of Kentucky are subject to the provisions of the Kentucky Revised Statutes, Chapter 337, entitled Wages and Hours as may be amended from time to time. Contractors submitting Bids for the specified project must consider the fact that in the event of an award it shall be his responsibility to comply with all aspects of the statutory requirements contained therein while engaged upon the project covered by these Specifications.
- B. If the Project to which these Specifications apply is funded in whole or in part by a federal grant or loan program whereby the U.S. Department of Labor is required to prescribe predetermined prevailing minimum wages, compliance with the currently applicable federal labor regulations is required.
- C. Prior to the scheduled date for receipt of construction Bids, where federal funds are involved, a determination of the prevailing rate of wages will be obtained from the U.S. Department of Labor and issued in the form of an addendum to these Specifications to each of the known prospective Bidders. The addendum shall become a part of the Contract Specifications. The rates so determined shall be the minimum hourly rate of wages to be paid to all laborers, workmen, mechanics, helpers and apprentices performing Work under this Project covered by these Specifications.
- D. On federally funded projects, weekly payroll data for all the CONTRACTOR and Subcontractor employees must be furnished monthly to the Federal agency designee or as may be prescribed by the agency at a preconstruction conference. While weekly wage data reports are not required to be filed with the Kentucky Department of Labor on Federally assisted projects, one copy of the report must be filed with the OWNER and be available at the Public Authority's (OWNER) office for inspection by the Kentucky Department of Labor. The prime CONTRACTOR is responsible for payroll reporting compliance by all his Subcontractors.
- E. Federal labor regulations applicable to the Project for which these Specifications are applicable shall be those established by the Federal agency involved (if any). The CONTRACTOR and Subcontractor performing the Work under this Project must fulfill all requirements of the presently effective labor legislation and Executive Orders as listed below and any other Federal labor regulations which may be or may become applicable.
 - 1. "Anti-Kickback" Act, Copeland Act
 - 2. Contract Work Hours Standard Act - Overtime Compensation
 - 3. Non Discrimination - Civil Rights Act

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4. Equal Employment Opportunity - Executive Orders 11246 and 11375
5. Elimination of segregated facilities
6. Certification of nonsegregated facilities

END OF SECTION

00815-2

SECTION 00820

SPECIAL CONDITIONS

1. DESCRIPTION OF THE WORK; DESIGNATION OF OWNER AND ENGINEER

1.1 These Specifications and the accompanying Drawings describe the work to be done and the materials to be furnished for the construction of Contract 586-24-01, Lakeside Area Water Line Replacement, Barkley Lake Water District, Trigg County, Kentucky.

1.2 All references to the OWNER in these Specifications, Contract Documents and Drawings shall mean the Barkley Lake Water District.

1.3 All references to the ENGINEER in these Specifications, Contract Documents and Drawings shall mean Bell Engineering.

2. AVAILABLE FUNDS

2.1 The attention of all Bidders is directed to the fact that funds will be made available for the award this Contract from the following sources:

Drinking Water State Revolving Fund (DWSRF), Clean Water Program, and local funds.

3. TIME OF COMPLETION

3.1 The time allowed for completion of this Contract and/or portions thereof is as follows:

365 days	Substantial Completion
365 days	Final Completion

3.2 The time allowed for completion shall begin at midnight, local time, 10 calendar days from the date on which the OWNER, or his authorized representative, the ENGINEER, shall instruct the CONTRACTOR in writing to start work. In case of awarding more than one Contract to a CONTRACTOR, periods of construction are not additive, but will run concurrently. The same applies to divisions within a Contract.

4. LIQUIDATED DAMAGES

4.1 It is understood that time is of the essence of this Contract, and that the OWNER will sustain damages, monetary and otherwise, in the event of delay in completion of the work hereby contracted.

4.2 Therefore, if the said CONTRACTOR shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the OWNER, then the CONTRACTOR does hereby agree, as a part consideration for the awarding of this Contract, to pay to the OWNER the amount specified in the Contract, not as a penalty but as liquidated damages for such breach of Contract

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as hereinafter set forth, for each and every calendar day that the CONTRACTOR shall be in default after the time stipulated in the Contract for completing the work.

4.3 The said amount is fixed and agreed upon by and between the CONTRACTOR and the OWNER because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the OWNER would in such event sustain, and said amount is agreed to be the amount of damages which the OWNER would sustain and said amount shall be retained from time to time by the OWNER from current periodical estimates.

4.4 Liquidated damages are fixed at the following amounts per calendar day of overrun beyond the date set for completion or authorized extension thereof for each of the Contracts, divisions, sections, or combinations thereof:

Contract 586-24-01 - \$750.00 per calendar day

5. METHOD OF BIDDING

5.1 The work under this Contract shall be bid by unit price and/or lump sum as provided for in the Form of Proposal. This Contract shall be bid in full on the form provided.

5.2 The CONTRACTOR must bid all divisions and all listed unit price items and/or lump sums to complete a Contract. The OWNER will not award the work on divisions or sections within a Contract separately. Each Contract shall be bid separately and in full on the Form of Proposal provided.

5.3 The OWNER reserves the right, should financing considerations require or allow, to delete or add physical units to the unit price items bid. However, the monetary value of such deletions or additions shall not exceed 25 percent of the total amount bid for the Contract without specific approval of the CONTRACTOR.

5.4 If deletions or additions are made, comparison of bids will be made on the basis of portions of the Contract to be awarded and not on the total of the base bid made by the CONTRACTOR.

6. VIDEOTAPING

6.1 Continuous videotaping of preconstruction surface conditions is required for this Contract. All taping and reproduction must be completed before any construction activity will be allowed. Recording must be performed by persons experienced with this type equipment and must be acceptable to the ENGINEER. Recording equipment used shall utilize standard DVD format discs.

6.2 The video recording shall be supplemented with continuous audio description of the area traversed. Verbal description of problem areas and items of special interest shall be elaborated upon.

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6.3 All locations, streets, and/or easements on or in which construction activity will occur shall be recorded for the complete length or boundary of the construction area.

6.4 An index shall be furnished for each DVD coordinating the location of the recorded area with the location of the proposed facilities as shown on the Drawings.

6.5 The CONTRACTOR shall be responsible for providing access to all areas to be recorded. All DVDs shall be viewed by the ENGINEER before any construction is started. The CONTRACTOR shall provide DVD viewing equipment for the duration of the project.

6.6 The cost of preconstruction audio/video recording shall be at no additional cost to the OWNER, the cost being incorporated into the CONTRACTOR's unit price or lump sum bid for the items of work as listed on the Form of Proposal.

6.7 The CONTRACTOR is also urged to document on video any structure within a reasonable distance of his blasting or other work operations for reference and file.

6.8 Digital color print still photographs shall be used to supplement the continuous video recording of preconstruction conditions and/or pertinent construction items.

6.9 Any photographs or audio/video recordings required by governing agencies will be the responsibility of the OWNER.

6.10 The CONTRACTOR shall submit to the ENGINEER a number of copies of these documentation media in accordance with the Contract Documents.

6.10.1 Video recordings on DVD-R format discs shall be submitted in a quantity greater than or equal to 6 copies.

6.10.2 Digital still photographs on DVD-R or CD-R format discs shall be submitted in a quantity greater than or equal to 6 copies.

7. MINIMUM WAGE RATES

7.1 The prevailing minimum wage rates, if applicable, have not at this time been determined by the governing agencies. However, before bids are received, applicable rates will be determined and issued in the form of an addendum to these Specifications.

8. SALES AND USE TAX

8.1 See Specification Section C-700, Article 7.09, for instructions.

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9. EXCAVATION

9.1 It is to be specifically noted that no separate payment for solid rock excavation will be made under this Contract. All excavation shall be considered unclassified, and payment for same included in the appropriate trench and backfill, furnishing and laying, or other items containing excavation.

10. PERMISSION TO USE PROPERTY OTHER THAN THAT PROVIDED BY OWNER

10. Should the CONTRACTOR desire or elect to use, pass over, and/or encroach on private property other than that provided by the OWNER, either by fee simple title or right-of-way for a specific purpose, he shall obtain such rights and permission from the individual property owner at his own expense and risk.

11. EXTRA FILL MATERIAL

11.1 Extra fill material required to complete the finished grading to the line and grade shown on the Drawings shall be obtained by the CONTRACTOR at no extra cost to the OWNER above that included in his lump sum bid.

12. SURFACE RESTORATION RETAINAGE

12.1 In the case of water mains, there will be retained from each monthly payment estimate from the unit prices for "Furnishing, Trenching, Laying and Backfilling" an amount of \$3.00 per foot of each applicable line size and length. Upon completion of clean-up work satisfactory to the ENGINEER, this retainage will be paid on the subsequent periodic payment estimate.

13. USE OF SPECIALS IN VERTICAL PLANE OPTIONAL

13.1 Where specials (fittings) are shown at change in grade of pipeline, the CONTRACTOR, at his option, may use fittings as shown with blocking, or he may, where possible without exceeding maximum allowable deflection in pipe joints, avoid the use of specials at grade changes, by increasing the trench depth, provided the pipe installed to such extra depth is designed to withstand the extra depth cover and the maximum internal pressure specified. No additional compensation will be given for installing the pipe at an extra depth to avoid the use of fittings and thrust blocking.

14. ACCESS TO THE WORK

14.1 The representatives of the Barkley Lake Water District, Bell Engineering, the Kentucky Division of Water (KYDOW), Kentucky Transportation Cabinet (KYTC), and all funding agencies shall have access to the work wherever it is in preparation or progress, and the CONTRACTOR shall provide proper facilities for such access and inspection.

15. BLASTING AND PREBLAST SURVEYS

15.1 No blasting is allowed on this Project.

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16. PROJECT SIGNS

16.1 The CONTRACTOR shall furnish and install a total of 2 project signs per details shown in Specifications or as shown in the set of Drawings. One of each sign at start of project and one of each sign at end of project. Locations to be field determined by OWNER and funding agencies.

17. TRAFFIC CONTROL

17.1 The CONTRACTOR shall be responsible for complying with appropriate temporary traffic control as described in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).

17.2 It shall be the responsibility of the CONTRACTOR to advise the KYTC District Public Information Officer and local media of the location (including milepoints) and duration of any proposed lane closures, a minimum of 3 days prior to the closure.

17.3 Call the KYTC District Public Information Officer current assigned to that district's office.

18. FUNDING AGENCY CONDITIONS

18.1 Funding agency special or supplemental conditions are included as a separate section, Section 00830.

END OF SECTION

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SECTION 00830

FUNDING AGENCY SPECIAL CONDITIONS

The following section of these Specifications is an additional condition of the Contract and supplements the Contract Documents. The more stringent condition shall govern in the case of conflict with those applicable conditions in the “white” sections of this document.

00830-1

SUPPLEMENTAL GENERAL CONDITIONS

FOR

CLEAN WATER STATE REVOLVING FUND

DRINKING WATER STATE REVOLVING FUND

(Drinking Water and Wastewater)

Project Name: Lakeside Area Water Line Replacement

Project Number: F23-002

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, or 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 an 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 kyptacinfo@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

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

Date of Issuance:

Effective Date:

Owner:

Owner's Contract No.:

Contractor:

Contractor's Project No.:

Engineer:

Engineer's Project No.:

Project:

Contract Name:

The Contract is modified as follows upon execution of this Change Order:

Description:

Attachments: *[List documents supporting change]*

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES <i>[note changes in Milestones if applicable]</i>
Original Contract Price: \$ _____	Original Contract Times: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
[Increase] [Decrease] from previously approved Change Orders No. ___ to No. ___: \$ _____	[Increase] [Decrease] from previously approved Change Orders No. ___ to No. ___: Substantial Completion: _____ Ready for Final Payment: _____ days
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
[Increase] [Decrease] of this Change Order: \$ _____	[Increase] [Decrease] of this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
Contract Price incorporating this Change Order: \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for Final Payment: _____ days or dates

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: _____ Engineer (if required)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized)
Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____

Approved by Funding Agency (if applicable)

By: _____ Date: _____
Title: _____

SECTION 01500

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 GENERAL

1.01 SANITARY FACILITIES

- A. The CONTRACTOR shall construct and maintain, in a sanitary condition, sanitary facilities for the CONTRACTOR'S employees and also employees of the Subcontractors. The CONTRACTOR shall, at completion of the Contract Work, properly dispose of these sanitary facilities.

1.02 UTILITIES

- A. The obtaining of all utilities for construction, including power and water, shall be the responsibility of the CONTRACTOR, and he shall bear the cost of all utilities used for construction. Cost of all connections and facilities for use of utilities shall be borne by the CONTRACTOR.

1.03 MAINTENANCE OF SERVICE IN EXISTING UTILITIES

- A. Where the existing utilities, including in-plant process piping and plant water piping, must be disturbed during construction under this Contract, their operation and function shall be maintained by the CONTRACTOR to such a degree that service to customers will be interrupted for minimum time periods only. Such disturbances and any maintenance use of these lines shall constitute no cost to the OWNER. **The OWNER shall be notified of interruptions in sufficient time to prepare for them and shall agree to the hour, date, and duration of them before they are undertaken.**
- B. Should shutdowns in service be in excess of the time of duration agreed upon, and such excessive shutdown time be due to the CONTRACTOR's negligence, faulty Work and/or inability to perform, then and in that event, the CONTRACTOR shall be held liable to the OWNER for any and all damages that may accrue to the OWNER, by reason of such excessive shutdown periods.
- C. Digging through services with trenching machines will not be permitted. Upon damage to utility services, such services shall be repaired immediately and tested to the satisfaction of the ENGINEER. The CONTRACTOR shall notify all utility users of impending interruption of service and shall be responsible for all damage resulting from same. Payment for necessary disconnection and reconnection of utility services shall be included as a part of the CONTRACTOR'S bid and no extra compensation will be made for same.
- D. The CONTRACTOR shall at all times maintain on hand an adequate supply of repair materials and tools with which to make repair to damaged water, gas and sewer lines. Should the CONTRACTOR inadvertently damage existing utilities, he shall make immediate repair thereto and in no event shall he leave the site before such repair has been made and proven to be successful.

- E. As far as possible, the locations and sizes of existing mains are indicated on the Drawings; however, exact locations, pipe materials and sizes cannot be guaranteed. It shall be the responsibility of the CONTRACTOR to locate and uncover existing lines, to which new mains are to be connected, and provide all connecting fittings of the correct size and type for each connection. Payment for the above shall be included in the unit price bid for each item used for the connection as indicated on the Drawings or as specified.
- F. Where existing structures and equipment at the treatment plant or station are disturbed during construction under this Contract, their operation and function shall be maintained by the CONTRACTOR to such degree that the treatment process will not be impaired. Such maintenance shall constitute no extra cost to the OWNER.

1.04 PROPERTY PROTECTION

- A. Care is to be exercised by the CONTRACTOR in all phases of construction, to prevent damage and/or injury to the OWNER's and/or other property. Payments for the repair and restoration are limited as set forth in "Conflict With or Damage to Underground Facilities" of the Supplementary General Conditions.
- B. The CONTRACTOR shall avoid unnecessary injury to trees and shall remove only those **authorized** to be removed by written consent of the OWNER. Fences, gates, and terrain damaged or disarranged by the CONTRACTOR's forces shall be immediately restored in their original condition or better.

1.05 CONSTRUCTION WARNING SIGNS

- A. The CONTRACTOR shall provide construction warning signs for each location where he is working in the State highway right-of-way or in City streets. He will further provide flagmen as required and shall abide by all Kentucky Transportation Cabinet, Department of Highways safety rules, including size, type and placement of construction signs. All signs shall be of professional quality.

1.06 RESIDENT PROJECT REPRESENTATIVE OFFICE

- A. Not required this Contract.

1.07 ACCESS ROADWAYS

- A. The CONTRACTOR shall construct all access roadways needed during construction, and the planned access roadways for the completed project. The CONTRACTOR shall maintain access roadways continuously during the construction period.
- B. The CONTRACTOR shall maintain all existing roadways within the project site which are used for any purpose by his construction operations. The degree and frequency of maintenance shall be adequate to keep existing roadways in a condition at least equal to their condition prior to construction. Road maintenance shall include dust control and grading as necessary.

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1.08 RESPONSIBILITY FOR TRENCH SETTLEMENT

- A. The CONTRACTOR shall be responsible for any settlement caused by the construction that occurs within 1 year after the final acceptance of this Contract by the OWNER. Repair of any damage caused by settlement shall meet the approval of the OWNER.

1.09 DAMAGE TO CROPS, LIVESTOCK AND VEGETATION

- A. The CONTRACTOR shall protect crops, livestock and vegetation against damage or injury from construction operations at all times. Crops damaged or equipment access obtained outside of the easements provided shall be the responsibility of the CONTRACTOR. Temporary fences shall be provided at no extra cost to the OWNER wherever necessary to keep livestock away from the construction area. Ornamental shrubbery and tree branches shall be temporarily tied back, where appropriate, to minimize damage. Damaged limbs shall be trimmed and damaged tree trunks shall be treated with wound dressing.

1.10 WASTE DISPOSAL

- A. The CONTRACTOR shall dispose of waste, including any hazardous waste, off-site in accordance with all applicable laws and regulations.

1.11 CONTRACTOR'S TRAILERS AND MATERIAL STORAGE

- A. The location of the CONTRACTOR'S and Subcontractors' office and work trailers and parking areas on the project site shall be subject to the OWNER's approval.
- B. The location of the CONTRACTOR's and Subcontractors' material storage yards on the project site shall be subject to the OWNER's approval.

1.12 CONSTRUCTION IDENTIFICATION SIGNS

- A. The CONTRACTOR shall furnish and erect project identification signs if such are required by the funding agency.
- B. The CONTRACTOR shall obtain the OWNER'S permission before erecting any construction signs not specifically required by the Contract.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01600

SPECIAL PROVISIONS FOR MATERIAL AND EQUIPMENT

PART 1 GENERAL

1.01 SERVICES OF MANUFACTURERS' REPRESENTATIVE AND OPERATING MANUALS

- A. Bid prices for equipment furnished under this Contract, shall include the cost of written operation and maintenance instructions and the cost of a competent representative of the manufacturers of all equipment to supervise the installation, adjustment, and testing of the equipment and to instruct the OWNER'S operating personnel and the ENGINEER'S representative on operation and maintenance. This supervision and instruction may be divided into two or more time periods as required by the installation program, and shall be scheduled at the convenience of the OWNER.
- B. Unless otherwise specified with the equipment, equipment manufacturers shall provide a minimum of 2 separate repeated training sessions for the OWNER'S staff. Each session shall be at least 2 hours in length, but not more than 4 hours. Manufacturer's agenda and schedule for the training shall be submitted to and approved by the OWNER prior to conducting the training. No training will be scheduled until the equipment has been installed, satisfactorily tested, and is ready for operation.
- C. The manufacturer's representative shall have complete knowledge of the proper installation, lubrication, operation and maintenance of the equipment provided and shall be capable of instructing the representatives of the OWNER and ENGINEER on proper startup, shutdown, online operations, lubrication and preventive maintenance of the equipment. Outlines of lesson plans and proposed training schedule shall be submitted to the ENGINEER for review 30 days prior to the desired instructional period. Specific requirements for furnishing the services of manufacturer's representatives are indicated under detailed Specifications. This work may be conducted in conjunction with Inspection and Testing, whenever possible, as provided under Part 3 of EXECUTION of detailed specification. Should difficulties in operation of the equipment arise due to the manufacturer's design or fabrication, additional services shall be provided at no cost to the OWNER.
- D. A certificate from the manufacturer stating that the installation of the equipment is satisfactory, that the unit has been satisfactorily tested, is ready for operation, and that the operating personnel have been suitably instructed in the operation, lubrication, and care of the unit shall be submitted to the ENGINEER.
- E. For equipment furnished under other Divisions, the CONTRACTOR, unless otherwise specified, shall furnish the services of accredited representatives of the manufacturer only when some evident malfunction or overheating makes such services necessary.

F. Three complete sets of operation and maintenance instructions, covering all equipment furnished under this Contract, shall be delivered directly to the ENGINEER.

1. The manual for each piece of equipment shall be a separate document with the following specific requirements:

a. Contents

Table of contents and index

Brief description of each system and components

Starting and stopping procedures

Special operating instructions

Routine maintenance procedures

Manufacturer's printed operating and maintenance instructions, parts list, illustrations, and diagrams. These shall be specific to the material supplied under the Contract, and not a manufacturer general brochure.

One copy of each wiring diagram

One final accepted copy of each shop drawing and each CONTRACTOR'S coordination and layout drawing

List of spare parts, manufacturer's price, and recommended quantity

Manufacturer's name, address, web site, and telephone number

Name, address, and telephone number of manufacturer's local representative

b. Material

Loose leaf on 60 pound, punched paper

Holes reinforced with plastic, cloth or metal

Page size, 8-1/2 inch by 11-inch

Diagrams and illustrations, attached foldouts as required

Of original quality, reproducible by dry copy method

Covers: oil, moisture, and wear resistant 9 x 12 size

c. Submittals to the ENGINEER

- (1) Two preliminary copies of manuals, no later than 15 days following final review and approval of the shop drawings, for each piece of equipment.

1.02 STORAGE AND HANDLING OF EQUIPMENT

A. Special attention shall be given to the storage and handling of equipment. As a minimum, the procedure outlined below shall be followed:

1. Equipment shall not be shipped until all pertinent shop drawings are reviewed by the ENGINEER.
2. All equipment having moving parts such as gears, electric motors, etc., and/or instruments shall be properly stored until such time as the equipment is to be installed.
3. All equipment shall be stored fully lubricated with oil, grease, etc. unless otherwise instructed by the manufacturer.
4. Manufacturer's storage instructions shall be carefully studied by the CONTRACTOR and reviewed with the ENGINEER. These instructions shall be followed and a written record of this kept by the CONTRACTOR.
5. Moving parts shall be rotated a minimum of once weekly to ensure proper lubrication and to avoid metal-to-metal "welding." Upon installation of the equipment, the CONTRACTOR shall start the equipment, at least half load, once weekly for an adequate period of time to ensure that the equipment does not deteriorate from lack of use.
6. Lubricants shall be changed upon completion of installation and as frequently as required thereafter during the period between installation and acceptance. New lubricants shall be put into the equipment at the time of acceptance.
7. Prior to acceptance of the equipment, the CONTRACTOR shall have the manufacturer inspect the equipment and certify in writing that its condition has not been detrimentally affected by the long storage period. Such certifications by the manufacturer shall be deemed to mean that the equipment is judged by the manufacturer to be in a condition equal to that of equipment that has been shipped, installed, tested and accepted in a minimum time period. As such, the manufacturer will guarantee the equipment equally in both instances. If such a written certification is not given, the equipment shall be judged to be defective. It shall be removed and replaced at the CONTRACTOR'S expense.

B. The OWNER reserves the right to withhold payment for any materials improperly stored and maintained.

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1.03 PARTIAL UTILIZATION

- A. During the course of construction partial occupation and utilization of completed portions of the work may be required.
- B. When deemed necessary, the OWNER or the CONTRACTOR may request use of completed work.
- C. Partial utilization shall be practiced in accordance with the General Conditions.

1.04 EQUIPMENT WARRANTY

- A. The CONTRACTOR shall provide the OWNER a minimum 1 year warranty on all equipment, or a warranty of the length as is specified in the specific equipment section of the Specifications, in accordance with the General Conditions, Section 00700, Articles 13.06 through 13.09. The warranty period for each item of equipment shall be a minimum of 1 year, or as specified otherwise, from the date of the OWNER'S acceptance of the equipment item.

1.05 ADJUSTMENTS AND CORRECTIONS OF EQUIPMENT AND APPURTENANCES DURING OPERATION

- A. Some items of functional nature included in this Contract cannot be tested as to performance and quality at the time of completion of their installation. They must wait for necessary testing and proper performance until such functions are possible during later portions of this Contract. Such testing, specified performance and proper instructions to the OWNER's operators (as to their maintenance and operation) is deemed a portion of this Contract, and payment shall be retained by the OWNER for equipment delivered to the site and for Work completed to cover such service. Such service replacements and performance shall take precedence over expiration of the 1 year guarantee period.
- B. The CONTRACTOR shall expedite the completion of such service by all Suppliers and Subcontractors and shall render competent supervision of such service. The CONTRACTOR shall also expedite the replacement of defective and unaccepted parts and equipment. Unnecessary delay in delivery and installation of corrective parts and equipment may constitute damage to the OWNER for which the CONTRACTOR can be held liable.

END OF SECTION

SECTION 02050
SELECTIVE DEMOLITION

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment, and incidentals required to perform all demolition and removal work as shown on the Drawings and as specified herein. All work shall be carried out in accordance with the Department of Labor regulations and per the following:
 - 1. Occupational and Health Hazards (29 CFR - Part 1910).
 - 2. Safety and Health Regulations for Construction (29 CFR - Part 1518).
 - 3. Any applicable local ordinances or codes.
- B. All materials, piping, fittings, valves and equipment resulting from the demolition shall become the property of the OWNER, unless otherwise noted on the Drawings. These materials shall be stored on the site promptly by the CONTRACTOR for the OWNER.
- C. All removal work shall be carried to the limits necessary for construction of the new work, and as specified herein.

1.02 PROTECTION

- A. Erect barriers, fences, guardrails, enclosures, chutes, and shoring to protect personnel, structures, and utilities remaining intact.
- B. Protection of Existing Work
 - 1. Existing work to remain shall be protected from damage. Work damaged by the CONTRACTOR shall be repaired to match existing work at no additional cost to the OWNER, as directed by the ENGINEER. Provide temporary support and shoring as required for existing materials until new work is installed.
- C. Protection of Utility Lines
 - 1. Existing utility lines that are indicated or the locations of which are made known to the CONTRACTOR prior to demolition work shall be protected from damage. Damaged utility lines shall be repaired as directed by the ENGINEER at no additional cost to the OWNER.
- D. Protection of Personnel
 - 1. Where the safety of personnel is endangered in the area of removal work, barricades for traffic shall be used and advance notice shall be given to the ENGINEER prior to beginning any such work.

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- E. Wherever piping is removed for disposition, adjacent pipe and headers that are to remain in service shall be blanked off or plugged and then anchored in an approved manner.
- F. Use of Saw Cuts and Pneumatic Hammers
 - 1. Saw cuts shall be used wherever applicable. Pneumatic hammers shall only be used with the approval of the ENGINEER.
- G. Use of Explosives
 - 1. Use of explosives will not be allowed for purposes of demolition.
- H. Carry out all demolition work in accordance with the accepted demolition plan and applicable permit requirements.

PART 2 PRODUCTS

None this Section.

PART 3 EXECUTION

3.01 INSPECTION

- A. Verify that the use of the facilities and related equipment to be demolished has been discontinued.
- B. Do not commence work until conditions are acceptable to the ENGINEER.

3.02 PREPARATION

- A. Perform demolition in accordance with the accepted demolition plan, and applicable permit requirements.
- B. Existing Facilities to be Removed (as applicable)
 - 1. Piping: Remove existing piping, valves, meters, fittings, and supports as indicated on the Drawings and terminate with permanent, non-projecting plugs or seals.

3.03 DISPOSAL

- A. Remove demolition debris immediately from site, according to Section C-800, Supplementary Conditions.
- B. Clean up the site in accordance with Section C-800, Supplementary Conditions.
 - 1. Debris and Rubbish Control: Debris and rubbish shall be removed and transported in a manner that will prevent spillage on streets or adjacent areas.

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2. Regulations: Comply with federal, state, and local regulations regarding hauling and disposal.

END OF SECTION

02050-3

SECTION 02110
SITE CLEARING AND GRUBBING

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Furnish all labor and equipment required and perform all clearing, grubbing and stripping of topsoil complete as shown on the Drawings and as specified herein.

1.02 RELATED WORK

- A. Earth and rock work are included in Section 02200.

1.03 SUBMITTALS

- A. None required for this Section.

PART 2 PRODUCTS

None in this Section.

PART 3 EXECUTION

3.01 GENERAL

- A. The proposed building sites, paved areas, areas designated for ditches and channel changes, borrow pits, etc., (except any portions thereof that may be reserved) shall be cleared of all trees, timber, brush, stumps, rubbish and other debris. All this material, unless otherwise specified, shall be removed and disposed of away from the site.
- B. Open burning is not allowed.
- C. Where clearing is to be done, stumps shall be grubbed where embankments are less than 5 feet in height, where the profile indicates excavation, in all areas designated for the construction of other facilities and in borrow areas. In all other areas the stumps may be cut off even with the ground. In areas to be grubbed, all stumps and roots must be removed.
- D. No debris will be allowed to be left under or in the embankments.
- E. In felling trees near tracks, structures and wire lines, necessary precaution must be exercised in order to prevent damage to wire lines, structures, the facilities of others, or obstruct tracks.
- F. No extra payment for clearing and grubbing shall be included in the lump sum bid.

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3.02 TREES

- A. Trees (3-inch caliper and larger) shall not be disturbed by construction without written permission from the OWNER, except in those areas to be cleared. Trees disturbed by construction shall be replaced by the CONTRACTOR with same size and type at no additional cost to the OWNER.

END OF SECTION

02110-2

SECTION 02140

DEWATERING

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Furnish all labor and equipment required to dewater all excavations. Dewatering of all excavations shall be the responsibility of the CONTRACTOR, and no additional compensation will be allowed for same unless specifically included as a bid item.
- B. Leaking pipes and structures are to be anticipated on this project. For this reason, no additional payment will be made for dewatering associated with leakage from any existing facility.

1.02 RELATED WORK

- A. Earthwork is included in Section 02200.
- B. Crushed stone and DGA are included in Section 02235.
- C. Erosion and sedimentation control is included in Section _____.

1.03 SUBMITTALS

- A. None.

PART 2 PRODUCTS

None in this Section.

PART 3 EXECUTION

3.01 GENERAL

- A. Dewatering equipment shall be of adequate size and quantity to assure maintaining proper conditions for installing pipe, concrete, backfill or other material or structure in the excavation. Dewatering shall include proper removal of any and all liquid, regardless of source, from the excavation and the use of all practical means available to prevent surface runoff from entering any excavation.

END OF SECTION

SECTION 02200
EARTH AND ROCK WORK

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Extent of earthwork is indicated on the Drawings.
 - 1. Preparation of subgrade for tanks, basins, building slabs, walks and pavements is included as part of this work.
 - 2. Engineered fill course for support of building or basin slabs is included as part of this work.
 - 3. Backfilling of tanks, basins, basements, and trenches within building lines is included as part of this work.
- B. Excavation for Mechanical/Electrical Work
 - 1. Excavation and backfill required in conjunction with underground mechanical and electrical utilities, and buried mechanical and electrical appurtenances is included as work of this Section.

1.02 RELATED WORK

- A. Dewatering is included in Section 02140.
- B. Crushed Stone and DGA is included in Section 02235.
- C. Pressure Pipe is included in Section 02610.
- D. Sewer and Drain Pipe is included in Section 02700.
- E. Sodding and Seeding is included in Section 02930.

1.03 QUALITY ASSURANCE

- A. Perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.
- B. Employ, at CONTRACTOR'S expense, testing laboratory acceptable to the OWNER to perform soil testing and inspection service for quality control testing during earthwork operations.

1.04 SUBMITTALS

- A. Submit following reports directly to the ENGINEER from the testing services, with copy to CONTRACTOR:
 - 1. Test reports on borrow material.

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2. Verification of each footing subgrade.
3. Field density test reports.
4. One optimum moisture-maximum density curve for each type of soil encountered.
5. Report of actual unconfined compressive strength and/or results of bearing tests on each strata tested.

1.05 JOB CONDITIONS

A. Site Information

1. Data on indicated subsurface conditions are not intended as representations or warranties of accuracy or continuity between soil borings. It is expressly understood that OWNER will not be responsible for interpretation or conclusions drawn therefrom by CONTRACTOR. Data are made available for convenience of CONTRACTOR.
2. Additional test borings and other exploratory operations may be made by CONTRACTOR at no cost to OWNER.

B. Existing Utilities

1. Prior to commencement of work, the CONTRACTOR shall locate existing underground utilities in areas of the work. If utilities are to remain in place, provide adequate means of protection during earthwork operations.

C. Use of Explosives

1. No blasting permitted.

D. Protection of Persons and Property

1. Barricade open excavations occurring as part of this work and post with warning lights.
2. Operate warning lights as recommended by authorities having jurisdiction.
3. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.

PART 2 PRODUCTS

2.01 SOIL MATERIALS

A. Definitions

1. Satisfactory soil materials are defined as those complying with ASTM D2487-85 soil classification groups GW, GP, GM, SM, SW, SP, GC, SC, ML, and CL.
2. Unsatisfactory soil materials are defined as those complying with ASTM D2487-85 soil classification groups MH, CH, OL, OH and PT.
3. Subbase material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, crushed slag, natural or crushed sand.
4. Drainage fill: Washed, evenly graded mixture of crushed stone, or crushed or uncrushed gravel, with 100 percent passing a 1-1/2 inch sieve and not more than 5 percent passing a No. 4 sieve.
5. Backfill and fill materials: Satisfactory soil materials free of debris, waste, frozen materials, vegetable, and other deleterious matter.
6. Engineered fill: (Refer to this Section, paragraph 3.07.)

PART 3 EXECUTION

3.01 STRIPPING AND TOPSOILING

- A. Before excavation and grading is commenced for buildings, structures or other work described hereinafter (except pipelines and manholes) or before material is removed from borrow pits, the material meeting the topsoil specification in Section 02930 of these Specifications shall be removed from the areas affected and stockpiled.
- B. When final grading is accomplished, particularly around buildings and other structures, the topsoil shall be spread evenly over the excavated area. Rough grading above excavated areas shall have been carried approximately 6 inches below finished grade (except solid rock, where it shall be carried 12 inches below finished grade) and brought back up to grade with topsoil as set out herein.

3.02 EXCAVATION

- A. Excavation includes excavation to subgrade elevations indicated including excavation of earth, rock, bricks, wood, cinders, and other debris. All excavation of materials in the lump sum portion of the work will be unclassified and no additional payment will be made regardless of type material encountered.
- B. Differing Site Conditions
 1. Refer to Section 00700, paragraph 5.04.

C. Excavation Classifications

1. All excavation is unclassified.

D. Unauthorized excavation consists of removal of materials beyond subgrade elevations or dimensions without specific direction of ENGINEER. Unauthorized excavation, as well as remedial work directed by ENGINEER, shall be at CONTRACTOR's expense.

1. Under footings, foundation bases, or retaining walls, fill unauthorized excavation by extending indicated bottom elevation of footing or base to excavation bottom, without altering required top elevation. Lean concrete fill may be used to bring elevations to proper position, when acceptable to the ENGINEER.
2. Elsewhere, backfill and compact unauthorized excavations as specified for authorized excavations of same classification.

E. Additional Excavation

1. When excavation has reached required subgrade elevations, notify the ENGINEER who will make an inspection of conditions.
 - a. If unsuitable bearing materials are encountered at required subgrade elevations, carry excavations deeper and replace excavated material as directed in writing by the ENGINEER.
 - b. Removal of unsuitable material and its replacement as directed will be paid on basis of Contract conditions relative to changes in work.

F. Stability of Excavations

1. Slope sides of excavations to comply with codes and ordinances having jurisdiction. Shore and brace where sloping is not possible because of space restrictions or stability of material excavated.
2. Maintain sides and slopes of excavations in safe condition until completion of backfilling.

G. Shoring and Bracing

1. Provide materials for shoring and bracing, such as sheet piling, uprights, stringers, and cross-braces, in good serviceable condition.
2. Establish requirements for trench shoring and bracing to comply with codes and authorities having jurisdiction.
3. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Carry down shoring and bracing as excavation progresses.

4. Provide permanent steel sheet piling or pressure creosoted timber sheet piling wherever subsequent removal of sheet piling might permit lateral movement of soil under adjacent structures. Cut off tops as required and leave permanently in place. In the event the OWNER directs the CONTRACTOR to leave shoring materials in place, the OWNER will reimburse the CONTRACTOR for the reasonable cost of leaving such materials in place.

H. Dewatering

1. Refer to Section 02140 for dewatering requirements.

I. Material Storage

1. Stockpile satisfactory excavated materials where directed, until required for backfill or fill. Place, grade, and shape stockpiles for proper drainage.
2. Dispose of excess soil material and waste materials as herein specified.

J. Excavation for Pavements

1. Cut surface under pavements to comply with cross-sections, elevations, and grades as shown.

K. Trench Excavation

1. The CONTRACTOR shall include in his lump sum bid all trenching and backfill necessary for installation of all pipelines as planned and specified unless specific unit prices are set up for specific pipeline. Trenching shall include clearing and grubbing of all trash, weeds, briars, trees and stumps encountered in the trenching. The CONTRACTOR shall dispose of such material at no extra cost to the OWNER. Shrubs shall be removed, maintained and replanted in the same or adjacent location. Trenching also includes such items as railroad, street, road, sidewalk, pipe, and small creek crossings; cutting, moving or repairing damage to fences, posts, gates, and other surface structures regardless of whether shown on the Drawings.
2. All existing facilities shall be protected from danger or damage while pipelines are being constructed and backfilled, and from damage due to settlement of the backfill.
3. In the event any existing structure is damaged, repair and restoration shall be made at once and backfill shall not be replaced until this is done. Restoration and repair shall be such that the damaged structure is equal to or better than its original condition and can serve its purpose as completely as before. All such restoration and repair shall be done without extra cost to the OWNER.
4. Trenches must be dug to lines and grades shown on the Drawings. Hand trenching may be required in areas where machine trenching would result in undue damage to existing structures and facilities.

5. Excavation shall be open trenches, except where otherwise shown on the Drawings, for tunneling, boring, or jacking under structures, railroad, sidewalks and roads.
6. Sheeting and shoring of trenches shall be provided at the expense of the CONTRACTOR where necessary to protect life, property and the new or existing structures from damage or to maintain maximum permissible trench widths at top of pipe. All necessary materials, including, but not limited to, sheeting, sheet piling, trench jacks, braces, shores and stringers, shall be used to hold trench walls. Sheeting and shoring may be withdrawn as the trenches are being backfilled, after backfill has been tamped over top of the pipe at least 18 inches. If removal before backfill is completed to surface endangers adjacent structures, such as buildings, pipelines, street paving, and sidewalks, then the sheeting and shoring shall be left in place until such danger has passed, and then pulled if practical. Voids caused by sheeting withdrawal shall be backfilled and tamped. If not withdrawn, sheeting shall be cut off at least 18 inches below final surface grade, so there is no obstruction at the ground level. In the event the OWNER directs the CONTRACTOR to leave shoring materials in place, the OWNER will reimburse the CONTRACTOR for the reasonable cost of leaving such materials in place.
7. Where subgrade of trench has insufficient stability to support the pipeline and hold it to its original grade, the ENGINEER may order stabilization by various means. Exclusive of dewatering normally required for construction, and instability caused by neglect of the CONTRACTOR, the necessary stabilization shall be paid for at unit prices established in the Contract. In the event no particular bid price is applicable, then the payment for stabilization will be negotiated.
8. The location of the pipelines and their appurtenances as shown are those intended for the final construction. However, conditions may present themselves before construction on any line is started that would indicate desirable changes in location. The OWNER reserves the right to make reasonable changes in line and structure locations without extra cost, except as may be determined by extra units of materials and construction actually involved. The OWNER is under no obligation to locate pipelines, so they may be excavated by machine.
9. Tunneling may be used at the CONTRACTOR'S option as an alternate to open-cut trenching, at no extra cost to the OWNER. The annular space between plates and excavation shall be either permanently placed pea gravel or sand, pumped grout (3 parts sand and 1 part Portland cement by volume) or other suitably installed material approved by the ENGINEER. Backfilling shall be kept close to the heading and completed after each day's work. Where grout is used for backfill, injection holes with threaded plugs shall be provided in liner plates at various levels and in sufficient number to effectively grout the void around the tunnel. A minimum of 3 grout holes shall be provided in each 8 feet of tunnel length. Grout shall be injected in the lower holes first, proceeding upward as the void is filled. Plugs shall be installed after each hole is filled and grout stops

shall be provided behind plates as necessary to ensure complete filling of the void. In tunneling under buildings, the CONTRACTOR will be responsible for all damage resulting from his operations and methods of excavation and backfilling. Boring may also be used at the CONTRACTOR'S option as an alternate to tunneling or open-cut trenching, at no extra cost to the OWNER.

10. Dig trenches to the uniform width required for the particular item to be installed, sufficiently wide to provide ample working room. Provide 6-inch to 9-inch clearance on both sides of pipe or conduit.
 - a. Excavate trenches to depth indicated or required. Carry depth of trenches for piping to establish indicated flow lines and invert elevations. Keep bottoms of trenches sufficiently below finish grade to avoid freeze-ups.
 - b. Where rock is encountered, carry excavation 6 inches below required elevation and backfill with a 6-inch layer of crushed stone or gravel prior to installation of pipe.
 - c. For pipes or conduit 4 inches or smaller in nominal size, excavate to subbase depth indicated or, if not otherwise indicated, to 4 inches below bottom of work to be supported.
 - d. For pipes or conduit 6 inches or larger in nominal size, tanks, and other mechanical/electrical work indicated to receive subbase, excavate to subbase depth indicated or, if not otherwise indicated, to 6 inches below bottom of work to be supported.
 - e. Except as otherwise indicated, excavation for exterior water-bearing piping (water, steam, condensate, drainage) so top of piping is no less than 2 feet 6 inches below finish grade.
 - f. Grade bottoms of trenches as indicated, notching under pipe bells to provide solid bearing for entire body of pipe.
 - g. Backfill trenches with concrete where trench excavations pass within 18 inches of column or wall footings and which are carried below bottom of such footings, or which pass under wall footings. Place concrete to level of bottom of adjacent footing.
 - h. Do not backfill trenches until tests and inspections have been made and backfilling authorized by the ENGINEER. Use care in backfilling to avoid damage or displacement of pipe systems.
 - i. For piping or conduit less than 2 feet 6 inches below surface of roadways, furnish and install steel casing pipe, minimum wall thickness of 1/4-inch, of sufficient diameter to carry the pipe or conduit to at least 2 feet beyond outside edge of pavement.

L. Cold Weather Protection

1. Protect excavation bottoms against freezing when atmospheric temperature is less than 35 degrees Fahrenheit (1 degree Celsius).

3.03 COMPACTION

A. General

1. Control soil compaction during construction providing minimum percentage of density specified for each area classification indicated below:
 - a. Percentage of maximum density requirements: Compact soil to not less than the following percentages of maximum density for soils which exhibit a well-defined moisture density relationship (cohesive soils) determined in accordance with ASTM D698; and not less than the following percentages of relative density, determined in accordance with ASTM D4253 and D4254, for soils which will not exhibit a well-defined moisture-density relationship (cohesionless soils).
 - b. Structures, building slabs and steps, pavements: Compact top 12 inches of subgrade and each layer of backfill or fill material at 95 percent standard proctor density at +2 percent to -2 percent optimum moisture content.
 - c. Lawn or unpaved areas: Compact top 6 inches of subgrade and each layer of backfill or fill material at 90 percent standard proctor density.
 - d. Walkways: Compact top 6 inches of subgrade and each layer of backfill or fill material at 95 percent standard proctor density at +2 percent to -2 percent optimum moisture content.

B. Moisture Control

1. Where subgrade or layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface or subgrade, or layer of soil material, to prevent free water appearing on surface during or subsequent to compaction operations.
2. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.
3. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing, or pulverizing until moisture content is reduced to a satisfactory value.

3.04 BACKFILL AND FILL

A. General

1. Place acceptable soil material in layers to required subgrade elevations, for each area classification listed below. Backfill material shall be no larger than the specified depth of the layer to be placed and/or compacted.
 - a. In excavations, use satisfactory excavated or borrow material.
 - b. Under grassed areas, use satisfactory excavated or borrow material.
 - c. Under walks and pavements, use subbase material, or satisfactory excavated or borrow material, or combination of both.
 - d. Under steps, use subbase material.
 - e. Under building slabs, use subbase material for a minimum depth of 6 inches.

B. Backfill excavations as promptly as work permits, but not until completion of the following:

1. Acceptance of construction below finish grade including, where applicable, dampproofing, waterproofing, and perimeter insulation.
2. Inspection, testing, approval, and recording locations of underground utilities.
3. Removal of concrete formwork.
4. Removal of shoring and bracing, and backfilling of voids with satisfactory materials. Cut off temporary sheet piling driven below bottom of structures and remove in manner to prevent settlement of the structure or utilities, or leave in place if required.
5. Removal of trash and debris.
6. Permanent or temporary horizontal bracing is in place on horizontally supported walls.

C. Ground Surface Preparation

1. Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fills. Plow, strip, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so that fill material will bond with existing surface.
2. When existing ground surface has a density less than that specified under "Compaction" for particular area classification, break up ground surface,

pulverize, moisture condition to optimum moisture content, and compact to required depth and percentage of maximum density.

D. Placement and Compaction

1. Place backfill and fill materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers. Crushed stone shall be installed in accordance with Section 02235.
2. Before compaction, add moisture or aerate each layer as necessary to provide optimum moisture content. Compact each layer to required percentage of maximum dry density or relative dry density for each area classification. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
3. Place backfill and fill materials evenly adjacent to structures, piping, or conduit to required elevations. Take care to prevent wedging action of backfill against structures or displacement of piping or conduit by carrying material uniformly around structure, piping, or conduit to approximately same elevation in each lift.

E. Backfilling Trenches

1. Refer to Section 02610 or Section 02700 as appropriate for trench backfill requirements.

3.05 GRADING

A. General

1. Uniformly grade areas within limits of grading under this Section, including adjacent transition areas. Smooth finished surface within specified tolerances, compact with uniform levels or slopes between points where elevations are indicated, or between such points and existing grades.

B. Grading Outside Building Lines

1. All materials used for backfill around structures shall be of a quality acceptable to the ENGINEER and shall be free from large or frozen lumps, wood and other extraneous material. All spaces excavated and not occupied by footings, foundations, walls or other permanent work shall be refilled with earth up to the surface of the surrounding ground, unless otherwise specified, with sufficient allowance for settlement.
2. In making the fills and terraces around the structures, the fill shall be placed in layers not exceeding 12 inches in depth and shall be kept smooth as the work progresses. Each layer of the fill shall be rolled with an approved type roller and/or be compacted. When it is not practicable to compact sections of the fill immediately adjacent to buildings or

structures by rolling, then such sections shall be thoroughly compacted by means of mechanical tamping or hand tamping as may be required by the conditions encountered.

3. All fills shall be placed so as to load structures symmetrically.
4. As set out hereinbefore, rough grading shall be held below finished grade and then the topsoil which has been stockpiled shall be evenly spread over the surface. The grading shall be brought to the levels shown on the Drawings or to the elevations established by the ENGINEER. Final dressing shall be accomplished by hand work or machine work, or a combination of these methods as may be necessary to produce a uniform and smooth finish to all parts of the regrade. The surface shall be free from clods greater than 2 inches in diameter. Excavated rock may be placed in the fills, but it shall be thoroughly covered. Rock placed in fills shall not be closer than 12 inches from finished grade.
5. Grade areas adjacent to building lines to drain away from structures and to prevent ponding.
 - a. Finish surfaces to be free from irregular surface changes, and as follows:
 - (1) Lawn or unpaved areas: Finish areas to receive topsoil to within not more than 0.10 feet above or below required subgrade elevations.
 - (2) Walks: Shape surface of areas under walks to line, grade, and cross-section, with finish surface not more than 0.0 inch above or 1.0 inch below required subgrade elevation.
 - (3) Pavements: Shape surface of areas under pavement to line, grade, and cross-section, with finish surface not more than 0.0 inch above or 1 inch below required subgrade elevation.

C. Grading Surface of Fill Under Building Slabs

1. Grade smooth and even, free of voids, compacted as specified, and to required elevation. Provide final grades within a tolerance of 0.0 inch above or 1 inch below required subgrade elevation when tested with a 10-foot straightedge.

D. Compaction

1. After grading, compact subgrade surfaces to the depth and indicated percentage of maximum or standard proctor density for each area classification.

3.06 PAVEMENT SUBBASE COURSE

A. General

1. Subbase course consists of placing subbase material, in layers of specified thickness, over subgrade surface to support a pavement base course.

B. Grade Control

1. During construction, maintain lines and grades including crown and cross-slope of subbase course.

C. Shoulders

1. Place shoulders along edges of subbase course to prevent lateral movement. Construct shoulders of acceptable soil materials, placed in such quantity to compact to thickness of each subbase course layer. Compact and roll at least a 12-inch width of shoulder simultaneously with compacting and rolling of each layer of subbase course.

D. Placing

1. Place subbase course material on prepared subgrade in layers of uniform thickness, conforming to indicated cross-section and thickness. Maintain optimum moisture content for compacting subbase material during placement operations.
2. When a compacted subbase course is shown to be 6 inches thick or less, place material in a single layer. When shown to be more than 6 inches thick, place material in equal layers, except no single layer more than 6 inches or less than 3 inches in thickness when compacted.

3.07 FIELD QUALITY CONTROL

A. Quality Control Testing During Construction

1. Allow testing service to inspect and report to the ENGINEER on findings and approve subgrades and fill layers before further construction work is performed. A minimum of 3 tests per layer shall be performed on compacted soil fill. The placement of rock for the purpose of structure fill shall be observed and approved by testing service.
2. Perform field density tests in accordance with ASTM D1556 (sand cone method), ASTM D2167-84 (rubber balloon method), or ASTM D2992-87 (nuclear density method), as applicable.
3. Paved areas and building slab subgrade: Make at least one field density test of subgrade for every 2,000 square feet of paved area or building slab, but in no case less than 3 tests. In each compacted fill layer, make one field density test for every 2,000 square feet of overlaying building slab or paved area, but in no case less than three tests.

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4. Foundation wall backfill: Take at least 2 field density tests, at locations and elevations as directed.
- B. If in opinion of the ENGINEER, based on testing service reports and inspection, subgrade or fills which have been placed are below specified density, provide additional compaction and testing at no additional cost to the OWNER.

3.08 MAINTENANCE

A. Protection of Graded Areas

1. Protect newly graded areas from traffic and erosion. Keep free of trash and debris. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.

B. Reconditioning Compacted Areas

1. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape, and compact to required density prior to further construction.

C. Settling

1. Where settling is measurable or observable at excavated areas during general project warranty period, remove surface (pavement, lawn or other finish), add backfill material, compact, and replace surface treatment. Restore appearance, quality, and condition of surface or finish to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.09 DISPOSAL OF EXCESS NON-ORGANIC SOIL AND ROCK

A. General

1. The OWNER'S property as designated on the Drawings and/or specified herein shall be used for disposal of all acceptable excess excavated material, including acceptable demolition materials. The CONTRACTOR shall place and compact all acceptable excess excavated and/or demolition material at this location, with the cost of hauling, placing, compacting and covering, included in the CONTRACTOR'S lump sum bid.

B. Material Classification and Description

1. Acceptable fill material shall consist of all excess non-organic soil and rock available at the site. The non-organic soil and rock may be composed of earth, shale, limestone, weathered rock, waste crushed aggregate or other approved materials. Excess non-organic soil and rock shall contain no particle whose largest dimension exceeds 12 inches.

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C. Foundation Preparation

1. The CONTRACTOR shall proof roll the fill area a minimum of 2 passes. Any soft spots found shall be removed prior to fill placement.

END OF SECTION

02200-14

SECTION 02400
STREETS, ROADS AND PARKING AREAS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Provide all labor, materials, equipment, and services required to construct pump station access road and parking/maintenance area as shown on the Contract Drawings and as specified herein.

1.02 RELATED WORK

- A. Crushed stone, DGA, paving and concrete are specified in other sections of Divisions 2 and 3.

1.03 SUBMITTALS

- A. Shop drawings, manufacturer's data and other items needed to establish compliance with the Drawings and these Specifications shall be submitted to the ENGINEER in accordance with Section 00700.

1.04 WARRANTY

- A. Refer to Section 00700 for general warranty requirements.
- B. Special warranty requirements are stated as follows:

PART 2 PRODUCTS

2.01 CONSTRUCTION MATERIALS

- A. Concrete materials and methods of installation are specified in Section 03300.
- B. Drainage pipe and methods of installation are specified in Section 02700.
- C. Crushed stone and dense graded aggregate materials are specified in Section 02235.
- D. Bituminous paving materials and methods of placement are specified in Section 02500.
- E. Concrete paving materials and methods of placement are specified in Section 02510.
- F. Sodding and seeding materials and methods of construction are specified in Section 02930.

PART 3 EXECUTION

3.01 DELIVERY, STORAGE AND HANDLING

A. Clearing and Grubbing

1. Clearing and grubbing requirements shall be as stated in Section 202 of KTCSSRBC except that the method of payment as stated therein shall not apply.

B. Removal of Structures and Obstructions

1. Removal of structures and obstructions requirements shall be as stated in Section 203 - KTCSSRBC.

C. Roadway and Drainage Excavation

1. The requirements for roadway and drainage excavation shall be as stated in Section 204 of KTCSSRBC.

D. Borrow Excavation

1. The requirements for borrow excavation shall be as stated in Section 205 of KTCSSRBC.

E. Roadway Structure Excavation

1. The requirements for roadway structure excavation shall be as stated in KTCSSRBC Section 206.

F. Roadway Embankment

1. The requirements for roadway embankments shall be as stated in KTCSSRBC Section 207.

G. Roadway Subgrade

1. The requirements for roadway subgrade shall be as stated in KTCSSRBC Section 208.

H. Roadway Shoulders

1. The requirements for roadway shoulder construction shall be as stated in KTCSSRBC Section 209.

I. Ditching and Shouldering

1. The requirements for ditching and shouldering shall be as stated in KTCSSRBC Section 210.

J. Final Dressing

1. The requirements for final roadway dressing shall be as stated in KTCSSRBC Section 211. Final dressing shall meet the requirements under Final Dressing - Class A.

K. Erosion Control

1. Requirements for erosion control shall be as delineated in Section 02930 - Sodding and Seeding of these Specifications. When work is located within Department of Highways rights-of-way, the requirements for erosion control shall be as delineated in KTCSSRBC - Section 212.

L. Water Pollution Control

1. The requirements for water pollution control shall be per KTCSSRBC Section 213.

M. Aggregate Surfaces and Base Courses for Paved Surface

1. The requirements for crushed stone aggregate and base courses for paved surfaces are specified in Section 02235.

N. Paved Surfaces

1. Bituminous Pavements
 - a. The requirements for bituminous paving are as shown in Section 02500 of these Specifications.
2. Concrete Pavements
 - a. The requirements for concrete pavements are as shown in Section 02510 of these Specifications.

END OF SECTION

SECTION 02500
ASPHALT PAVING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The CONTRACTOR shall be required to supply all materials and equipment and perform all work for the placement of the base and surface course(s) for restoring to the preconstruction condition the surface of the existing streets, roads, drives and parking areas to the depths as shown in the detailed Drawings and as specified herein.

1.02 REFERENCES

- A. Unless noted, all Specifications designations denoted KTCSSRBC refer to the Kentucky Transportation Cabinet Department of Highways Standard Specification for Road and Bridge Construction. Appropriate technical portions of the referenced sections of the Specifications shall apply, but all work and method of payment shall be as described herein unless otherwise specified or shown on the Drawings.

1.03 RELATED WORK

- A. Special sequence or schedule requirements (if any) are specified in Section 01010 - Summary of Work.
- B. Special requirements for materials and equipment are given in Section 00700 and 01600.
- C. Crushed stone surfacing requirements, temporary and permanent replacement, are specified in Section 02235 of these Specifications.
- D. New streets, roads and parking area material and construction are specified in Section 02400.

1.04 WORK DESCRIPTION

- A. Asphalt shall be used for replacement of city streets, drives, and state highways of asphalt construction and for resurfacing existing roads and state highways at locations shown on the Drawings or specified.

1.05 QUALIFICATIONS

- A. The pavement design mixture shall be used as determined by local plant mix availability. The design mixture shall have been approved recently by the Kentucky Transportation Cabinet Department of Highways and used recently on a state paving project.
- B. The design mix shall be submitted to the ENGINEER for review and acceptance. The submittal shall include the following:

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1. The last date the mixture was approved by the Kentucky Transportation Cabinet Department of Highways for use on a state road project.
2. The location where the mixture was recently used, and the name and address of the paving contractor.

1.06 SUBMITTALS

- A. Prebid submittals, when required, are specified in Section 00820 - Special Conditions of these specifications.
- B. Shop Drawings, manufacturers data and other items needed to establish compliance with the Drawings and Specifications shall be submitted to the ENGINEER in accordance with Section 00700.

1.07 WARRANTY

- A. Refer to Section 01600 for warranty requirements.

PART 2 PRODUCTS

2.01 ASPHALT PAVING

- A. Mixture
 1. The asphaltic paving provided for use on this Contract shall conform to the applicable requirements of KTCSSRBC Section 401, Asphalt Plant Requirements; Section 402, Control and Acceptance of Asphalt Mixtures; and Section 403, Production and Placement of Asphalt Mixtures. The pavement mixture shall meet the requirements of Section 403.03.03.
- B. Fine aggregates shall meet the requirements of KTCSSRBC Section 804.
- C. Coarse aggregates shall meet the requirements of KTCSSRBC Section 805.
- D. Asphaltic materials shall meet the requirements of KTCSSRBC Section 806.
- E. Asphaltic materials for tack coat shall be one of the following: SS-1, SS-1h, CSS-1, CSS-1h, AE-60, RS-1, or CRS-1, conforming to Section 406.

PART 3 EXECUTION

3.01 GENERAL

- A. Construction requirements shall conform to applicable requirements of Section 403 of KTCSSRBC.
- B. A tack coat shall be required to bond new paving to the surface of concrete or brick pavements and bases or existing asphalt surfaces. It shall be applied at the rate of 0.8 pound (0.1 gallon) per square yard at the following range of application temperatures:

SS-1, SS-1h, CSS-1, CSS-1h, AE-60	70-160°F
RS-1	70-140°F
CRS-1	120-185°F

- C. When SS1, SS1h, CSS1, CSS1h, or AE60 is furnished for tack material, it shall be diluted with an equal quantity of water conforming to Section 803, shall be thoroughly mixed prior to application, and shall be applied a sufficient time in advance of the paver to ensure that all water has evaporated before the asphalt mixture is placed. The application rate shall be 0.8 pound (0.1 gallon) per square yard of the diluted SS1, SS1h, CSS1, CSS1h, or AE60.
- D. Where asphalt paving is placed against vertical surfaces such as curbs, gutters, manhole frames, valve boxes, etc., the vertical face shall be tack coated in order to seal the surface. Where these surfaces are inaccessible to pressure distributor, the tack coat may be brushed or broomed into place. The tack coat shall not be allowed to spill over onto any horizontal surface outside the area to be paved.
- E. Unless otherwise indicated on the Drawings or in these Specifications, the compacted thickness of the asphalt paving shall be a minimum of 1 inch and the minimum ambient temperature for mixing and laying temperatures shall be as follows:

Open Graded Friction Course	60°F
Asphalt Mixture (1-Inch Thick)	45°F
Asphalt Mixture (thicker than 1-inch)	40°F
Asphalt Mixture (Base and Binder)	35°F
Leveling and Wedging	45°F
- F. Trucks for hauling asphaltic mixtures shall have tight, clean, and smooth metal beds that have been sprayed with a minimum amount of soap emulsion, paraffin oil, or other approved material which is not detrimental to the mixture to prevent the mixture from adhering to the beds. All trucks shall be equipped with covers of sufficient size to completely cover the loaded material, and all covers shall be securely fastened in place before the truck leaves the plant. Truck beds shall be insulated, when necessary, to maintain the specified temperature to the point of delivery. Any truck causing excessive segregation of material by its spring suspension or other contributing factors, shall be discharged from the work, until such conditions are corrected.
- G. The CONTRACTOR shall have an accurate thermometer on the job at all times for verifying all temperature requirements and for taking temperature measurements whenever requested by the ENGINEER or OWNER. The CONTRACTOR shall closely control temperature and compaction requirements in order to achieve quality asphalt paving and related work.
- H. Asphalt paving which fails as the result of not meeting the requirements of these Specifications shall be removed and replaced as directed by the ENGINEER at the CONTRACTOR'S expense.
- I. Where manhole frames, valve boxes, drainage grates, etc., are located within the area to receive asphalt paving replacement, those facilities shall be adjusted to

final pavement grade prior to the placement of the asphalt surface. Where the facilities to be adjusted are the property of the OWNER, the CONTRACTOR shall adjust the facilities with the cost included in the CONTRACTOR'S bid for asphalt replacement. Where the facilities to be adjusted are the property of other utility companies, i.e., gas, water, electric, telephone, the CONTRACTOR shall notify each utility company of the schedule for repaving of the particular area to allow those companies sufficient time to adjust their facilities prior to beginning the repaving process.

- J. Where pavement striping is destroyed or damaged, it shall be replaced per the requirements stated herein. The cost of all striping, unless stated otherwise in these specifications, shall be included in the price bid for pavement replacement.
- K. Damaged or destroyed traffic control loops shall be replaced per the requirements of the traffic control operator with the cost incorporated into the CONTRACTOR'S bid for pavement replacement.

3.02 TRENCH WIDTH REPAVING-CITY AND COUNTY STREETS, ROADS AND PARKING AREAS

- A. The cut edges of the existing paving surface shall be trimmed a depth of at least 2 inches to straight lines for uniform appearance and clean surface at joints. The area between the cut edges of the paving shall be removed to a depth of 2 inches (minimum) or to the bottom of the existing paving. All unstable material in the trench shall be removed and replaced with compacted dense graded aggregate and dense graded aggregate added as needed to bring the base surface to the bottom of existing paving or 2 inches below the existing surface, whichever is the lower. Dense graded aggregate required for stabilizing the subgrade will be paid for as an extra, but no extra payment will be allowed for removal of unstable back-fill.
- B. The paving subgrade shall be compacted under the wheel of a roller, until there is no observed settlement of the subgrade.
- C. The sides of existing pavement shall be covered with a tack coat and asphalt paving shall be hot applied as previously described. Final surface shall be finished to 1/4-inch above existing paving surface at edges and crowned to 1/2-inch above existing surface at the center.
- D. Payment for asphalt repaving shall be per linear foot of pipeline covered to any width the CONTRACTOR shall find necessary to remove plus width of cut back to secure clean straight edges, and shall include excavation to subgrade, preparation of subgrade, cleaning edges of existing paving, tack coat, and all operations and materials planned and specified for this type of repaving. The CONTRACTOR shall maintain such repaving up to grade of existing street surface until final completion and acceptance of work under his Contract. During the guarantee period of one year, the CONTRACTOR will be responsible for defective materials or workmanship, and natural settlement.
- E. In case additional asphalt paving is to be added due to settlement, the surface which has experienced settlement shall be cut out, additional dense graded

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aggregate added if necessary, tack coat applied to the existing sides of existing pavement, and the paving in the settled area(s) replaced. Additional payment will not be allowed for the repair work required.

3.03 TRENCH WIDTH REPAVING-STATE MAINTAINED STREETS AND HIGHWAYS

- A. Streets, roads and highways maintained by the Kentucky Transportation Cabinet Department of Highways shall be repaved in accordance with details shown on the attached Department of Highways Drawing No. TD 99-13, latest revision.
- B. Concrete base slab shall be cleaned and tack coated, and asphalt paving shall be hot applied as previously described.
- C. Payment for replacement of asphalt paving on state maintained streets and roads, where concrete base slab and asphalt surface are required, shall be per foot of pipeline covered, and shall include excavation, crushed rock or flowable fill backfill, base courses, concrete base slab, tack coat, and asphalt surfacing. Widths, depths, and other details and methods of application shall be as shown on attached drawing and as required by the Kentucky Transportation Cabinet Department of Highways.
- D. The CONTRACTOR shall maintain the surface of all state highways and state maintained streets to grade during the entire guarantee period of the Contract.

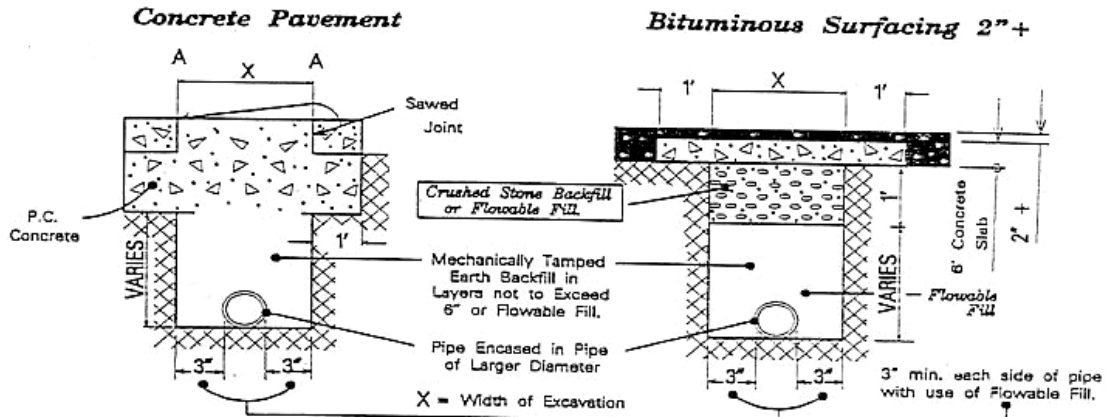
3.04 CROSSWALK MARKINGS

- A. Crosswalk marking shall meet the requirements Section 3B.18 of the Manual of Uniform Traffic Control Devices (MUTCD).

END OF SECTION

Attachment: Kentucky Department of Highways drawing No. TC 99-13.

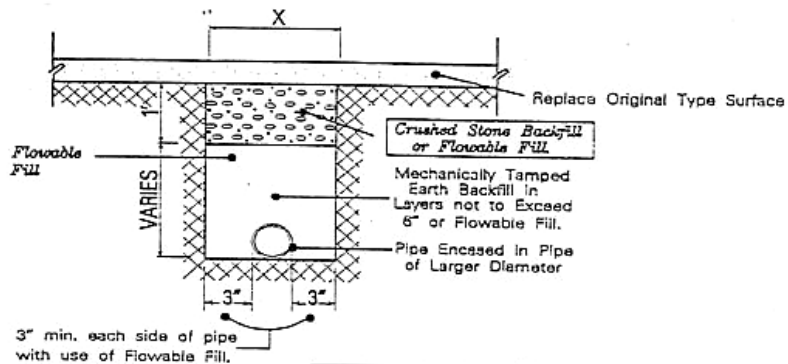
SURFACE RESTORATION METHODS



Replace Concrete Pavement with new pavement same thickness of existing pavement.

Repace Bituminous Pavement with same type and depth as existing pavement.

Bituminous Surface Less Than 2" & Traffic Bound Macadam



NOTE:

1. Distance From points "A" (Concrete Pavement) to nearest joint or break in pavement must be six (6) feet or more. If less than six (6) feet, remove pavement to joint or break and replace entire slab.
2. Concrete slab under Bituminous Surface to extend twelve (12) inches on each side of trench.
3. An approved joint sealer to be applied between new and existing pavement.

KENTUCKY TRANSPORTATION CABINET

Department of Highways

Methods of Surface Restoration Due to
 Open trench Pipe Installation

SECTION 02510
CONCRETE PAVING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Provide all labor, materials, equipment, and services required to construct trench-width repair of driveways as shown on the Contract Drawings and as specified herein.

1.02 RELATED WORK

- A. Special sequence or schedule requirements (if any) are specified in Section 01010 - Summary of Work.
- B. Special requirements for materials and equipment are given in Sections 00700 and 01600.
- C. Grading and drainage of streets, roads and parking areas are as specified in Section 02400.
- D. Crushed stone bases, if required, are as specified in Section 02235.

1.03 SUBMITTALS

- A. Prebid submittals, if required, are specified in Section 00820 - Special Conditions.
- B. Shop drawings and other items needed to establish compliance with the Drawings and these Specifications shall be submitted to the ENGINEER in accordance with Section 00700.

1.04 WARRANTY

- A. Refer to Section 00700 for warranty requirements.

PART 2 PRODUCTS

2.01 CONCRETE MATERIALS

- A. Concrete and related materials are specified in Section 03301.

PART 3 EXECUTION

3.01 CONCRETE ROADWAY PAVING

- A. Concrete surface paving shall meet the requirements of Section 501 of the Kentucky Transportation Cabinet, Department of Highways Standard Specifications for Road and Bridge Construction.

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- B. Concrete base paving shall meet the requirements of Section 502 of the Kentucky Transportation Cabinet, Department of Highways Standard Specifications for Road and Bridge Construction.

END OF SECTION

02510-2

SECTION 02610

WATER AND SEWAGE FORCE MAIN PIPE

PART 1 GENERAL

1.01 SUMMARY

- A. For Cover Pipe and Boring and/or Jacking see Section 02326.
- B. For Tunnel Liner Plates and Tunneling see Section 02300.
- C. All pipe, fittings, and jointing materials shall be of one manufacturer unless different types are shown on the Drawings or otherwise accepted by the ENGINEER.

1.02 SUBMITTALS

A. General

- 1. Prior to the shipment of any water and/or sewage force main piping to the project site, the CONTRACTOR shall submit to the ENGINEER a bill of materials, shop drawings, and descriptive literature for all piping, in the number of copies listed in Section C-700 of these Specifications.

B. Plant and Site Piping

- 1. Submit shop drawings of all interior and exterior piping.
- 2. Submit testing and certifications for interior and exterior piping.

C. Water Main and Sewage Force Main Projects

- 1. Shop drawings for line work are not required unless project contains pumping station, valve vault piping or similar items.
- 2. Submit descriptive literature for all piping.
- 3. Submit testing and certifications for all piping.

PART 2 PRODUCTS

2.01 MATERIALS-WATER MAIN AND SEWAGE FORCE MAIN PIPE

A. Ductile Iron Pipe-Mechanical and Rubber Slip Joint Type

1. Pipe

a. General

- (1) Ductile iron pipe shall be furnished for all piping 3 inches and over in size designated "D.I." on Drawings and shall be designed in accordance with ANSI/AWWA C150/A21.50 and

ANSI/AWWA C151/A21.51 specifications and supplements thereto.

b. Design Conditions

- (1) Pressure: Minimum 200 to 350 psi operating pressure, plus 100 psi water hammer allowance.
- (2) Trench Loading: Laying Condition Type 3, depth of cover as shown on Drawings.

c. Metal Design Strength PSI (Minimum)

Tensile Strength	60,000
Yield Strength	42,000
Percent Elongation	10

d. Minimum Nominal Thickness

- (1) Minimum design thicknesses for 200 through 350 psi operating pressures, depths of cover, trench loading and other conditions shall be per ANSI/AWWA C150/ A21.50 specifications.

e. Lengths

- (1) Pipe may be furnished in 18 or 20 foot nominal laying lengths.

f. Marking

- (1) The net weight, class or nominal thickness, and casting period shall be shown on each pipe. The manufacturer's mark, the year in which the pipe was produced, and the letters "DI" or "DUCTILE" shall be cast or stamped on the pipe.

g. Weighing

- (1) Each pipe shall be weighed before application of lining or coating other than standard coating and the weight shown on the outside or inside of the bell or spigot end.

h. Spigot End of Pipe

- (1) The spigot end of the pipe shall be free of blemishes and defects which, in the opinion of the ENGINEER, might be responsible for a poor fit with the rubber ring gasket and result in leakage.

2. Fittings

a. General

- (1) Ductile iron mechanical joint, restrained joint and fittings shall conform to ANSI/AWWA C110/A21.10 Standard for Gray Iron and Ductile Iron Fittings – 3-inch through 48-inch. Mechanical joints and push on joints shall also conform in all respects to ANSI/AWWA C111/A21.11.
- (2) Ductile iron compact fittings, meeting the requirements of ANSI/AWWA C153/A21.53, will also be accepted.
- (3) Fittings shall be 350 psi pressure rating for sizes through 24-inch and shall be 250 psi rating for sizes above 24 inches unless a higher operating pressure is shown on the Drawings, and in such cases the fitting pressure rating shall be equal to or above the operating pressure. The pressure rating for all compact fittings shall be 350 psi.
- (4) Fittings shall be ductile iron meeting the above requirements and shall be furnished complete with all joint accessories.

b. Lining and Coating

- (1) All fittings shall be lined and coated the same as adjacent pipe.

3. Joints

a. General

- (1) Pipe joints shall be mechanical joint, rubber ring slip joint or restrained joint as shown on the Drawings.
- (2) All items used for jointing pipe shall be furnished with the pipe. The joints shall be made with tools and lubricant in strict conformity with the manufacturer's instructions. Copies of the instructions shall be delivered to the ENGINEER at start of construction in sufficient numbers that will permit the ENGINEER to retain 3 copies.

b. Mechanical Joints

- (1) Mechanical joints are to be furnished according to ANSI/AWWA C111/A21.11. All pipe joints must be furnished complete with all accessories. Mechanical joint bolts and nuts shall be of alloy cast iron or alloy steel (Corten type such as U.S. Alloy) or equal. Rubber gaskets shall be made of plain first grade rubber, free of imperfections and porosity. Hardness shall be 75 X 5 durometer.

c. Rubber Ring Slip Joint (Push On)

(1) Rubber ring slip joint shall be equal to ANSI/AWWA C111/A21.11. The joints shall be of the following materials and assembled in the sequence outlined below:

- (a) Rubber ring gasket compressed in groove in bell of pipe.
- (b) Beveled spigot end of pipe for initial centering into rubber gasket in bell.

d. Restrained Joints

(1) For Pipe

- (a) Restrained joint for push-on type bell with rubber O-ring shall meet the applicable requirements of ANSI/AWWA C 111/A21.11. The bell/spigot configuration for the restrained joint shall be such that restraint shall be provided for the joint based on a sustained pressure equal to the pressure class of the pipe.
- (b) The restrained joint shall allow the same deflection as standard push-on joint pipe.
- (c) Where field welding is required for restrained field cut pipe, the welder shall be properly instructed in the methods and materials for welding on ductile iron pipe.

(2) For Fittings

- (a) Where restrained joint fittings are called for, the bell configuration for the fittings shall be the same as for the pipe.
- (b) Where fittings with restrained joint bell configuration are not available, restrained materials for use with mechanical joint bell configurations shall be used as follows:
 - (i) Connect mechanical joint bell assemblies with stainless steel all-thread rods.
 - (ii) Install restraints glands on each side of the fitting. The restraining glands shall be "Meg-a-Lug," as manufactured by EBAA Iron Sales, Inc., of Eastland Texas; "Grip Ring," as manufactured by Romac Industries, Inc., of Seattle, Washington; or equal.

e. Special Gaskets

- (1) Where a water main is located within a 200-foot radius of an underground storage tank (UST), special rubber gaskets shall be provided for the water main joints.
- (2) These gaskets shall be manufactured of “nitrile rubber” material or other acceptable material possessing superior resistance to deterioration from petroleum based products.
- (3) This requirement will apply to the gaskets supplied for mechanical joints, restrained joints, and push-on joints when located within the 200-foot radius of a UST.
- (4) The cost of the special gasket shall be incorporated into the cost of the installed pipe.

4. Lining and Coating

a. Water Service

- (1) All ductile iron pipe for water service shall have manufacturer's standard outside bituminous or asphaltic base coating and a cement lining and bituminous seal coat on the inside. Cement mortar lining and bituminous seal coat inside shall conform to ANSI/AWWA C104/A21.4.

b. Sewer Force Main Service

- (1) All ductile iron pipe for sewer force main service shall be bituminous coated outside and shall be cement lined with seal coat on the inside per the above specifications.

c. Bitumastic Finish Coat

- (1) Only a coal tar outside coating, or other compatible coating, shall be applied to pipe which is to receive a bitumastic finish coat.

B. Ductile Iron Pipe-Flanged, Grooved and Special Coupling

1. Pipe

a. Flanged Pipe

- (1) Flanged pipe shall be made in accordance with ANSI/AWWA C115/A21.15 Specifications, and shall be thickness Class 53.
- (2) Where plain ends of flanged and plain end pipe fit into mechanical joint bells, centrifugally cast pipe shall be used.

b. Grooved Pipe

- (1) Where flanged ductile iron pipe is shown on the Drawings, grooved joint piping may be substituted where acceptable to the ENGINEER.
- (2) Grooved joint piping shall conform to ANSI/AWWA Specification C 606.

2. Fittings

a. Flanged Pipe

- (1) Flanged joint fittings shall conform to ANSI/AWWA C110/A21.10 Standard for Gray Iron and Ductile Iron Fittings- 3-inch through 48-inch.
- (2) Fittings shall be 250 psi pressure rating for all sizes unless a higher operating pressure is shown on the Drawings and in such cases the fitting pressure rating shall be equal to or above the operating pressure.
- (3) Fittings shall be ductile iron meeting the above requirements and shall be furnished complete with all joint accessories.

3. Joints

a. General

- (1) Pipe joints shall be as shown on the Drawings.
- (2) All items used for jointing pipe shall be furnished with the pipe. The joints shall be made with tools and lubricant in strict conformity with the manufacturer's instructions. Copies of the instructions shall be delivered to the ENGINEER at start of construction in sufficient numbers that will permit the ENGINEER to retain 3 copies.

C. Polyvinyl Chloride (PVC) Pipe (ASTM)

1. Pipe

- a. This Specification covers rigid polyvinyl chloride pipe and fittings, hereinafter called PVC pipe and PVC fittings, for sizes 3/4-inch through 12-inch.
- b. PVC pipe shall be extruded from Class 12454-B polyvinyl chloride material with a hydrostatic design stress of 2000 psi for water at 73.4 degrees Fahrenheit, designated as PVC 1120, meeting ASTM Specifications D 1784 for material. Three-fourths inch through 1-1/2 inch water service piping shall be PVC Schedule 40 as

specified in ASTM D 1785. Two inch through 12-inch pipe for water and sewage force main service shall be SDR 17 for 250 psi allowable working pressure at 73.4 degrees Fahrenheit and a safety factor of 2.0, as specified in ASTM D 2241.

- c. The pipe shall be homogeneous throughout and free from cracks, holes, foreign inclusions or other defects. The pipe shall be as uniform as commercially practical in color.
- d. The workmanship, pipe dimensions and tolerances, outside diameters, wall thickness, eccentricity, sustained pressures, burst pressures, flattening, extrusion quality, marking and all other requirements of ASTM D 2241 shall be conformed with in all respects.
- e. Pipe shall be furnished in 20-foot lengths. The pipe shall be plain end with bell on one end. Male ends of pipe must be beveled on the outside.
- f. Pipe shall have a ring painted around the male end in such a manner as to allow field checking of setting depth of pipe in the socket. This requirement is made to assist construction superintendents and inspectors in visual inspection of pipe installation.
- g. Pipe must be delivered to job site by means which will adequately support it, and not subject it to undue stresses. In particular, the load shall be so supported that the bottom rows of pipe are not damaged by crushing. Pipe shall be unloaded carefully and strung or stored as close to the final point of placement as is practical.
- h. Pipe must not be exposed to the direct rays of the sun for an extended period of time. If pipe is not to be installed shortly after delivery to the job site, it must be stored in a shaded location.

2. Fittings

a. Ductile Iron

- (1) Ductile iron mechanical joint or push-in type fittings with appropriate adapters may be used with exterior PVC pipe. All such fittings shall be approved by the pipe manufacturer, and complete data sent to the ENGINEER, including the manufacturer's approval, for review.

3. Joints

a. Exterior Buried Pipe - Slip Joint Type

- (1) Exterior buried pipe shall be jointed with slip-type joints with rubber gaskets.

- (2) Pipe with bell end shall have all parts of the bell, including the gasket groove, made from the same extruded piece, integral with the pipe, and shall be thickened to meet standard dimension ratios of wall thickness to outside diameter. The gasket groove shall be constructed such that gasket rollout will not occur. Rubber gasketing shall conform to ASTM D 3139.

D. Polyethylene Pipe for Water Mains and Force Mains

1. Pipe

a. General

- (1) Polyethylene pipe and fittings shall comply with the requirements of ASTM D 1248, D 1505, D 1693, D 1928, D 2657, D 3035, D 2837 and D 2321.

b. Resins

- (1) Only virgin polyethylene resins classified as Type III, Category 5, Grade P34 per ASTM D 3035 with densities of 0.955 p/cc maximum and melt index of 0.15 g/10 minutes maximum shall be used in the process of making the pipe. The resin shall contain antioxidants and be stabilized with carbon black.

c. Design

- (1) The pipe shall have a long-term strength rating of 1,600 psi or more and be resistant to environmental stress cracking per procedure C of ASTM D 1928 for not less than 200 hours. The maximum allowable deflection is 5 percent with the pipe installed in accordance with these Specifications, using backfill material at 130 pounds per cubic foot, H-20 live load plus 50 percent impact but no internal pressure. The live load and impact may be disregarded in the calculations for trench conditions with 8 feet or more cover. Operating pressures are shown on the Drawings. Hydrostatic loading shall be considered when the pipe is to be installed below a permanent water table or body of water.

d. Wall Thickness Calculations

- (1) The pipe manufacturer shall furnish calculations to support the pipe wall thickness for these various conditions for the ENGINEER'S review/acceptance before the materials are sent to the job site.

e. Quality

- (1) No cracks, holes, foreign material, blisters or other deleterious faults are permitted in the polyethylene pipe. It shall be homogeneous throughout including the heat fused joint. Polyethylene pipe will not be installed containing gouges or cuts that penetrate more than 10 percent of the wall thickness.

f. Marking

- (1) Each length of polyethylene pipe shall contain the manufacturer's brand name, pipe size and other data to enable an accurate tracing of the raw material source. Polyethylene pipe will not be installed containing gouges or cuts that penetrate more than 10 percent of the wall thickness.

2. Joints

a. Fusion

- (1) Polyethylene pipe shall be joined by the heat fusion welding process. Welding equipment may be either gas fired or electric as the CONTRACTOR may select. The welding equipment must be capable of attaining the temperature recommended by the manufacturer for the particular polyethylene extrusion used on the project.
- (2) The fusion equipment shall have hydraulic controls and gauges for monitoring fusion pressures. Also, an engine powered facing unit to trim the irregularities of the pipe ends shall be provided. The heated and thermostatically controlled plate shall contain a temperature gauge for monitoring the heat temperature throughout the fusion process.

b. Flange Adapters

- (1) Threaded or solvent weld joints and connections are not permitted. Flange adapters as manufactured by the pipe supplier shall be used, butt-fused to the pipe and connected to other pipe material using a rubber gasket for sealing.

2.02 MATERIALS-SERVICE LINE PIPE

A. Polyethylene Pipe for Water Service

1. Pipe

- a. Polyethylene flexible pipe (I.P.O.D. or PVC O.D.) for sizes 2-inch through 3-inch water service piping shall be PE 3408, Type III,

Grade P34 Class C, DR-9, OD Based for 200 psi working pressure at 73.4 degrees Fahrenheit, meeting ASTM Specification D 1248 for material, D 3350 for cell classification and AWWA C901 Specification for pipe.

- b. Polyethylene flexible pipe (copper pipe O.D.) for sizes 2-inch through 2-inch water service piping shall be PE 3408, Type III, Grade P34 Class C, DR, OD Based for 200 psi working pressure at 73.4 degrees Fahrenheit, meeting ASTM Specification D 1248 for material, D 3350 for cell classification and AWWA C901 Specification for pipe.
- c. Pipe shall meet all applicable provisions of the Commercial Standards and shall bear the National Sanitation Foundation (NSF) seal of approval.

2. Fittings

- a. Fittings shall be standard bronze fittings as specified for copper tubing in this Section of these Specifications.

2.03 SERVICE CONNECTIONS

A. General

1. All service connections shall be made by means of tees, factory tapped couplings, or bronze service clamps manufactured specifically for use with the pipe upon which it is to be installed. Whenever possible, corporation stops shall be placed in the service connection prior to conduction hydrostatic tests on the mains.

B. Service Clamps

1. Service clamps for use on ductile iron mains shall be bronze, double strap, Mueller BR 2 B Series, Ford, or equal.
2. Service clamps for use on PVC and polyethylene pipe shall be bronze, wide strap, 2 piece for 2-inch through 8-inch mains, Ford S912 or equal.

2.04 SOURCE QUALITY CONTROL

A. Ductile Iron Pipe (Mechanical Joint and Rubber Slip Joint Type)

1. Hydrostatic and physical properties acceptance tests shall be in accordance with ANSI/AWWA Specification C151/A21.51 for ductile iron pipe centrifugally cast in metal molds or sand lined molds for water or other liquids.
2. The ENGINEER shall be provided with sufficient copies of each of the tests for each Contract to permit the ENGINEER to retain 3 copies.
3. All items used for jointing pipe shall be tested before shipment.

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B. Polyvinyl Chloride (PVC) Pipe (AWWA)

1. The manufacturer shall furnish an affidavit that all delivered materials comply with the requirements of this Specification.
2. Each length of pipe shall be proof tested at four times its rated class pressure.

C. Polyvinyl Chloride (PVC) Pipe (ASTM)

1. Samples of pipe and physical and chemical data sheets shall be submitted to the ENGINEER for review and acceptance before pipe is delivered to job.
2. Samples of solvents and the recommended instruction for their use must be submitted for the ENGINEER'S review and acceptance before delivery of solvent to the job.

D. Polyethylene Pipe for Water Mains and Force Mains

1. Results of tests on the raw materials and the polyethylene pipe in accordance with ASTM standards and the Plastic Pipe Institute shall be furnished along with catalogs and other descriptive literature in the number of copies required by the listing in Section 00700 before the materials are sent to the job site.

PART 3 EXECUTION

3.01 TRENCH EXCAVATION-WATER AND SEWAGE FORCE MAINS

A. General

1. Trenching shall include all clearing and grubbing, including all weeds, briars, trees and stumps encountered in the trenching, regardless of size. The CONTRACTOR shall dispose of any such material by burning, burial or hauling away or as noted on the Drawings, at no extra cost to the OWNER. Ornamental shrubs, hedges and small trees (3 inches in diameter or less) shall be removed, protected and replanted, at no extra cost to the OWNER.
2. Trenching also includes such items as railroad, street, road, sidewalk, pipe and small creek crossings; cutting, moving or repairing damage to fences, poles or gates and other surface structures, regardless of whether shown on the Drawings. The CONTRACTOR shall protect existing facilities against danger or damage while pipeline is being constructed and backfilled or from damage due to settlement of the backfill.
3. In case of "unclassified excavation," as designated in the Drawings and/or Specifications, the price bid shall include earth, solid rock, roots, street or road surfacing and base concrete and boulders.

4. All excavation shall be open trenches, except where the Drawings call for tunneling, boring or jacking under structures, railroads, sidewalks, roads or highways.

B. Trees and Shrubs

1. Where pipelines run through wooded terrain, cutting of trees within limits of maximum permissible trench widths, as set forth in this article, will be permitted. However, cutting of additional trees on sides of trench to accommodate operating of trenching machine will not be permitted. The CONTRACTOR shall obtain specific permission of the OWNER before cutting any tree larger than 4 inches in diameter.

C. Highways, Streets and Railroads

1. Construction equipment injurious to paving encountered shall not be used. Curbs, sidewalks, and other structures shall be protected by the CONTRACTOR from damage by his construction equipment.
2. Where trenching is cut through paving which does not crumble on edges, trench edge shall be cut to at least 2 inches deep to straight and neat edges, before excavation is started, and care taken to preserve the edge to facilitate neat repaving.
3. The CONTRACTOR shall so coordinate his work as to produce a minimum of interference with normal traffic on highways and streets. He may, with the approval of the governing agency, close a street to traffic for such length of time considered necessary, provided persons occupying property abutting the street have an alternate route of access to the property which is suitable for their needs during the time of closure. It shall be the responsibility of the CONTRACTOR to give 24 hours advance notice to fire and police departments and to occupants of a street which will be closed, in a manner approved by the governing body.
4. The CONTRACTOR shall maintain road crossings in a passable condition for traffic until the final acceptance of the work, being paid only by unit price for crushed rock used, within limitations as hereinafter specified.
5. The amount of crushed stone placed shall be paid for at the unit price per ton up to the maximum limits of 225 pounds per linear foot of trench over which it is placed for pipe sizes through 16 inches, 300 pounds per linear foot for pipe sizes 18 inches through 24 inches and 400 pounds per linear foot for sizes 27 inches through 48 inches. The ENGINEER shall have control of thickness and width to be placed and paid for, and may order changes in depth and width as conditions dictate. No payment will be made for crushed rock surfacing required as a result of unnecessarily wide trenches, omission of sheeting and shoring, or damage by the CONTRACTOR'S equipment, or for maintenance of surface level.
6. Railroad and Highway Department requirements in regard to trenching, tunneling, boring and jacking shall take precedence over the foregoing

general specifications and the tunneling and boring or jacking specifications, where they are involved. Where work is within railroad right-of-way, Railroad Protective Insurance shall be carried by the CONTRACTOR in the amounts required by the Railroad Company.

7. The insurance policy shall name the railroad as the insured and the original policy shall be delivered to the railroad after submitting same to the OWNER for review. The cost of flagmen required by the railroad and highway departments and railroad inspectors shall be paid by the CONTRACTOR.
8. Uneven surfaces or humps in the ground encountered and high driveways and road crossings shall be dug through to such depth that pipe may be laid to a reasonably even grade and have minimum cover at the low places. Such places requiring extra depths shall be included in the bid and no extra payment will be made for such extra depths required, which are evident from an examination of the ground before bidding, as required for 1 foot cover over valve nuts, or are indicated on the Drawings.

D. Existing Utilities

1. The CONTRACTOR shall determine, as far as possible in advance, the location of all existing sewer, culvert, drain, water, electric, telephone conduits, and gas pipes, and other subsurface structures and avoid disturbing same in opening his trenches. In case of sewer, water and gas services and other facilities easily damaged by machine trenching, same shall be uncovered without damage ahead of trenching machine and left intact or removed without permanent damage ahead of trenching and restored immediately after trenching machine has passed, without extra cost to the OWNER. The CONTRACTOR shall protect such existing facilities, including power and telephone poles and guy wires, against danger or damage while pipeline is being constructed and backfilled, or from damage due to settlement of his backfill. It shall be the responsibility of the CONTRACTOR to inform the customers of utilities of disruption of any utility service as soon as it is known that it has been or will be cut off.
2. The CONTRACTOR shall, at all times during trenching operations, carry a stock of pipe and fittings likely to be needed for replacement of pipelines to facilitate immediate repair.

E. Pipelines in Same Trench

1. Pipelines, force mains, and sewers laid in same trench shall, in all cases, be bedded on original earth, or other specified bedding materials, regardless of divergence in their elevations, unless otherwise specified. They shall never be laid in unsupported backfill or one above the other. The CONTRACTOR shall receive full trenching and backfilling unit prices for each pipeline, force main, and sewer so laid, the same as if laid in widely separated trenches.

F. Location of Proposed Pipelines

1. The location of pipelines and their appurtenances as shown are those intended for the final construction. However, conditions may present themselves before construction on any line is started that would indicate desirable changes in location. Also, development of property traversed may require location changes. In such cases, the OWNER reserves the right to make reasonable changes in line and structure locations without extra cost, except as may be determined by the application of the unit prices bid to the quantities actually involved. The OWNER is under no obligation to locate pipelines so that they may be excavated by machine.

G. Trench Requirements

1. All trenches must be dug neatly to lines and grades.
2. The opening of more than 500 feet of trench ahead of pipe laying and more than 500 feet of open ditch left behind pipe laying, before backfilling, will not be permitted, except upon written consent of the OWNER. No trench shall be left open or work stopped on same for a considerable length of time. In case of objectionable delay trench shall be refilled according to backfill specifications.
3. Where subgrade of trench has insufficient stability to support the pipeline and hold it to its original grade, the ENGINEER may order stabilization by various means. Exclusive of dewatering normally required for construction and instability caused by neglect of the CONTRACTOR, it shall be paid for at unit prices set up in the Contract, such as extra excavation, crushed rock for pipe bedding, concrete cradle or piling.
4. Excavation for pipe laying must be made of sufficient width to allow for proper jointing and alignment of the pipe, but not greater than the maximums permitted in the following table:

MAXIMUM TRENCH WIDTH AT TOP OF PIPE

Nominal Pipe Size (Ins.)	Trench Width (Ins.)	Nominal Pipe Size (Ins.)	Trench Width (Ins.)
4	28	20	44
6	30	24	48

5. Trenches in earth or rock shall be dug as shown on the Drawings and be sufficiently deep to insure a 30-inch minimum cover over water lines and force mains, as noted on the Drawings. Depths of trenching shall also be adequate for at least 1 foot minimum cover over valve nuts. In order to eliminate the necessity for digging bell holes into the trench subgrade by hand and to insure an earth cushion under the pipe for uniform bearing, trench depth shall be the cover requirement plus outside diameter of

barrel of pipe plus the required bedding cushion. The cushion construction requirement shall also apply to tunnels.

6. Wherever it is deemed necessary by the ENGINEER to lay the pipes to an extra depth exceeding the depths required by the Drawings and Specifications and not apparent from unevenness of ground, the CONTRACTOR will be paid for such excavation under extra excavation in earth at the price bid per cubic yard, computed on the basis of maximum trench widths in the preceding table. In unclassified excavation contracts the same width limitations will apply.
7. Trench line stations and locations of accessories will be set ahead of the trenching. These will be set at least each 100 feet of pipeline. Trenches must be dug true to alignment of stakes. Alignment of trenches or pipes in trench must not be changed to pass around obstacles such as poles, fences and other evident obstructions without the permission of the ENGINEER. Lines will be laid out to avoid obstacles as far as possible, contingent with maintenance of alignment necessary to finding pipeline in the future and avoiding obstruction to future utilities.

H. Damage to Existing Structures

1. Hand trenching is required, at no extra payment, where undue damage would be caused to existing structures and facilities by machine trenching.
2. In case of damage to any existing structures, repair and restoration shall be made at once and backfill shall not be replaced until this is done. In all cases, restoration and repair shall be such that the damaged structure will be in as good condition and serve its purpose as completely as before, and such restoration and repair shall be done without extra charge, except as set forth under the applicable provisions of the General and Special Conditions. Where there is the possibility of damage to existing utility lines by trenching machine, the CONTRACTOR shall make hand search excavation ahead of machine trenching, to uncover same, at no extra cost to the OWNER.

I. Excavation Unclassified

1. Excavation for pipelines shall be unclassified and the cost of all excavation of whatever nature and state, including solid rock, shall be included in the CONTRACTOR'S unit price bid for furnishing, trenching, laying and backfilling the pipe.
2. Excavation for structures such as manholes, pump stations, and vaults is likewise unclassified and the cost of all excavation of whatever nature and state, including solid rock, shall be included in the CONTRACTOR'S lump sum or unit price bid, as the case may be.

J. Dewatering of Trenches

1. Dewatering of trenches shall be considered a part of trenching, at no extra cost to the OWNER. Dewatering of trenches shall include groundwater and storm or sanitary sewage. Suitable pumping and other dewatering equipment is to be provided by the CONTRACTOR, to insure the installation of the pipeline structure in a dewatered trench and under the proper conditions. Dewatering shall include all practical means available for prevention of surface runoff into trenches and scouring against newly laid pipe.
2. Piles of excavated materials shall be trenched or temporarily piped to prevent, as far as practical, blockage of drainage ditches and gutters, and water carriage of excavated materials over street and highway surfaces.

3.02 LAYING WATER AND SEWAGE FORCE MAINS

A. General

1. Inspection of Materials
 - a. All pipe, fittings and accessories shall be subject to an inspection by the OWNER at the job site. Any damaged materials shall be repaired or replaced to the satisfaction of the OWNER. Should repairs to the piping materials be necessary, then same shall be made in the presence of the ENGINEER using proven methods prescribed by the pipe manufacturer.
 - b. The OWNER'S inspection of materials shall in no way relieve the CONTRACTOR of his responsibility.
2. Laying Requirements
 - a. Water and sewage force main pipe shall be laid to lines, cover or grades shown on the Drawings.
 - b. Pipes must be swabbed out before lowering into trench. In the case of pipelines 4 inch through 20 inch, a swab must also be dragged through the pipe after it is in place. Larger size pipe shall be visually inspected for cleanliness and proper jointing.
 - c. The points insisted upon in the laying of pipe will be: Proper alignment, evenness of width and depth of joints, perfection in jointing, and care of the pipe in handling.
 - d. Precautions must be taken to prevent flotation of the pipe should water enter the trench prior to putting the pipeline into operation.
 - e. In wet, yielding and mucky locations where pipe is in danger of sinking below grade or floating out of grade or alignment, or where the backfill materials are of such a fluid nature that such movements of the pipe might take place during the placing of the

backfill, the pipe must be weighted or secured permanently in place by such means as will prove effective. If crushed rock fill beneath the pipe is necessary for stability, it will be paid for at the unit price bid per ton of such material in place except in cases where instability is caused by neglect of the CONTRACTOR.

- f. Whenever pipe laying is stopped, the end of the pipe shall be securely plugged with the manufacturer's standard plug held in place by bracing and/or blocking.
- g. Elbows, plugs, dead end valves, and tees shall be firmly blocked, as shown on the Drawings, to prevent internal pressure from springing the pipe from the intended alignment, with permanent materials solidly placed without covering pipe joints. Restrained type pipe joints may be substituted for thrust blocks with the ENGINEER'S permission. Pipe shall be free of all structures, other than manholes, vaults or planned entries into other structures.
- h. No pipe shall be laid resting on solid rock, blocking or other unyielding objects. Jointing before placing in the trench and subsequent lowering of more than one section jointed together may be allowed, subject to the ENGINEER'S permission.
- i. For PVC and polyethylene pipe, there shall be installed with the pipe #12 AWG insulated wire for the entire length of the pipeline. The wire shall be installed on top of the 12-inch initial backfill and weighted at locations along the wire sufficient to prevent dislodgement during the backfilling process. The wire shall be accessible at valve boxes or at locator stations along the route of the pipeline, as shown on the Drawings.
- j. Concrete line markers shall be installed at property lines or at bends in the pipeline. Markers may be long markers or short markers as shown on the Drawings or as called for in these Specifications.
- k. Fiberglass line markers shall be installed at valve locations or at locations as shown on the Drawings. Fiberglass markers shall be Carsonite Utility Marker, Style No. 375, or approved equal. Markers shall be equipped with the OWNER'S standard logo.

B. Laying Ductile Iron Pipe

1. Bedding and Backfilling

- a. The laying condition shall be Type 3 specified in ANSI/AWWA C600. The pipe shall be bedded in 4 inches minimum loose soil and the hand placed loose soil backfill lightly consolidated to the top of the pipe. "Loose soil" or "select material" is defined as native soil excavated from the trench, free of rocks, foreign materials and frozen earth.

- b. The selected material shall be hand placed to a point 12 inches above the barrel of the pipe. After the specified backfill is hand placed, rock may be used in machine placed backfill in pieces no larger than 8 inches in any dimension and to an extent not greater than 1/2 the volume of the backfill materials used.
- c. The top 12 inches of backfill shall contain no rock over 1-1/2 inches in diameter nor pockets of crushed rock.
- d. Larger rock fill will be allowed in wide trenches where side slopes are low enough to prevent rock from dropping over pipeline. If additional earth is required, it must be obtained and placed by the CONTRACTOR. Filling with rock and earth shall proceed simultaneously, in order that all voids be filled with earth.
- e. If select material is not available from the trench excavation, or if the CONTRACTOR so desires, he may use crushed stone bedding and backfill to the top of the pipe at no extra cost to the OWNER.
- f. Sufficient space, limited to a maximum of 2 feet length, shall be left out of the specified earth or crushed stone bedding to facilitate proper jointing of the pipe.

2. Installation of Pipe

- a. Ductile iron pipe shall first be thoroughly cleaned at joints, then joined according to instructions and with tools recommended by the pipe manufacturer. Sufficient copies of the manufacturer's installation instructions shall be furnished the ENGINEER to permit the ENGINEER to retain 3 copies. One copy shall be available at all times at the site of the work.
- b. All pipes must be forced and held together or "homed" at the joints before bolting. Pipe must be aligned as each joint is placed, so as to present as nearly true, straight lines and grades as practical, and all curves and changes in grades must be laid in such manner that 1/2 of the maximum allowable deflection shown in the pipe manufacturer's catalog is not exceeded.
- c. Concrete blocking of fittings shall be as specified hereinafter in this Specification Section 02610.
- d. Cutting of pipe may be done by special pipe cutters as the CONTRACTOR may elect, but the CONTRACTOR will be held responsible for breakage or damage caused by careless cutting or handling. Cut edges of the pipe shall be made smooth and a bevel formed on the exterior of the pipe barrel when using rubber gasket type pipe.

C. Laying Plastic Pipe

1. Bedding and Backfill

- a. The pipe shall be bedded in 4 inches minimum depth (for pipe sizes through 16 inches) of "loose soil" or "select material" meeting the requirements of Class II or III of ASTM D 2321. For pipe sizes greater than 16 inches in diameter, the pipe bedding shall be a minimum depth of one-fourth the pipe diameter or 6 inches minimum.
- b. Similar material shall be used for haunching up to the spring line of the pipe and it shall be worked under the haunch of the pipe to provide adequate side support. The same material shall then be hand placed to a point 12 inches above the top of the pipe.
- c. After the placement of each lift of the Class II or III bedding, haunching and initial backfill material, the material shall be compacted to 85 percent and/or 90 percent Standard Proctor Density, respectively.
- d. The remaining backfill, except for the top 12 inches which shall contain no rock over 1-1/2 inch diameter nor pockets of crushed rock, may be excavated material containing no rock over 8 inches in any dimension. Larger rock will be allowed in wide trenches where side slopes are low enough to prevent rock from dropping over pipeline. If additional earth is required, it must be obtained and placed by the CONTRACTOR. Filling with rock and earth shall proceed simultaneously, in order that all voids may be filled with earth.
- e. In trenches in solid rock or where flowing water is present, crushed stone bedding and backfill to 12 inches above the top of the pipe shall be substituted for the select material. Kentucky Department of Highways No. 9 stone shall be used for pipe up to 16 inches in diameter.
- f. If select material is not available from the trench excavation, or if the CONTRACTOR so desires, he may use crushed stone bedding and backfill to a point 12 inches above the top of the pipe at no extra cost to the OWNER.
- g. Sufficient space, limited to a maximum of 2 feet length, shall be left out of the bedding to facilitate proper jointing of the pipe.
- h. No pipe shall be laid resting on solid rock, blocking, or other unyielding objects. Jointing before placing in the trench and subsequent lowering of more than one section may be allowed subject to the ENGINEER'S permission.

2. Installation of Polyvinyl Chloride (PVC) Pressure Pipe
 - a. Prior to laying, all PVC pipe shall be stored in a shaded place for protection from the direct rays of the sun. Pipe shall be distributed from storage as the work progresses as permitted by the ENGINEER.
 - b. The pipe, fittings, and valves shall be placed in the trench with care. Under no circumstances shall pipe or other materials be dropped or dumped into the trench. The pipe shall not be dragged in a manner which would cause scratching of the pipe surface. An excessive amount of scratching on the surface of the pipe will be considered cause for rejection.
 - c. Sufficient copies of the pipe manufacturer's instructions for installing the pipe and accessories shall be furnished the ENGINEER by the CONTRACTOR to permit the ENGINEER to retain 3 copies. A copy is to be available at the job site at all times.
 - d. Concrete blocking of fittings, as hereinafter specified, shall be required for PVC pipe with slip joints and rubber gaskets.
 - e. All dirt, dust and moisture shall be removed from the bell and spigot ends of pipes to be jointed. Insert gasket in bell. Apply the lubricant to spigot and gasket being careful to keep both ends free of dirt. The joint shall be homed to stop mark on spigot end of pipe. All jointing shall be done in accordance with pipe manufacturer's recommendations.
 - f. All cutting of the pipe shall be done in a neat and workmanlike manner with the least amount of waste of pipe involved and without damage to existing or new lines. A fine tooth saw, tubing cutter or similar tool can be used to cut the pipe. Cut must be square and ragged edges removed with a cutting tool and/or file. A bevel or taper on the exterior of each spigot is required.
3. Installation of Polyethylene Pressure Pipe
 - a. Polyethylene pipe for water lines or force mains shall be joined using tools and equipment specifically manufactured for use with polyethylene pipe. Heat fusion temperature, heating time and cooling time shall be per the pipe manufacturer's requirements. Pouring of water on completed joints to speed cooling will not be allowed.
 - b. The pipe shall be snaked into the trench, employing the natural snaking tendency of the pipe. All short radius bends shall be made with fittings rather than bending the pipe. The pipe will be rejected if it contains kinks and gouges or gouges/cuts penetrating to a depth of 10 percent of the wall thickness.

- c. Sufficient copies of the pipe manufacturer's instructions for installing the pipe and accessories shall be furnished the ENGINEER by the CONTRACTOR to permit the ENGINEER to retain 3 copies. A copy is to be available at the job site at all time.
 - d. Because of the high coefficient of expansion of polyethylene, the pipe shall not be attached to rigid structures at the ends until at least 48 hours have elapsed after backfilling and the pipe temperature has had an opportunity to stabilize.
4. Installing Polyethylene Pipe for Water Service
- a. The pipe shall be bedded in 4 inches minimum of loose soil and the hand placed backfill lightly consolidated to a depth of 12 inches above the top of the pipe. "Loose soil" or "select material" is defined as native soil excavated from the trench, free of rocks, foreign materials and frozen earth. The machine placed backfill may contain rock no larger than 8 inches in any dimension and to an extent no greater than 2 the volume of backfill materials used. The top 12 inches of backfill shall contain no rocks over 1-1/2 inches in diameter nor pockets of crushed rock.
 - b. Polyethylene pipe for water services shall have the same outside diameter as copper tubing and shall be compatible for flared compression fittings. The joints to brass fittings shall be made by cutting the pipe with a tube cutter, keeping it clean and square, thence flaring the pipe and completing the joining in accordance with the manufacturer's instructions (a copy of the instructions shall be at the job site at all times). All joints shall be tested and all leakage stopped before backfilling the pipe trench.
 - c. The pipe shall be snaked into the trench, employing the natural snaking tendency of the pipe. All short radius bends shall be made with fittings rather than with the pipe alone. The pipe shall be bent to a radius of not less than 12 inches.
 - d. The pipe will be rejected if it contains kinks and gouges.

D. Installation of Water Service Accessories

- 1. Water Service Meters
 - a. Water service meters and accessories shall be installed as shown on the Drawings, with meter box centered over the meter.
 - b. The location of water service connections will be determined in the field, as the work progresses, thereby necessitating the use of pipe saddles and the appropriate tapping equipment. Earth backfill shall be thoroughly tamped around meter boxes to prevent subsequent movement.

2. Air Valves and Corporation Stops

- a. The location of air valve assemblies, while being noted on the Drawings, could possibly be shifted in actual construction. For this reason, the same statements relative to the methods of installation of meters and water service connections apply to the installation of air valve assemblies. Air valve assembly boxes shall be installed in the same manner as water meter boxes except that the box will be located slightly off center of the air valve, in order to give better access to the stopcock between the valve and water main.
- b. Corporation stops, as shown on the Drawings, are required between the water main and the meter, and between the main and the air valve assembly.

E. Installation of Fire Hydrants

1. Fire hydrants shall be installed in the general location as shown on the Drawings. Exact location shall be determined in the field. Hydrants shall be set such that the lowest nozzle shall be high enough above the ground to allow the uninhibited 360° swing of a 15-inch hydrant wrench.
2. Hydrant drainage pits shall be excavated below the hydrant to the depth shown on the Drawings. Crushed stone drainage media shall be of the size shown on the Drawings. Hydrant shall be set vertical and anchored as hereinafter specified.
3. Hydrants installed on this project shall be anchored to prevent the hydrant from blowing off the feeder line when suddenly opened or closed. Likewise, the hydrant pilot valve shall be anchored to prevent blowoff when the hydrant is removed. The CONTRACTOR shall anchor the hydrant and pilot valve utilizing one of the following procedures:
 - a. Where the hydrant is located immediately adjacent to the water main, install all thread rods from the main line branch tee to the valve inlet and from the valve outlet to the mechanical joint of the hydrant inlet piece.
 - b. Provide locked mechanical joint and/or restrained joint piping from the main to the hydrant including the main line tee.
 - c. Use method a or b from the water main to the pilot valve and provide a concrete thrust block on the hydrant.
 - d. Method b may not be used when the hydrant feed line is PVC pipe.
4. The additional cost of providing all-thread rods, locked mechanical joint pipe and fittings, restrained joint pipe and fittings, and/or the concrete thrust block at the hydrant shall be included in the CONTRACTOR'S unit price bid for the hydrant.

F. Blocking of Pipe at Bends and Ends

1. Horizontal Bends

- a. Concrete backing and/or blocking required at bends in the horizontal plane shall be accomplished per detail on the Drawings. The square footage of blocking area shall be obtained from Tables "A" and "B" through the following procedure:

Step No. 1 - From Table "A," select type soil and bearing area factor for particular fitting to be blocked.

Step No. 2 - From Table "B," select multiplier to be used for the size pipe being blocked and its test pressure.

Step No. 3 - Calculate actual bearing area required by multiplying bearing area factor from Table "A" by multiplier from Table "B" (e.g. - 16 inch tee with 250 psi test pressure in sandy clay - $9.42 \times 1.78 = 16.7$ S.F. of bearing area required). Bearing area shall in no case be less than the minimum shown in Table "B."

TABLE "A"

Type Soil	Soil Bearing Pressure (PSF)	Bearing Area Factor for Degree of Bend (Square Feet)				
		90°	Plug/Tee	45°	22 1/2°	11 1/4°
Sandy Clay	3,000	13.33	9.42	7.21	3.68	1.85
Hard Clay	6,000	6.66	4.71	3.61	1.84	0.92
Shale	12,000	3.33	2.36	1.80	0.92	0.46
Solid Rock	16,000	2.50	1.77	1.35	0.69	0.35

TABLE "B"

Pipe Dia. (In.)	Min. Bearing Area (S.F.)	Multiplier for Pipe Test Pressure (TP)						
		(TP)	(TP)	(TP)	(TP)	(TP)	(TP)	(TP)
		350 psi	300 psi	250 psi	200 psi	150 psi	100 psi	50 psi
4	1.0	0.16	0.13	0.11	0.09	0.07	0.04	0.02
6	1.0	0.35	0.30	0.25	0.20	0.15	0.10	0.05

- b. Consideration will be given to the use of restrained type mechanical joint pipe and fittings in lieu of concrete blocking. Use of the restrained joint pipe and fittings is subject to review and acceptance by the ENGINEER of the locking-method and adequacy of design for pressures involved.

2. Vertical Bends

- a. The use of vertical bends in lieu of extra depth trenching shall be subject to permission by the ENGINEER.
- b. Where the CONTRACTOR elects to use vertical bends, or where vertical bends are called for on the Drawings, the CONTRACTOR shall submit the blocking design, including calculations, to the ENGINEER for review and acceptance. Anchorages shall be designed to resist thrusts caused by the internal test pressure in the pipe. Protection against corrosion shall be inherent in the design.

G. Supplemental Backfilling Information

1. General

- a. Excavated materials from trenches, tunnels, and structure excavation in excess of quantity required for trench backfill or site regrade, shall be disposed of by the CONTRACTOR. It shall be the

responsibility of the CONTRACTOR to obtain location or permits for its disposal. The price bid for trench excavation and backfill, or site excavation and regrade, shall include the cost of disposition of excess excavated materials, as set forth herein, with no additional compensation being allowed for hauling.

- b. For water line and sewage force main contracts where sod is destroyed in areas maintained equivalent to residence yards, it shall be replaced on slightly ridged backfill on trench, and where destroyed in areas adjacent to the trench, it shall be replaced by the CONTRACTOR with fresh sod, all of which will be paid for at a unit price bid per foot of pipeline. The timing of resodding shall be controlled by the ENGINEER. Ground shall be prepared and fertilized as herewith specified for seeded areas. In small patches, supplying of 3 inches of topsoil and raking may be substituted for disking.
- c. For plant or site based contracts, sodding shall be placed to the extent shown on the Drawings. Refer to Section 02930 of these Specifications for detailed instructions for the placement of sod. The cost for sodding of site based areas shall be included in the lump sum bid for the project.
- d. Where pastures, thin grass or cover crops are destroyed by trenching, laying, backfilling, or tunneling operations, surface shall be prepared by disking, fertilizing, and seeding, as specified in Section 02930. Seeding and fertilizing shall be included in the price for trenching and backfilling. The timing of this operation shall be controlled by the ENGINEER. Requirements of the Department of Highways for reseeding shall take precedence over these Specifications where they are involved.
- e. No extra charge shall be made for backfilling of any kind, except as specified. Backfilling shall be included as a part of the price for trenching. No extra charge shall be made for supplying outside materials for backfill except where fills above existing ground are necessary and payment is designated on Drawings or in Specifications. If backfilling of the trench or surface restoration is not properly completed, a proportionate part of the unit price for trenching shall be retained from payment estimates.
- f. Before completion of the Contract, all backfills shall be reshaped, holes filled, and surplus materials hauled away and all permanent walks, street, driveways, and highway paving and sod replacement (if such surface replacement items are included in the Contract) and reseeding performed.
- g. Backfill material must be uniformly ridged over trench, and excess hauled away. Ridged backfill shall be confined to the width of the trench and not allowed to overlap onto firm original earth, and its

height shall not be in excess of needs for replacement of settlement of backfill.

- h. All rock, including crushed rock or gravel from construction, must be removed from yards and fields. Streets and walks shall be broomed to remove all earth and loose rock immediately following backfilling.

2. Special Requirements

- a. In case of street, highway, railroad, sidewalk and driveway crossings or within any roadway paving, or about manholes, valve and meter boxes located in such paving, the following backfill material and procedure is required.
- b. The pipe shall be bedded in 4 inches minimum depth (for pipe sizes through 16 inches) of crushed rock meeting the requirements of the Kentucky Department of Highways standard size No. 9. For pipe sizes greater than 16 inches in diameter, the pipe bedding shall be a minimum depth of 1/4 the pipe diameter and be of the material and gradation specified previously.
- c. Similar material shall be used for haunching up to the spring line of the pipe, and it shall be worked under the haunch of the pipe to provide adequate side support. The crushed rock shall then be hand placed to a point 12 inches above the top of the pipe.
- d. After the above bedding and selected backfill have been placed, fill trench to within 6 inches of the surface with Kentucky Department of Highways No. 57 crushed stone, uniformly distributed, or other gradation acceptable to the ENGINEER. In order to accommodate compacted temporary surfacing it may be necessary to bulkhead or otherwise confine the stone fill at the open end of the trench.
- e. Temporary surfacing of street, highway, railroad, sidewalk and driveway crossings, or within any roadway paving, or about manholes, valve and meter boxes located in such paving, shall consist of 6 inches compacted dense graded aggregate as specified under Section 02235 for temporary walkway or road surfacing, placed and compacted in the trench. Compaction shall be accomplished by methods which shall be sufficient to confine stone to the trench under normal traffic. Backfills shall be maintained easily passable to traffic at original paving level until acceptance of project or replacement of paving or sidewalks.
- f. Railroad Company and Department of Highways requirements in regard to backfilling will take precedence over the above general specifications where they are involved.

H. Cut-Ins, Tie-Ins, and Cutting and Plugging

1. The OWNER shall not be responsible for extra costs of cut-ins, tie-ins, cutting and plugging, due to water not being entirely cut off by the existing water main valves.
2. A cut-in is defined as the removal of one section of existing pipeline (2 cuts of pipe) and insertion of one or more new pipeline connections therein.
3. A tie-in is defined as the removal of an existing plug or cap and the connecting of the new pipeline into the existing pipeline or fitting or valve at the joint opened by such removal.
4. A cutting and plugging is defined as the cutting and installation of a plug in an existing line.

3.03 FIELD QUALITY CONTROL

A. Testing Polyvinyl Chloride (PVC) Pressure Pipe During Construction Period

1. Prior to pressure testing the pipe shall be center loaded with backfill to prevent arching and whipping under pressure. Center loading shall be done carefully so that joints will be completely exposed for examination during testing unless conditions warrant complete backfill before testing.
2. During the general construction period the following pressure testing procedure shall be followed (on sections that can be separately isolated):
 - a. After the PVC pipe is assembled in the trench a test of not more than 30 percent above the system's anticipated working pressure shall be applied with either air or water. After 2 consecutive tests have been performed without any failure, the CONTRACTOR at his option and with the ENGINEER'S permission may discontinue testing until the system is completed. Testing shall then be performed as outlined herein in this Section.

B. Testing Water and Sewage Force Main Piping for Leakage

1. The CONTRACTOR will be required to test all pipelines and appurtenances with water. The maximum test pressure, measured at the lowest elevation of the pipeline being tested, shall be the pressure class of the pipe unless a specific test pressure is shown on the Drawings.
2. Prior to testing, the line shall be filled with water and any entrapped air in the line removed. This may be accomplished at a service tap for water service or air release valve. In any case, the CONTRACTOR shall be responsible for removal of air from the system at no additional cost to the OWNER.

3. When the line or section being tested is pumped up to the required pressure, it shall be valved off from the pump and a pressure gauge placed in the line. The pressure drop in the line, if any, shall be noted. If no pressure drop is noted in 4 hours, the ENGINEER, at his discretion, may accept the line or section as being tested, or he may require the test run the full 24 hours.
4. At the end of the 24 hour test period, the pressure shall be recorded. If there is a drop in pressure, the CONTRACTOR will be required to pump the section being tested up to initial test pressure and maintain that pressure for 24 hours, measuring the amount of water required to accomplish this. The line will not be accepted until the leakage shall prove to be less than 10 gallons per inch diameter per mile of pipe per 24 hours. The 24 hour test shall be charted by timed pressure recorder.
5. Should there be leakage over the allowable amount, the CONTRACTOR will be required to locate and repair the leaks and retest the section.
6. If the leakage of a section of pipeline being tested is below the allowable amount, but a leak is obvious, in the opinion of the ENGINEER, due to water at the surface of the ground, or any other means of determining a leak, the CONTRACTOR will be required to repair those leaks.
7. The CONTRACTOR shall furnish meter and suction tank, pipe test plugs, and bypass piping, and make all connections for conducting the above tests. The pumping equipment used shall be centrifugal pump, or other pumping equipment which will not place shock pressures on the pipeline. Power plunger or positive displacement pumps will not be permitted for use on closed pipe system for any purpose.
8. Inspection of pipe laying shall in no way relieve the CONTRACTOR of the responsibility for passing tests or correcting poor workmanship.

C. Disinfection (Water Mains and Services)

1. Upon completion of the work and cleaning up, and prior to final acceptance, the CONTRACTOR shall disinfect all water lines constructed which are to carry treated water.
2. Prior to starting disinfection, all water mains must be thoroughly flushed to remove mud, rocks, etc. Disinfection will then be accomplished by the adding of a chlorine solution while filling the main to obtain the initial 50 ppm of chlorine. The CONTRACTOR shall supply all equipment, labor, etc., necessary for flushing and disinfecting the mains. The CONTRACTOR shall submit, in writing, to the ENGINEER, the method he proposes to use for adding the chlorine.
3. The calcium hypochlorite granule or tablet method shall not be used. The placement of small amounts of disinfectant material in the main during construction will not be allowed.

4. Disinfection shall be accomplished by filling the new and/or repaired portions of the system with water having a chlorine content of at least 50 parts per million and at the end of a 24 hour contact time a residual of at least 25 parts per million shall remain. At the end of the 24 hour contact period, all the sterilized surfaces and areas shall be thoroughly flushed from the water system. Chlorinated water shall be disposed of in accordance with 401 KAR 5:031 and 8:020, which state that the allowable in stream concentration of chlorine is 10 ug/l, which is equal to 0.01 mg/l. The CONTRACTOR shall submit, in writing to the ENGINEER, the method he proposes for dechlorinating. Recommended chemicals, as given in AWWA C651, are sulfur dioxide, sodium bisulfate, sodium sulfite, and sodium thiosulfate.
5. For tie-ins to an existing system such as tapping valves or direct cut-in, disinfection shall, at the ENGINEER'S discretion, consist of thoroughly cleaning the new part(s) with a solution containing not less than 200 mg/l (ppm) chlorine.
6. After initial disinfection and flushing, the OWNER will collect water samples for bacteriological testing. A core zone, which includes up to the first 2 mile, shall be established. Two samples shall be taken from the core zone. Additionally, 1 sample taken from each mile of new distribution main shall be taken for analysis. A new or routine replacement main shall not be placed in service until negative laboratory results are obtained on the bacteriological analyses. Sample bottles shall be clearly identified as "special" construction tests. If any of the samples are found to be positive or contain confluent growth, the CONTRACTOR shall repeat the disinfection procedure until the required numbers of negative samples are obtained.
7. The new water main(s) shall not be accepted by the OWNER for operation until the above sterilization procedures have been completed. The cost of sterilization/dechlorination procedures shall be incorporated into the CONTRACTOR'S unit price and/or lump sum bid, as the case may be.

3.04 BASIS OF PAYMENT

A. Excavation and Backfilling

1. Trenching, Laying, and Backfilling Pipelines
 - a. Unit Price Contracts
 - (1) Payment for trenching and backfilling for pressure lines shall be included in the unit price bid for furnishing and installing the pipe, measured by the linear feet installed, including fittings and accessories length.

2. Solid Rock Excavation

a. Unclassified Excavation

- (1) Excavation shall be unclassified and the cost of all excavation of whatever nature and state, including solid rock, shall be included in the CONTRACTOR'S unit price bid for each item of construction requiring excavation or included in the lump sum bid for such type contracts.

3. Search and Extra Depth Trench Excavation

- a. "Search" trench excavation shall be the actual measured excavation within limits as acceptable to the ENGINEER.

- b. "Extra Depth" trench excavation shall be the calculated yardage below the lowest point of excavation which would normally have been required for construction.

- c. Trench width limitations for either condition shall be as listed in the following table:

For 6" Pipe 2'-6"	For 16" Pipe 2'-11"	For 36" Pipe 5'-6"
For 8" Pipe 2'-9"	For 18" Pipe 3'-2"	For 42" Pipe 6'-0"
For 10" Pipe 2'-9"	For 20" Pipe 3'-5"	For 48" Pipe 6'-6"
For 12" Pipe 2'-9"	For 24" Pipe 3'-8"	For 54" Pipe 7'-0"
For 14" Pipe 2'-9"	For 30" Pipe 4'-4"	

- d. The work of uncovering and backfilling required for locating existing sewers, water lines and other existing facilities for avoidance in location of proposed pipelines where such uncovering and backfilling is not within trench for improvements, shall be paid for at a price per cubic yard for such excavation actually removed and backfilled under item for "Search or Extra Depth Trench Excavation." Such payment does not include uncovering existing utility lines for their protection during or after trenching operations for the proposed pipeline.

- e. Where pipelines, force mains and sewers are laid in the same trench, the CONTRACTOR shall receive full trenching and backfill unit prices for each pipeline, force main and sewer so laid, the same as if laid in widely separated trenches.

4. Mechanical Tamping

- a. Mechanical tamping is defined as backfill placed and compacted by power driven mechanical equipment to a greater density than can

be achieved by natural settlement or hand tamping methods. Mechanical tamping will be required when ordered by the ENGINEER with payment by the cubic yard so compacted. Measurement, but not actual extent of the mechanical tamping, shall be limited by the numerical maximum allowable trench width (for each size pipe) as shown in the table listed under "Search and Extra Depth Trench." Payment for mechanical tamping shall not include the specified bedding, haunching, or initial backfill required above and below the top of pipe.

B. Tunneling, Boring or Jacking

1. Permanent Tunnels

- a. The payment for permanent tunnels shall be the length measured along its centerline from the entrance face on one side to the exit face on the other side of the tunnel. Payment per linear foot for each size tunnel shall include excavation, tunnel liner, pressure grouting, tunnel subgrade, closure plates and backfilling, complete.

2. Temporary Tunnels

- a. Payment for temporary tunnels shall be made per linear foot based on the measured distance along the centerline of tunnel from the inlet face on one side to the outlet face on the other side of the tunnel. Payment shall include all excavation, backfilling and all sheeting and shoring of tunnel, regardless of whether removed.

3. Boring or Jacking

- a. In unit price Contracts, usable holes either bored or jacked shall be paid for per linear foot of hole actually bored or jacked, according to the diameter of the hole required, measured along the centerline from the point of entrance on one side to the point of exit on the other side. When cover pipe is installed inside the bore, boring or jacking and cover pipe shall be paid per linear foot based on the length of the cover pipe installed, according to the diameter of the cover pipe required.

C. Trench and Pipe Stabilization

1. Extra Excavation

- a. Extra excavation required for trench or pipe stabilization shall be paid by the cubic yard so excavated under the item "Search and/or Extra Depth Trench Excavation" based on the limitations for that item.

2. Crushed Stone for Trench Stabilization
 - a. Crushed stone ordered by the ENGINEER for trench stabilization shall be as specified in Section 02235 of these Specifications and paid by the ton so placed.
3. Crushed Stone for Pipe Bedding
 - a. Additional crushed stone bedding ordered by the ENGINEER for pipe stabilization shall be as specified in Section 02235 of these Specifications and paid by the ton so placed.
4. Plain or Reinforced Concrete Arch
 - a. Plain or reinforced concrete arch called for on the Drawings and/or ordered by the ENGINEER shall be paid for by the linear foot of pipeline upon which it is placed. The Form of Proposal will indicate which method is to be used.
5. Plain or Reinforced Concrete Cradle
 - a. Plain or reinforced concrete cradle called for on the Drawings and/or ordered by the ENGINEER shall be paid for by the linear foot so placed.

D. Water Lines or Sewage Force Mains

1. Unit Price Contracts
 - a. Water Lines or Sewage Force Mains
 - (1) Payment for furnishing, trenching, bedding, laying, and backfilling water lines or force mains shall be included in the unit price bid per linear foot of pipe laid, including length of fittings and valves, unless same are included in lump sum portions or assemblies noted on the Drawings. However, payments will not be made for branch lengths of fittings within 2.5 feet of edge of main trench. The extra cost of trenching in difficult locations, such as stream, railroad, and highway crossings, if not covered in other contract unit prices, shall be included in unit price for furnishing, trenching, bedding, laying, and backfilling the pipe.
 - (2) All blowoff or vent branches will be measured as pipe from center of connecting tee to end of pipe.
 - (3) In the case of unit price contracts, unless otherwise stated in the Special Conditions, ductile iron fittings, laid outside lump sum assemblies, will be paid for by the pound of body castings, without joint accessories, at the weights listed in

ANSI/AWWA C110/A21.10 or ANSI/AWWA C153/A21.53 in the case of ductile iron compact fittings.

E. Excess Materials

1. The unit prices for trench excavation, tunneling and backfill shall include the cost of disposition of excess excavated materials.

F. Valves

1. The unit price bid for the installation of valves shall include valve boxes, the cost of the concrete collar required around the valve boxes and extension stems if required.

G. Testing and Purging

1. The unit price bid for installing pressure lines shall include cleaning, purging, and testing the line.

H. Blocking of Bends and End of Pipe

1. The payment for blocking of bends and ends of pipes shall be included in the price bid for furnishing and laying the pipe.

I. Disinfection and Dechlorination

1. The required disinfection of pipelines followed by disposal of the chlorinated water used in the disinfection process shall be included in the price bid for furnishing and laying the pipe.

J. Tracing Wire or Tape

1. The cost of tracing wire or tape installed with nonmetallic pipe shall be included in the price bid for furnishing and installing the pipe.

END OF SECTION

SECTION 02930
SODDING AND SEEDING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Provide all labor, materials, equipment and services required to perform seeding as shown on the Contract Drawings and as specified herein.
- B. All areas disturbed by construction operations shall receive a protective cover of vegetation. The work shall consist of preparing the area for treatment, furnishing and placing soil amendments, fertilizer, sod, seed, inoculants, mulch and plantings as specified in the designated areas.

1.02 RELATED WORK

- A. Special requirements for materials and equipment are given in Sections 00700 and 01600.
- B. Special sequence or schedule requirements (if any) are specified in Section 01010 - Summary of Work.

1.03 QUALIFICATIONS

- A. The work shall be done by a provider who is experienced, reputable, and qualified in the tasks required.

1.04 SUBMITTALS

- A. Shop Drawings and other items needed to establish compliance with the Drawings and these Specifications shall be submitted to the ENGINEER in accordance with Section C-700.
- B. Where fertilizer is furnished from bulk storage, the CONTRACTOR shall furnish a supplier's certification of analysis and weight. When required by the Contract, a representative sample of the fertilizer shall be furnished the OWNER for chemical analysis.

1.05 WARRANTY

- A. Refer to Division 0 and 1 for warranty requirements.

PART 2 PRODUCTS

2.01 SEED

- A. All seed shall conform to the current rules and regulations of the state where it is being used and from the latest crop available. It shall meet or exceed the standards for purity and germination listed herein.

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- B. Seed shall be labeled in accordance with the state laws and the U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act in effect on the date of invitations for bids. Bag tag figures will be evidence of purity and germination. No seed will be accepted with a date of test of more than 9 months prior to the date of delivery to the site.
- C. The seed for use on this project shall be of the type as listed below with the listed germination and purity qualifications.

<u>Species</u>	<u>% Purity</u>	<u>% Germination</u>
Tall fescue (KY-31) (<u>Festuca arundinacea</u>)	98.5	80
Ryegrass (<u>Lolium multiflorum</u>)	98.0	90
Oats (<u>Avena sativa</u>)	98.0	90
Rye, grain (<u>Secale cereale</u>)	97.0	85
Redtop (<u>Agrostis alba</u>)	90.0	80
Ky. Bluegrass (<u>Poa pratensis</u>)	81.0	70

2.02 FERTILIZER

- A. Unless otherwise specified the fertilizer shall be a commercial grade fertilizer or as specified herein. The fertilizer shall meet the standard for grade and quality specified by state law.

2.03 INOCULANTS

- A. The inoculant for treating legume seeds shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species and shall not be used later than the date indicated on the container or as otherwise specified. A mixing medium, as recommended by the manufacturer, shall be used to bond the inoculant to the seed. Two times the amount of the inoculant recommended by the manufacturer shall be used, except when seed is applied by use of hydraulic seeder, in which case 4 times the amount of inoculant recommended by the manufacturer shall be used. Seed shall be sown within 24 hours of treatment and shall not remain in the hydraulic seeder longer than 4 hours.

2.04 SOIL AMENDMENTS

- A. Lime shall consist of standard ground agricultural limestone, or equal. Standard ground agricultural limestone is defined as ground limestone meeting current requirements of the State Department of Agriculture. Agricultural lime or other needed soil amendments will be uniformly applied at the rate specified herein.

2.05 ASPHALT EMULSION

- A. Asphalt emulsion shall conform to the requirements of ASTM D 977-80, "Emulsified Asphalt." The emulsified asphalt may be rapid, medium, or slow cure materials.

2.06 STRAW MULCH MATERIALS

- A. Straw mulch materials shall consist of wheat, oat, or rye straw, hay, grass clippings cut from any native grasses or other plants acceptable to the ENGINEER. The mulch material shall be air dry, reasonably light in color, and shall not be musty, moldy, caked, or otherwise of low quality. The use of mulch that contains noxious weeds will not be permitted. The CONTRACTOR shall provide a method satisfactory to the ENGINEER for determining weight of mulch furnished.

2.07 OTHER MULCH MATERIALS

- A. Mulching materials, such as wood cellulose fiber mulch, emulsion type, synthetic fiber mulch, netting, mesh, and other mulching materials that may be required for specialized locations and conditions, when specified, must be accompanied by the manufacturer's recommendations for methods of application.

PART 3 EXECUTION

3.01 EXTENT

A. Lump Sum Contracts

1. Seeding

- a. Except for areas occupied by structures, roadways, walkways, and sodded areas specified above, the entire area disturbed by construction operations shall be seeded.

B. Unit Price Contracts

1. Seeding

- a. Where lawns, pastures, thin grass or cover crops are destroyed by trenching, laying, backfilling, or tunneling operations, surface shall be prepared by disking, fertilizing and seeding. Seeding, fertilizing, and mulching shall be included in the price for trenching and backfilling. The timing of this operation shall be controlled by the ENGINEER. Requirements of the Department of Highways for reseeding shall take precedence over these Specifications where they are involved.
- b. When the construction project is located on privately owned property on easements acquired by the OWNER and the individual landowner requires the cover grass to be the same as present at the beginning of construction, the CONTRACTOR shall supply the seed required by the landowner. Seeding and fertilizing in such instances, shall be at the rate as recommended by the seed producer with soil preparation and mulching as stated herein.

- c. When the construction project encroaches within the rights-of-way of the Department of Highways, the seed mixture, application rate and method of mulching shall be as required by the Department of Highways.

2. CONTRACTOR'S Options

- a. Where surface grasses and cover are similar in nature throughout the length of the project, the CONTRACTOR may provide seed of one type or mixture for the entire project provided there are no objections by individual landowners involved and with permission of the OWNER and ENGINEER. In such cases, the seed type and/or mixture shall be that specified for lawn areas. Pasture and/or cover crop mixtures shall not be used for lawn application for any reason.
- b. When construction facilities or construction operations are located on or encroach on privately owned properties, the CONTRACTOR may, at his election, negotiate with the individual landowners for restoration of the surface. This negotiation and settlement may be for materials or labor or both as agreeable to the individual property owner. In such cases, the CONTRACTOR shall obtain from the individual landowner a "Release of Claims" releasing the OWNER from any further liability for surface restoration, a copy of which shall be provided for the OWNER and ENGINEER. This option shall apply to surface restoration only. The CONTRACTOR shall be responsible for cleanup and regrading work and for any settlement of the trench or graded area within the one year guarantee period.

3.02 SOIL PREPARATION

- A. All areas to be seeded or sodded shall be thoroughly cleaned, removing all debris of whatever nature. After the area has been cleaned, the soil for seeding and sodding shall be prepared as follows:
 - 1. Loosen the soil to a depth of not less than 4 inches.
 - 2. Work the soil until it is in good condition, raking with hand rake to complete the soil preparation and make final finished grade.
 - 3. Broadcast 15 pounds of 8-8-8 or better fertilizer on each 1,000 square feet of area (for sodded areas only).
 - 4. Rake area to receive sod, to spread fertilizer and work into soil.
 - 5. On areas to be seeded, the raking in of fertilizer may be done concurrently with raking in of seed as hereinafter specified.

3.03 SEEDING

A. Temporary Cover (All Areas)

1. This item shall consist of seeding a temporary cover of grass, or grass and small grain, on areas disturbed on the construction site which will not be redisturbed within a 60 day period. The determination of the area to be temporarily seeded and the time of seeding shall be controlled by the ENGINEER.
2. The seed mixtures to be used for temporary cover will be governed by the time of year the seeding is accomplished. The mixtures and time of seeding shall be as follows:
 - a. Time of Seeding - 2/15 to 6/1
 - (1) Rye 1-1/2 bushels and ryegrass 25 pounds per acre; or tall fescue 30 pounds and ryegrass 20 pounds per acre.
 - b. Time of Seeding - 6/2 to 8/15
 - (1) Tall fescue 30 pounds and ryegrass 20 pounds per acre; or, spring oats 2 bushels and ryegrass 30 pounds per acre.
 - c. Time of Seeding - 8/16 to 2/14
 - (1) Rye 2 bushels and ryegrass 20 pounds per acre; or, tall fescue 30 pounds and ryegrass 20 pounds per acre.
 - d. Lime will not be required for temporary seeding.
 - e. Fertilize at the rate of 400 pounds per acre of 10-10-10 fertilizer, or equivalent, broadcast uniformly on the area to be seeded.
 - f. All seed shall be broadcast evenly over the area to be seeded and cultipacked or otherwise pressed into the soil. Seed and fertilizer may be mixed together and applied after the seed bed has been prepared.
 - g. Mulch for temporary seeding will not be required except on those areas, in the ENGINEER'S opinion, too steep to hold the seed without protective cover.

B. Seeding (Permanent Cover)

1. This item consists of seeding all areas disturbed during construction. All grading and/or filling of rills and gullies to a cross section acceptable to the ENGINEER shall be included in the seed bed preparation.

a. Pastures and Cover Crops

- (1) All areas to be seeded shall be seeded with 50 pounds of tall fescue (KY-31) per acre, subject to the provisions hereinbefore stated in this Specification group.
- (2) Prepare seed bed as specified in Article 3.02 of this Specification Section unless instructed otherwise by the ENGINEER. Apply 2 tons of lime per acre.
- (3) No mulch will be required except when seeding is done during the period October 16 through January 31, or May 2 through July 31, tall fescue straw shall be used at the rate of 2 tons per acre.

b. Lawns and Yards

- (1) This item consists of seeding all areas equivalent to residence lawns or yards disturbed during construction. All grading and filling shall be accomplished in a manner acceptable to the ENGINEER prior to the placement of seed and materials. Seed shall consist of a mixture of one part Red Top and 3 parts high grade Kentucky Bluegrass seed mixed together and broadcast at the rate of 2 lbs to each 1,000 square feet of surface, to be seeded. Apply 2 tons of lime per acre. Apply 1500 pounds of 10-20-20 fertilizer per acre. Apply mulch at the rate of 2 tons per acre. Mulch shall be applied to all lawn areas regardless of the time seeded.

3.04 MULCHING

- A. Mulch materials, meeting the requirements of Part 2 of this Specification Section, shall be applied at the rate of 2 tons per acre.
- B. The mulch shall be stabilized by running a "weighted" disk harrow with disks set straight, over the area on the contour, after the mulch has been applied, so as to imbed or press a part of the straw into the soil sufficiently to hold it in place. On earth embankments or areas too steep for use of mechanized equipment, the mulch shall be held in place by using small stakes and twine or other method acceptable to the ENGINEER. The blown-on bituminous-treated straw mulch method of placing the mulch, as specified in Section 212.06.03, Method 2 of the Standard Specifications for Road and Bridge Construction of the Kentucky Transportation Cabinet Department of Highways, will be an acceptable placing method.
- C. Mesh, netting or other special protective cover shall be at locations as shown on the Drawings and shall be installed according to the manufacturer's recommendations.

END OF SECTION

SECTION 03301
CAST-IN PLACE CONCRETE
(MINOR STRUCTURES)

PART 1 GENERAL

1.01 SUMMARY

- A. This specification delineates the requirements for cast-in place concrete for minor structures including concrete kickers for pipe blocking, sidewalks, collars, manholes, manhole bottoms, pipe cradles, piers and other areas where small quantities of concrete are required. It shall not be used for major structures such as floor slabs, structure or basin walls, roof slabs, or other structural components.

1.02 SCOPE OF WORK

- A. Provide all labor, material, equipment and services to complete all cast-in-place concrete work required by the Project as shown on the Drawings or specified herein.

1.03 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 185	Specification for Steel, Welded Wire, Fabric, Plain, for Concrete Reinforcement
ASTM A 497	Specification for Welded Deformed Steel Wire Fabric for Concrete Reinforcement
ASTM A 615/A615M	Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
ASTM A 616/A616M	Specification for Rail-Steel Deformed and Plain Bars for Concrete Reinforcement
ASTM A 617/A617M	Specification for Axle-Steel Deformed and Plain End Bars for Concrete Reinforcement
ASTM A 706/A706M	Specification for Low-Alloy Steel Deformed Bars for Concrete Reinforcement
ASTM C 33	Specification for Concrete Aggregates
ASTM C 150	Specification for Portland Cement

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ASTM C 260 Specification for Air-Entraining Admixtures for Concrete

ASTM C 494 Specification for Chemical Admixtures for Concrete

1.04 SUBMITTALS

- A. Copies of all materials required to establish compliance with these Specifications shall be submitted in accordance with the provisions of the General Conditions.

1.05 QUALITY ASSURANCE

- A. All work shall be performed to secure for the entire job homogeneous concrete having required strength, durability and weathering resistance, without planes of weakness and other structural defects and free of pronounced honeycombs, air pockets, voids, projections, offsets of plane and other defacements on exposed surfaces.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Do not deliver ready-mixed concrete to job site until ready for placement.
- B. All materials used for on-site mixed concrete shall be kept clean and free from all foreign matter during transportation and handling and kept separate until measured and placed in the mixer.
- C. Store concrete aggregates to prevent contamination or segregation. Store reinforcement of different sizes and shapes in separate piles or racks raised above the ground to avoid excessive rusting.
- D. Protect from contaminants such as grease, oil and dirt. Provide for accurate identification after bundles have been broken and tags removed.

1.07 PROJECT/SITE CONDITIONS

A. Cold Weather

- 1. Provide and maintain 50 degrees Fahrenheit minimum concrete temperature. Do not place concrete when ambient temperature is below 40 degrees Fahrenheit. Cover concrete and provide with a source of heat sufficient to maintain 50 degrees Fahrenheit minimum while curing.

B. Hot Weather

- 1. Concrete temperature from initial mixing through final cure shall not exceed 90 degrees Fahrenheit. Cool ingredients before mixing, or substitute chip ice for part of required mixing water or use other suitable means to control concrete temperature to prevent rapid drying of newly placed concrete. Shade the fresh concrete and start curing as soon as the surface is sufficiently hard to permit curing without damage.

PART 2 PRODUCTS

2.01 CONCRETE

A. Mix Design

1. The concrete mix shall conform to the requirements of the following table according to the class of concrete required. The number in the "Class" column refers to the 28-day compressive strength of the concrete in pounds per square inch (psi).

Class	Minimum Cement Content (Lbs./Cu. Yd.)	*Maximum Slump (Inches)
3000	470	3 to 4
3500	520	3 to 4
4000	550	3 to 4

* Maximum slump unless high range water reducing admixture is used.

B. Area of Application

1. Unless otherwise noted on the Drawings, concrete mixes shall be used as follows:

Class 3000 - kickers for pipe, fittings
Class 3500 - non-reinforced portions of manholes, pipe cradles
Class 4000 - reinforced portions of manholes, sidewalks, piers

2.02 MATERIALS

A. Cement

1. Portland cement for concrete and mortar shall conform to ASTM C 150, Type I or II.

B. Water

1. Water shall be potable.

C. Aggregates

1. Aggregates shall conform to ASTM C 33. Obtain aggregates from one source. Aggregates shall not contain any substance which may be deleteriously reactive with the alkalis in the cement.

D. Admixtures

1. Admixtures for air-entrained concrete shall conform to ASTM C 260, for water reducing (Type A, D or E) accelerating (Type C) and retarding (Type B or D) ASTM C 494. Calcium chloride shall not be used as an admixture.

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Admixtures shall not be used without prior written approval of the ENGINEER.

E. Reinforcement

1. Reinforcing Bars

- a. Reinforcing bars shall conform to ASTM A 615/A615M Grade 60, ASTM A 616/A616M Grade 60, ASTM A 617/A617M Grade 60 or ASTM A 706/A706M Grade 60 as applicable.

2. Welded Wire Fabric

- a. Welded wire fabric shall conform to ASTM A 497 or ASTM A 185.

PART 3 EXECUTION

3.01 FORMS

- A. Forms shall be used to confine concrete and shape it to the required dimensions. Set forms true to line and grade and make mortar tight. Chamfer above grade exposed joints, edges and external corners 3/4-inch, unless otherwise indicated. Earth cuts may be used as forms for footing vertical surfaces, if sides are sharp and true, and not exposed in finished structure.

3.02 PLACING REINFORCEMENT AND MISCELLANEOUS MATERIALS

- A. Provide bars, wire fabric and other reinforcing materials, including wire ties, supports and other devices necessary to install and secure the reinforcement.

3.03 CONTROL AND CONSTRUCTION JOINTS

- A. For sidewalks, provide control joints spaced at an interval equal to the width of the sidewalk, the minimum spacing of 5 feet. Cut joints 1 inch deep with a jointing tool after the surface has been finished. Provide 0.5-inch thick transverse expansion joints at changes in direction, where sidewalk abuts curb, steps, rigid pavement or other similar structures; space joints not more than 40 feet apart. Limit variation in cross section to 1/4-inch in 5 feet.

3.04 CURING AND PROTECTION

- A. Protect concrete from injurious action by sun, wind, rain, flowing water or mechanical injury. Do not allow concrete to dry out from time of placement until the expiration of the curing period. Forms may be removed 48 hours after concrete placement.

END OF SECTION

SECTION 03480

PRECAST CONCRETE SPECIALTIES

PART 1 GENERAL

1.01 SUMMARY

- A. All items supplied for use on this project shall be as specified herein.

1.02 RELATED WORK

- A. Concrete specifications are included in Section 03300.
- B. Castings are specified in Section 05540.
- C. Connecting piping is specified in Section 02610 and Section 02700.

1.03 REFERENCES

- A. Where referenced specifications (ASTM, ACI, PCI, etc.), are mentioned, these standards are deemed to be the minimum standard of quality of materials or methods to apply to this project.

1.04 SUBMITTALS

- A. Shop drawings shall be submitted in accordance with Section 00700.

1.05 QUALITY ASSURANCE

- A. The precast fabricator shall be qualified in accordance with PCI MNL-116 - Manual for Quality Control for plants and production of precast concrete products.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Handle precast members in position consistent with their shape and design. Lift and support members only at such designated points.
- B. Provide temporary lateral support during storage as necessary to prevent bowing and warping. Temporary lateral devices shall be clean, non-staining and shall not inhibit uniform curing of exposed surfaces.
- C. Protect edges of members from chipping or spalling.
- D. Mark units with date of production and final position in structure.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Concrete materials including cement, water, sand and coarse aggregate shall conform to ACI 301-84 (Revised 1988).

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- B. Reinforcing steel and prestressing wire and strand shall conform to ACI 301-84 (Revised 1988).
- C. Initial Drawings shall be sent through the general CONTRACTOR to the ENGINEER in 3 copies for checking and return to the general CONTRACTOR in 2 copies.
- D. Final Drawings shall be sent to the ENGINEER through the general CONTRACTOR in 5 copies for conformance and return in 3 copies.

PART 3 EXECUTION

Not used.

END OF SECTION

03480-2

SECTION 15102
VALVES (WATER RELATED)

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment, and incidentals required and install complete and ready for operation all valves and appurtenances as shown on the Contract Drawings and specified herein.
- B. The equipment shall include but not be limited to, the following:
 - 1. Gate valves
 - 2. Check valves
 - 3. Tapping valves, sleeves and crosses
 - 4. Butterfly valves
 - 5. Dry barrel fire hydrants

1.02 RELATED WORK

- A. Excavation, backfill and grading is included in Division 2.
- B. Piping is included in the respective sections of Division 2.

1.03 DESCRIPTIONS OF SYSTEMS

- A. All of the equipment and materials specified herein is intended to be standard for use in controlling the flow of water.
- B. See the valve schedule for valve sizes, quantities, connections, class, type of actuator and location.

1.04 QUALIFICATIONS

- A. All of the types of valves and appurtenances shall be products of well established firms who are fully experienced, reputable and qualified in the manufacture of the particular equipment to be furnished. The equipment shall be designed, constructed and installed in accordance with the best practices and methods and shall comply with these specifications as applicable.
- B. Acceptable Manufacturers
 - 1. Gate Valves - Kennedy, Clow, Mueller, or equal.
 - 2. Check Valves - Clow, GA Industries, or equal.
 - 3. Tapping Sleeves - Clow, American-Darling, Mueller, M&H, or equal.

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4. Butterfly Valves – Milliken, Pratt, GA, Victaulic, or equal.

1.05 SUBMITTALS

- A. Complete shop drawings of all valves and appurtenances shall be submitted to the ENGINEER in accordance with the requirements of Sections 00820 and 00700.
- B. The ENGINEER shall be furnished 2 certified copies of reports covering the required leakages, hydrostatic and proof-of-design tests on the valves.
- C. Gate Valves
 1. The manufacturer shall furnish the ENGINEER 2 copies of an affidavit stating that the valve and all materials used in its construction conform to the applicable requirements of ANSI/AWWA C509-94, and that all tests specified therein have been performed and that all test requirements have been met.
 1. The ENGINEER shall be furnished 2 copies of affidavit that the "Valve Protection Testing" has been done and that all test requirements have been met.
 2. The ENGINEER shall be furnished with 2 copies of affidavit that inspection, testing and rejection are in accordance with AWWA C509-94 Section 6.1 through Section 6.2.

1.06 OPERATING INSTRUCTIONS

- A. Manufacturer's operating and maintenance instructions shall be furnished to the ENGINEER as set forth in Section 01600.

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. General
 1. All valves and appurtenances shall be of the size shown on the Drawings and as far as possible all equipment of the same type shall be from one manufacturer.
 2. All valves and appurtenances shall have the name of the maker, flow-directional arrows, and the working pressure for which they are designed cast in raised letters on some appropriate part of the body.
 3. All buried valves shall open left (counter clockwise). Insofar as possible, all valves shall open counter clockwise.
 4. All valves must be provided with suitable operating devices and adapted for operation in the position in which they are shown on the Drawings.

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5. Valves shall have types of operators as shown on the Drawings and/or listed in the valve schedule.
6. All bolts and studs shall be in accordance with ASTM A-307 Grade B and nuts shall be in accordance with ASTM A-563. Bolts, studs and nuts shall be electrogalvanized according to ASTM B-633.

2.02 GATE VALVES

A. Resilient-Seated Gate Valve (AWWA Type)

1. General

- a. Resilient-seated gate valves shall conform in all respects to ANSI/AWWA C509-94 with non-rising or rising stems, in sizes 3, 4, 6, 8, 10, and 12-inch NPS except as otherwise noted below. They shall be designed for a working water pressure of 200 psi.
- b. Valves shall have a clear unobstructed water way, without pockets or ridges in the seating area of the valve body. When fully open the water way shall be at least as large as the pipe diameter to which it is connected.
- c. All future references to section and paragraph numbers shall be those of ANSI/AWWA C509-94.

2. Materials

a. Physical and Chemical Properties

- (1) Physical and chemical characteristics of the valve components shall be in accordance with Section 2.2, except that carbon steel castings for valves are not acceptable. Paint shall be as hereinafter specified under "Valve Protection."

3. Detailed Design

a. Valve Ends

(1) General

- (a) Valve ends shall be flanged, mechanical joint, asbestos cement, PVC or rubber ring slip-on type as shown on the Drawings and/or as listed in the resilient seat valve schedule.
- (b) In resilient seated tapping valves, end connections may be a combination of flanged and mechanical joint, flanged and asbestos cement or flange and flange.

- (2) PVC Joints
 - (a) PVC joints shall be rubber ring slip-on type.
- b. Stem Seal
 - (1) Stem seals shall be O-rings in accordance with Section 4.8, paragraph 4.8.2 and subparagraph 4.8.2.1, and materials shall be in accordance with paragraph 4.8.3.
- c. Wrench Nuts and Handwheels
 - (1) Wrench nuts and handwheels shall be in accordance with Section 4.11 and subparagraphs 4.11.1 through 4.11.5, except that all valves whether NRS or O S & Y shall open by turning counterclockwise.
- d. Gaskets
 - (1) Gaskets where used shall be in accordance with Section 4.15. O-rings of Buna-N or equal material.
- e. Valve Seats
 - (1) Valve seats shall be in accordance with Section 4.16, except that seats applied to the valve body are not acceptable.
- 4. Valve Boxes
 - a. Valve boxes shall be provided for each buried valve. They shall be cast iron, of heavy pattern, adjustable type and provided with cast iron cover. The upper section of each box shall have a bottom flange of sufficient bearing area to prevent settling. The bottom of the lower section shall enclose the stuffing box and operating nut of the valve. Boxes shall have barrels of not less than 5-inch in diameter and be of length adapted to pipe cover. Boxes shall be adjustable, with a lap of at least 6 inches when in the most extended position. Covers shall have the word "OPEN" and an arrow indicating the direction of opening cast into covers in raised letters. Provide valve stem extensions for all buried valves.
- 5. Fabrication
 - a. Valve Protection (Painting and Coating)
 - (1) Exterior
 - (a) Exterior painting of the valve may be in accordance with section 2.2.7, or it may be the same as that specified for interior painting of the valves.

(2) Interior

- (a) The interior of the valve shall be prepared for and painted in accordance with AWWA C550-90. The coating may be a fusion bonded epoxy, in 8 to 10 mil thickness or it may be a two-part thermosetting epoxy having the same mil thickness. After application the interior coating shall be visually examined and holiday tested in accordance with AWWA C550-90.

6. Valve Stands and Extension Stems

- a. Extension stems for non-rising stem valves shall have stem guides for each 10-foot length of extension stem.
- b. All extension stems shall be connected by bolted couplings for connection to a removal from the valves and stands. Nuts and bolts in connections shall be stainless steel. All extension stem connecting pins shall be stainless steel.

2.03 DRY-BARREL FLUSH HYDRANTS

A. General

1. Finish paint color of the hydrant barrel above ground line shall be red.
2. All hydrants shall have an automatic drain feature providing positive barrel drainage after hydrant use.
3. The lowest outlet level of the hydrant shall be located sufficiently above the indicated ground level to permit a 360° swing of a 15-inch hydrant wrench. One standard hydrant wrench is to be provided. All hydrants shall open by turning counterclockwise.
4. Where the OWNER has standardized on one particular make and model hydrant and desires that the hydrants furnished under this project be such standard, that make and model hydrant, shall be Eclipse No. 2, manufactured by the Kupferle Foundry, or equal.

B. General Design and Detailed Design

1. Detailed Design

a. Bury-length and Trench Depth

- (1) Unless otherwise noted, depth of hydrant will be 3'-6". In the event that a hydrant is installed at a location requiring greater than the "standard bury" depth, the CONTRACTOR will be required to provide the riser sections required at no additional cost to the OWNER.

PART 3 EXECUTION

3.01 INSTALLATION (IN STRUCTURES, VAULTS AND BASINS)

A. Exterior

1. Valves in ground shall be installed with operating stems vertical, unless otherwise shown on the Drawings or called for in these Specifications. Tops of operating nuts shall be not more than 30 inches below ground surface. Where valve operating nuts are more than 30 inches below tops of valve boxes, stems shall be provided to bring the operating nut to within 12 to 24 inches of box tops.
2. Valve boxes shall be accurately centered over valve operating nuts and the backfill shall be mechanically tamped about them, to prevent subsequent movement. Tops of boxes shall be flush with ground surface, paving, walk, or road surface.
3. The cost of the concrete collar, required about valve boxes, shall be included in the unit price for the valve and/or box.

- B. For gate valves, installation shall be in accordance with Appendix A, Sections A.5.1 through A.5.7 of ANSI/AWWA C509-94.

3.02 SHOP PAINTING

- A. Interior surfaces of all valves, the exterior surfaces of buried valves and miscellaneous piping appurtenances shall be given a shop finish of an asphalt varnish conforming to Federal Specification TT-V51e for Varnish Asphalt.
- B. The exterior surface of various parts of valves, operators, floorstands and miscellaneous piping shall be thoroughly cleaned of all scale, dirt, grease, or other foreign matter and thereafter 1 shop coat of an approved rust-inhibitive primer such as specified in Section 09900 shall be applied in accordance with the instructions of the paint manufacturer.

3.03 INSPECTION AND TESTING

- A. The various pipelines in which the valves and appurtenances are to be installed are specified to be field tested. During these tests any defective valve or appurtenance shall be adjusted, removed and replaced, or otherwise made acceptable to the ENGINEER.
- B. Various regulating valves, strainer, or other appurtenances shall be tested to demonstrate their conformance with the specified operational capabilities any deficiencies shall be corrected or the device replaced or otherwise made acceptable to the ENGINEER.
- C. Testing shall be done in accordance with Section 02610 "Testing" with no visible leaks allowed on valves.

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3.04 TOOLS AND SPARE PARTS

- A. All special tools required for normal operation and maintenance shall be furnished by the valve manufacturer.

3.05 METHOD OF PAYMENT

- A. Payment for the complete system shall be included in the unit price bid for the project and shall include the furnishing of materials, equipment and parts and installation of all components to provide a completely functional system.

END OF SECTION

SECTION 15107

WATER METERS, SERVICE VALVES, STOPS AND MISCELLANEOUS APPURTENANCES FOR WATER LINE PROJECTS

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Furnish all labor, materials, and accessories to install equipment required by the Project, shown on the Drawings or specified herein, including the following:
 - 1. Water service meters and accessories
 - 2. Pressure regulating and relief valves for water services
 - 3. Blow-off hydrants
 - 4. Miscellaneous cocks and stops for water service

1.02 RELATED WORK

- A. Excavation, backfill, and grading are included in Division 2.
- B. Piping is included in the respective sections of Divisions 2 and 15.
- C. Large plumbing valves and appurtenances are included in this Division, Section 15102.
- D. Plumbing piping and fittings are included in Division 2.

1.03 QUALITY ASSURANCE

- A. All equipment and appurtenances shall be products of well established firms who are fully experienced, reputable, and qualified in the manufacture of the particular equipment to be furnished. All materials of construction shall be of an acceptable type and shall be designated for the pressure and temperatures at which they are to be operated, for the materials they are to handle and for the use for which they are intended. The materials shall meet established technical standards of quality and strength necessary to assure safe installations and conform to applicable standards. The equipment shall be designed, constructed, and installed in accordance with the best practices and methods and shall comply with these Specifications as applicable.

1.04 SUBMITTALS

- A. Copies of all materials required to establish compliance with these Specifications shall be submitted in accordance with the provisions of Division 1, Section 00700 (00710).

PART 2 PRODUCTS

2.01 GENERAL

- A. All meters, valves, stops, and appurtenances shall be of the size shown on the Drawings and as far as possible all equipment of the same type shall be from one manufacturer.

2.02 MISCELLANEOUS COCKS

A. Air Release Cocks

- 1. Air release cocks shall be for 125 pound pressure, 1/2-inch, bronze plug and body, with handle operator. Air cocks shall be Crane No. 256 Tee Head, Lunkenheimer No. 1571, or equal.

2.03 MISCELLANEOUS STOPS

A. Corporation Stops and Accessories

- 1. Corporation stops to be used with threaded pipe where connected into cast iron pipe, shall be brass ground joint type with AWWA CC or CS taper thread inlets and iron pipe thread outlets for threaded iron pipe. Stops shall be Ford Type F-1600, or equal.
- 2. Corporation stops to be used with flared copper tubing where connected into ductile iron pipe, shall be brass ground joint type with AWWA CC or CS taper thread inlets and flared copper outlets and shall be Ford Type F-600, or equal.
- 3. Corporation stops to be used with plastic tubing where connected into ductile iron pipe shall be brass ground joint type with AWWA CC or CS taper thread inlets and compression connection outlets shall be Ford F-1000 or equal.
- 4. Corporation stops installed in plastic (PVC or Pe) mains shall be attached and installed using a tapping saddle. For ASTM specification PVC pipe, the tapping saddle shall be a bronze, 2 section saddle for 2-inch through 8-inch size mains or a bronze, 3 section saddle for 10-inch and 12-inch mains, double strap, Ford "Saddlestop," S-70, or equal. For AWWA specification PVC pipe (C-900) use Ford S-90, or equal.
- 5. Corporation stops shall be factory tested to 250 psi to be compatible with the pipes in which they are installed.

B. Curb Stops and Accessories

- 1. Curb stops to be used with threaded pipe shall be brass inverted key round way with female threaded iron pipe connections for threaded iron pipe. Curb stops shall be Ford or equal.

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2. Curb stops to be used with copper pipe, with flared type connections, shall be Mueller H-15200, Ford, or equal.
3. Curb stops to be used with plastic pipe shall be brass inverted key round way with compression type connections. Curb stops shall be Mueller H-15207, Ford, or equal.
4. Furnish and install with each curb stop, a cast iron curb valve box, cast iron extension type with arch pattern base, with lid marked "WATER." Also furnish 2 tee wrenches, 4 feet in length, for operation of curb stops.

2.04 PRESSURE REGULATING AND PRESSURE RELIEF VALVES

A. Water Pressure Reducing Valves

1. Pressure reducing valves for water service 3 inches and smaller shall be of the bronze body, renewable stainless steel seat type with threaded end connections. The device shall be rated for initial pressure up to 300 psi with an adjustable pressure range of 25 to 75 psi. The pressure reducing valves shall be Watts Regulator Series 22323 or equal.

2.05 SPECIALTIES AND ACCESSORIES

A. Water Meters

1. General
 - a. Where OWNER has standardized on one particular make and model meter, and desires that they be furnished on this project, then such standard, make and model, namely a Badger Model 25, 5/8-inch x 3/4-inch with Orion Radio Read, MS20R-C1-TG-X-T, with leak detector will govern.
2. Meter Settings (Residential)
 - a. Meter setters shall be copper, riser type with stabilizing rod, vertical inlet and outlet with angle stop on the inlet. The outlet shall be provided with end connection designed for applicable service pipe.
3. Meter Box (Residential)
 - a. The meter and valve box shall be a precast concrete or a high density polyethylene box 24 inches deep. The box shall be able to withstand 1,200 pounds compression. The cover shall be equipped with a reader lid.

PART 3 EXECUTION

3.01 INSTALLATION

- A. All water meters, miscellaneous water service valves, stops, and appurtenances shall be installed in locations shown, true to alignment and rigidly supported. Any damage to the above items shall be repaired to the satisfaction of the ENGINEER before they are installed.
- B. All meters in boxes or vaults shall be located so that they may be easily read and serviced.
- C. After installation, all valves and appurtenances shall be tested at least 1 hour at the working pressure corresponding to the class of pipe, unless a different test pressure is specified. If any joint proves to be defective, it shall be repaired to the satisfaction of the ENGINEER.
- D. All materials shall be carefully inspected for defects in workmanship and materials; all debris and foreign material cleaned out of openings, etc.; all operating mechanisms operated to check their proper functioning, and all nuts and bolts checked for tightness. Equipment which does not operate easily, or is otherwise defective, shall be repaired or replaced at no additional cost to the OWNER.
- E. Blow-off hydrants shall be set at the locations as shown on the Drawings and bedded on a firm foundation.
- F. If directed, the hydrant shall be tied to the pipe with suitable rods or clamps, galvanized, painted, or otherwise rustproof treated. Concrete used for backing shall be no leaner than 1 part cement, 2-1/2 parts sand, and 5-1/2 parts stone.

3.02 INSPECTION AND TESTING

- A. The various pipelines in which the specified equipment is to be installed is specified to be field tested. During these tests any defective equipment shall be adjusted, removed and replaced, or otherwise made acceptable to the ENGINEER.
- B. Various meters regulating valves, strainers, or other appurtenances shall be tested to demonstrate their conformance with the specified operational capabilities and any deficiencies shall be corrected or the device replaced or otherwise made acceptable to the ENGINEER.

END OF SECTION

Exhibit 8
Filed Separately

Exhibit 9
Division of Water
Approval



Andy Beshear
GOVERNOR

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

300 Sower Boulevard
Frankfort, Kentucky 40601
Phone: (502) 564-2150
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Rebecca W. Goodman
SECRETARY

Anthony R. Hatton
COMMISSIONER

May 24, 2024

Mr. John Herring
Barkley Lake Water District
1420 Canton Rd
Cadiz, KY 42211

RE: Cont. 586-24-01 - Lakeside Area Water
Line Replacement
F23-002
Trigg County, KY
Barkley Lake Water District
AI #: 4031, APE20240002/FGL20230004

Dear Mr. Herring:

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 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. The plans consist of 2,555 linear feet of 3-inch PVC water line, 89,471 linear feet of 4-inch PVC water line, and 12,144 linear feet of 6-inch PVC water line. 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.

Cont. 586-24-01 - Lakeside Area Water Line Replacement
F23-002
Barkley Lake Water District
AI #: 4031, APE20240002/FGL20230004
May 24, 2024
Page 2 of 3

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 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

Cont. 586-24-01 - Lakeside Area Water Line Replacement
F23-002
Barkley Lake Water District
AI #: 4031, APE20240002/FGL20230004
May 24, 2024
Page 3 of 3

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: Bell Engineering, Inc.
Kentucky Infrastructure Authority
Cabinet for Economic Development
Trigg County Health Department
Division of Plumbing

F23-002
Barkley Lake Water District

SRF ELIGIBLE ITEMS:

Contract No. 586-24-01: Lakeside Area Water Line Replacement – No Ineligible Items Identified.

SRF INELIGIBLE ITEMS:

Contract No. 586-24-01: Lakeside Area Water Line Replacement – 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**

As Bid

Revised

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	

Exhibit 10
Order Granting
Easement

*Return to
Bewo*

FISCAL COURT OF
TRIGG COUNTY

Upon motion duly made:

WHEREAS the Chairman of the Barkley Lake Water District has requested a permanent easement across the county roads of this county for the purpose of expanding and maintaining the district. The Fiscal Court of Trigg County having considered the matter and deems that an order granting the easement is necessary and proper, provided however that the consideration for this order being granted is that the said district repair and return to normal any damage that might be done to the county public right-of-way;

IT IS THEREFORE ORDERED AND ADJUDGED by this court that a permanent easement be and is hereby granted to the Barkley Lake Water District for the purpose of using any and all county roads as may be needed for the purpose of constructing and maintaining water lines and service lines across the roads of this county in connection with the operation of Barkley Lake Water District System provided that said district repair any damage done by it in connection with this easement.

James E. Mathis

Judge, Trigg County Court

I certify that this is a true copy of a resolution appearing in the Fiscal Court Order Book T , Page 42 , Office of the Trigg County Court Clerk's Office.

Virginia Alexander

Virginia Alexander, Trigg County Court Clerk

Exhibit 11
Proof of Publication

AFFP
ADVERTISEMENT FOR BIDS

Affidavit of Publication

STATE OF KY }
COUNTY OF TRIGG } SS

Keishia Hicks, being duly sworn, says:

That she is Accounting Clerk of the The Cadiz Record, a newspaper of general circulation, printed and published in Cadiz, Trigg County, KY; that the publication, a copy of which is attached hereto, was published in the said newspaper on the following dates:

June 13, 2024
June 13, 2024

Publisher's Fee: \$ 405.30

That said newspaper was regularly issued and circulated on those dates.

SIGNED:

Keishia Hicks

Subscribed to and sworn to me this 13th day of June 2024.

Melanie S. Miller

70054071 70980858



Barkley Lake Water District
PO Box 308
Cadiz, KY 42211

ADVERTISEMENT FOR BIDS CONTRACT 586-24-01
LAKESIDE AREA WATER LINE REPLACEMENT BARKLEY LAKE WATER DISTRICT TRIGG COUNTY, KENTUCKY

Sealed proposals for the following work will be received by the Barkley Lake Water District, Trigg County, Kentucky at the Barkley Lake Water District, 1420 Canton Road, Cadiz, Kentucky 42211, until 1:00 p.m., local time, July 2, 2024, for furnishing labor and materials and performing all work as set forth by the Advertisement, General Conditions, Specifications and/or Drawings prepared by Bell Engineering. Immediately following the scheduled closing time for the reception of bids, all proposals which have been submitted in accordance with the above conditions will be publicly opened and read aloud. A non-mandatory prebid conference will be held at 10:00 a.m. local time, on June 24, 2024, at the office of the Barkley Lake Water District, 1420 Canton Road, Cadiz, Kentucky 42211.

The work to be bid is described as follows:

CONTRACT 586-24-01

Installation of approximately 12,150 linear feet of new 6-inch water lines, 85,300 linear feet of 4-inch water lines, 1,400 linear feet of 3-inch water lines, and appurtenances.

Drawings, Specifications and Contract Documents may be examined at the following places:

Barkley Lake Water District 1420 Canton Road
Cadiz, Kentucky 42211

Bell Engineering
107 Forbes Drive Hopkinsville, Kentucky 42240

Associated Builders and Contractors of Kentuckiana, Inc.
1333 Magnolia Street
Bowling Green, Kentucky 42104

Kentucky Cabinet for Economic Development
Procurement Assistance Program 300 West Broadway Street
Old Capitol Annex Frankfort, Kentucky 40601 (Advertisement for Bid Only)

or may be obtained from Lynn Imaging, 328 E. Vine Street, Lexington, Kentucky 40507, phone 859/255-1021, upon receipt of non-refundable deposit as follows:

CONTRACT 586-24-01--\$200.00

Sealed proposals for this Contract shall be clearly marked on the outside of the envelope as follows:

"Sealed Proposal for Contract 586-24-01, Lakeside Area Water Line Replacement. Not to be opened until 1:00 p.m., local time, July 2, 2024."

If forwarded by mail, the sealed envelope containing the proposal must be enclosed in another envelope and mailed to the Barkley Lake Water District, 1420 Canton Drive, Cadiz, Kentucky 42211, allowing sufficient time for such mailing to reach this address prior to the scheduled closing time for receipt of proposals.

Bids security shall be furnished in accordance to the Instructions to Bidders. The attention of all contractors is called to the fact that any contract awarded under this Advertisement for Bids is expected to be funded in part by a loan from the Kentucky Infrastructure Authority (KIA) SRF Loan Program and a Cleaner Water Grant.

The OWNER's share will be provided from current funds on hand and/or from revenue bonds.

Work to be performed by contractors involved in this project is subject to the minimum wage rates established by the U.S. Department of Labor under the provisions of the Davis-Bacon Act and the Kentucky Department of Labor, as set forth in Chapter 337 of the Kentucky Revised Statutes (per amendments adopted by the 1970 General Assembly). Contractors will be required to pay whichever minimum wage rate is higher for the individual crafts.

Bidders must comply with the President's Executive Order Nos. 11246 and 11375, which prohibit discrimination in employment regarding race, creed, color, sex or national origin. Where the President's Executive Order No. 11246 is shown, Executive Order No. 11375 also applies.

Bidders must make positive efforts to secure small or minority owned business

enterprise participation in this Project.

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

Bidders must certify that they do not and will not maintain or provide for their employees any facilities that are segregated or based on race, color, creed, or national origin.

Bidders must show a certification of prior work under Executive Order 11246 (Equal Employment Opportunity) as amended.

All contractors and subcontractors must comply with 41 CFR 60-4, in regard to affirmative action. This is to insure equal opportunity to females and minorities, and apply the time tables and goals set forth in 41 CFR 60-4.

The Barkley Lake Water District may consider informal any bid not prepared and submitted in accordance with the provisions of this advertisement and/or the Specifications and may waive any informalities or reject any and all bids. The award will be made to the lowest responsive, responsible bidder.

BARKLEY LAKE WATER DISTRICT Scott Bridges, Chairman

-EQUAL OPPORTUNITY EMPLOYER-

AFFP
ADVERTISEMENT FOR BIDS

Affidavit of Publication

STATE OF KY }
COUNTY OF CHRISTIAN } SS

Keishia Hicks, being duly sworn, says:

That she is Accounting Clerk of the Kentucky New Era, a newspaper of general circulation, printed and published in Hopkinsville, Christian County, KY; that the publication, a copy of which is attached hereto, was published in the said newspaper on the following dates:

June 13, 2024
June 13, 2024

Publisher's Fee: \$ 405.30

That said newspaper was regularly issued and circulated on those dates.

SIGNED:

Keishia Hicks

Subscribed to and sworn to me this 13th day of June 2024.

[Signature]



70054071 70980858

Barkley Lake Water District
PO Box 308
Cadiz, KY 42211

ADVERTISEMENT FOR BIDS CONTRACT 586-24-01
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The work to be bid is described as follows:

CONTRACT 586-24-01

Installation of approximately 12,150 linear feet of new 6-inch water lines, 85,300 linear feet of 4-inch water lines, 1,400 linear feet of 3-inch water lines, and appurtenances.

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1333 Magnolia Street
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Kentucky Cabinet for Economic Development
Procurement Assistance Program 300 West Broadway Street
Old Capitol Annex Frankfort, Kentucky 40601 (Advertisement for Bid Only)

or may be obtained from Lynn Imaging, 328 E. Vine Street, Lexington, Kentucky 40507, phone 859/255-1021, upon receipt of non-refundable deposit as follows:
CONTRACT 586-24-01--\$200.00

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Work to be performed by contractors involved in this project is subject to the minimum wage rates established by the U.S. Department of Labor under the provisions of the Davis-Bacon Act and the Kentucky Department of Labor, as set forth in Chapter 337 of the Kentucky Revised Statutes (per amendments adopted by the 1970 General Assembly). Contractors will be required to pay whichever minimum wage rate is higher for the individual crafts.

Bidders must comply with the President's Executive Order Nos. 11246 and 11375, which prohibit discrimination in employment regarding race, creed, color, sex or national origin. Where the President's Executive Order No. 11246 is shown, Executive Order No. 11375 also applies.

Bidders must make positive efforts to secure small or minority owned business

enterprise participation in this Project.

Bidders must comply with Title VI of the Civil Rights Act of 1964, the ⁴Anti-Kickback Act, the Contract Work Hours Standard Act, and the Davis-Bacon Act.

Bidders must certify that they do not and will not maintain or provide for their employees any facilities that are segregated or based on race, color, creed, or national origin.

Bidders must show a certification of prior work under Executive Order 11246 (Equal Employment Opportunity) as amended.

All contractors and subcontractors must comply with 41 CFR 60-4, in regard to affirmative action. This is to insure equal opportunity to females and minorities, and apply the time tables and goals set forth in 41 CFR 60-4.

The Barkley Lake Water District may consider informal any bid not prepared and submitted in accordance with the provisions of this advertisement and/or the Specifications and may waive any informalities or reject any and all bids. The award will be made to the lowest responsive, responsible bidder.

BARKLEY LAKE WATER DISTRICT Scott Bridges, Chairman

-EQUAL OPPORTUNITY EMPLOYER-

BASEBALL

FROM PAGE A6

was two for North Carolina, NC State and Tennessee and one for Virginia.

Kentucky had the most D-I transfers on its roster with 12; NC State had the fewest with five.

Baseball receives only 4.8% of overall NIL spending, according to Opendorse, and is far behind the top three sports — football, men's basketball and women's basketball. The top 25 NIL earners in baseball are making an average of \$45,000 per year.

But with most players receiving a partial scholarship because of the current NCAA limit of 11.7 per team, any income helps offset cost of attendance. Schools offering the most NIL money through their donors naturally get the best players.

Since July 1, 2021,

the average estimated annual NIL spending per SEC baseball team was \$820,000 to \$920,000, based on more than 150,000 NIL transactions disclosed through or processed by Opendorse, a company that works with dozens of schools and more than 40 collectives on NIL activities. A number of SEC teams are said to be spending well into the millions.

The average NIL spending in the ACC is half that of the SEC but still ranks second among

all conferences.

If scholarship limits are removed, which is the expectation, deep-pocketed programs could choose to fully fund their programs.

This year, each program can divvy up 11.7 scholarships among 32 players. If all 32 get full rides in the future, the chasm between the

haves and have-nots in the sport surely will deepen. And there could be additional money for baseball players in the major conferences as part of the revenue-sharing plan proposed in the NCAA's antitrust case settlement.

LEGAL

Trigg County Public Schools is currently taking bids on diesel and gasoline for the 2024-2025 school year. Bid packets can be picked up at the board of education, 202 Main Street, Cadiz, KY. All bids are due and will be publicly opened at 10:00 AM, July 9, 2024.

LEGAL

Notice
Fiduciary appointments have been made by the Trigg District Court as follows: Case No. 23-P-00094 appointed Shannon W. King as Administrator for the Estate of Robert C King., 287 Keswick Grove Lane, Franklin, Tn 37067, deceased on September 5, 2022. All persons having claims against said estates are notified to present them to the Fiduciary verified according to law not later than six (6) months from date of qualification of personal representative. This 4th day of June 2024 /s/Denise Grissom, Deputy Clerk
Trigg District Court
41 Main Street
Cadiz, KY 42211
270-522-6270

LEGAL

Public Hearing Notice
Cadiz Trigg County Planning Commission
Zoning Map Adoption
2024-ZM-1

In accordance with KRS Chapter 424 and KRS Chapter 100 notice is hereby given that the Cadiz Trigg County Planning Commission will hold a public hearing on June 25, 2024 at 6:00 PM in the Renaissance Conference Center, 46 Jefferson Street, Cadiz, KY 42211. The purpose of the hearing is to receive information regarding the adoption of a current zoning map and city limits boundaries for the City of Cadiz. Current and proposed maps are available for review at Cadiz City Hall, 63 Main Street, Cadiz, KY 42211 between 8:00 AM and 4:00 PM as well as the Planning Commission Office by appointment beginning on Jun 10, 2024.

Cadiz Trigg County Planning Commission
PO Box 2053
Cadiz, KY 42211

LEGAL

The Following vehicles will be sold to the highest bidder on 1JULY2024 at 1000 at Riddles Towing 1834 Carneal Ln, Oak Grove, KY 42262 270-350-6368

1.2012 Nissan Altima
1N4AL2AP3CC215920
George Acevedo

2.2006 Toyota Camry Solara
4T1FA38P66U079990
Gavit, Sheila

3.2012 Chevrolet Impala
2G1WF5E30C1286393
Taisha Mahon
Allens Auto Mart

4.1993 Chevrolet S-10
1GCCS14Z4P8172890
Parsons, Malcolm L

5.1998 Jeep Grand Cherokee
1J4GZ58S8WC174908
Crawford, Dana D

6.2004 Toyota Camry
4T1BE32K34U297284
The Car Link Group Inc
John Clayton Edward Beckman

7.2003 Ford Explorer
1FMDU75W23UB92218
Nelson, Jonathan R

8.2002 Dodge Ram 1500
3D7HA18N42G115534
Isly Mariela Isawla Mendoza

9.2017 Ram 1500
1C6RR6JT4HS520251
Primos Auto Sales OF Memphis Llc
Vizcaya, Julio C

10.1999 Chevrolet Silverado 1500
2GCEK19T9X1182511
Sandra Elaine Red Bear

11.2015 Chevrolet Malibu
1G11C5SL1FF173055
Dina Auto Sales

12.2008 Lexus ES 350
JTHBJ46G782253560
Daquan Gibbs
Wyatt Johnson Auto Credit

LEGAL

CITY OF CADIZ, KENTUCKY
ORDINANCE NO. 24-03
PUBLICATION SUMMARY
TITLE: Annual Budget
NARRATIVE: An ordinance adopting an annual budget for fiscal year July 1, 2024 – June 30, 2025 by estimating revenues and appropriating funds for the operation of City of Cadiz, Kentucky. A complete copy of the ordinance is available for inspection at City Hall during regular business hours.
CERTIFICATION: I, Allen O. Wilson, a regular practicing attorney, certify that I prepared this publication summary pursuant to KRS 83A.060(9).

LEGAL

BUDGET SUMMARY
AN ORDINANCE Relating to the Annual Budget and Appropriations.
BE IT ORDAINED BY THE FISCAL COURT OF TRIGG COUNTY, KENTUCKY:
WHEREAS, the proposed budget was tentatively approved by the fiscal court on the 6th day of May, 2024 and approved as to form and classification by the State Local Finance Office on the 14th day of May, 2024.

SECTION ONE: The following budget is adopted for the Fiscal Year 2024-25 and the amounts stated are appropriated for the purposes indicated.

General Fund		
General Government	\$	1,565,551.00
Protection to Persons and Property	\$	1,879,985.00
General Health and Sanitation	\$	685,040.00
Social Services	\$	106,093.00
Recreation and Culture	\$	452,894.00
Debt Service	\$	43,000.00
Administration	\$	1,435,360.00
TOTAL	\$	6,267,923.00
Road Fund		
Roads	\$	2,180,184.00
General Services	\$	38,600.00
Administration	\$	554,219.00
Distribution to Other Government Agencies	\$	35,000.00
TOTAL	\$	2,808,003.00
Jail Fund		
Protection to Persons and Property	\$	598,791.00
Administration	\$	99,850.00
TOTAL	\$	698,641.00
LGEA Fund		
General Health and Sanitation	\$	38,000.00
General Government	\$	36,000.00
Social Services	\$	50,000.00
Administration	\$	6,000.00
TOTAL	\$	130,000.00
Sheriff Fund		
Government	\$	964,985.00
Administration	\$	239,071.00
TOTAL	\$	1,204,056.00

LEGAL

ADVERTISEMENT FOR BIDS CONTRACT 586-24-01
LAKESIDE AREA WATER LINE REPLACEMENT BARKLEY LAKE WATER DISTRICT TRIGG COUNTY, KENTUCKY
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1333 Magnolia Street
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Kentucky Cabinet for Economic Development
Procurement Assistance Program 300 West Broadway Street
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or may be obtained from **Lynn Imaging, 328 E. Vine Street, Lexington, Kentucky 40507, phone 859/255-1021**, upon receipt of non-refundable deposit as follows:
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Sealed proposals for this Contract shall be clearly marked on the outside of the envelope as follows:
"Sealed Proposal for Contract 586-24-01, Lakeside Area Water Line Replacement. Not to be opened until 1:00 p.m., local time, July 2, 2024."

If forwarded by mail, the sealed envelope containing the proposal must be enclosed in another envelope and mailed to the Barkley Lake Water District, 1420 Canton Drive, Cadiz, Kentucky 42211, allowing sufficient time for such mailing to reach this address prior to the scheduled closing time for receipt of proposals.

Bids security shall be furnished in accordance to the Instructions to Bidders.
The attention of all contractors is called to the fact that any contract awarded under this Advertisement for Bids is expected to be funded in part by a loan from the Kentucky Infrastructure Authority (KIA) SRF Loan Program and a Cleaner Water Grant. The OWNER's share will be provided from current funds on hand and/or from revenue bonds.

Work to be performed by contractors involved in this project is subject to the minimum wage rates established by the U.S. Department of Labor under the provisions of the Davis-Bacon Act and the Kentucky Department of Labor, as set forth in Chapter 337 of the Kentucky Revised Statutes (per amendments adopted by the 1970 General Assembly). Contractors will be required to pay whichever minimum wage rate is higher for the individual crafts.

Bidders must comply with the President's Executive Order Nos. 11246 and 11375, which prohibit discrimination in employment regarding race, creed, color, sex or national origin. Where the President's Executive Order No. 11246 is shown, Executive Order No. 11375 also applies.

Bidders must make positive efforts to secure small or minority owned business enterprise participation in this Project. Bidders must comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, the Contract Work Hours Standard Act, and the Davis-Bacon Act.

Bidders must certify that they do not and will not maintain or provide for their employees any facilities that are segregated or based on race, color, creed, or national origin.

Bidders must show a certification of prior work under Executive Order 11246 (Equal Employment Opportunity) as amended. All contractors and subcontractors must comply with 41 CFR 60-4, in regard to affirmative action. This is to insure equal opportunity to females and minorities, and apply the time tables and goals set forth in 41 CFR 60-4.

The Barkley Lake Water District may consider informal any bid not prepared and submitted in accordance with the provisions of this advertisement and/or the Specifications and may waive any informalities or reject any and all bids. The award will be made to the lowest responsive, responsible bidder.

BARKLEY LAKE WATER DISTRICT Scott Bridges, Chairman
-EQUAL OPPORTUNITY EMPLOYER-

LEGAL

Notice
Fiduciary appointments have been made by the Trigg District Court as follows: Case No. 20-P-00116 appointed Robert B Frazer as Third-Party Administrator for the Estate of Brenda Jo Harper, deceased on November 12, 2020, 2365 Goose Hollow Road, Cadiz, KY 42211. Attorneys for the estate, Jack N. Lackey, Jr., Esq., Deatherage, Myers & Lackey, PLLC, 701 S. Main St., P.O. Box 1065, Hopkinsville, KY 42241-1065; Daniel N. Thomas, Esq., Thomas, Arvin & Adams, PLLC, 1209 S. Virginia Street, P.O. Box 675, Hopkinsville, KY 42241-0675; James A. Sigler, Esq., Keuler, Kelly, Hutchins, Blankenship & Sigler, LLP; 100 South 4th Street, Suite 400, Paducah, Ky 42001
All persons having claims against said estates are notified to present them to the Fiduciary verified according to law not later than six (6) months from date of qualification of personal representative.
This 3rd day of June 2024 /s/Denise Grissom, Deputy Clerk
Trigg District Court
41 Main Street
Cadiz, KY 42211
270-522-6270

LEGAL

Notice
Fiduciary appointments have been made by the Trigg District Court as follows: Case No. 23-P-00002 appointed Robert B Frazer as Third-Party Administrator for the Estate of Kenneth Harper, deceased on December 25, 2022, 2365 Goose Hollow Road, Cadiz, KY 42211. Attorneys for the estate, Jack N. Lackey, Jr., Esq., Deatherage, Myers & Lackey, PLLC, 701 S. Main St., P.O. Box 1065, Hopkinsville, KY 42241-1065; Daniel N. Thomas, Esq., Thomas, Arvin & Adams, PLLC, 1209 S. Virginia Street, P.O. Box 675, Hopkinsville, KY 42241-0675; James A. Sigler, Esq., Keuler, Kelly, Hutchins, Blankenship & Sigler, LLP; 100 South 4th Street, Suite 400, Paducah, Ky 42001
All persons having claims against said estates are notified to present them to the Fiduciary verified according to law not later than six (6) months from date of qualification of personal representative.
This 3rd day of June 2024 /s/Denise Grissom, Deputy Clerk
Trigg District Court
41 Main Street
Cadiz, KY 42211
270-522-6270


CLASSIFIED DEADLINE
FRIDAY - 3 PM
Contact Customer Service at
270-522-6605
classifieds@cadizrecord.com
Monday-Friday 7AM-3PM
Holidays advance deadlines by 24 hours.

LEGAL

REQUEST FOR BID (RFB) - BUILDING ADDITION
Trigg County Hospital (TCH) desires to have a 1000 square foot building addition added to the current TCH Medical Arts Building located at 250 Main St. Cadiz, KY.

GENERAL REQUIREMENTS
Bids must be in writing. Bids are due on or before 4:00 p.m. CST on June 24, 2024. Paper-based submissions must be received at Trigg County Hospital, 254 Main St., Cadiz, KY 42211. TCH reserves the right to reject any bid it deems incomplete or insufficient.

TCH is not liable for failure to receive any submitted application. It is the responsibility of the bidder to ensure that applications are timely received. Extension of this RFP is not a promise of a contract to any individual or entity. All material provided in response to the RFP will become the property of TCH and will be subject to any public disclosure required by the rules and regulations of that entity. TCH reserves the right to select multiple providers or no providers after the review process.

TCH reserves the right to cancel the RFB at any time and with no notice to bidders. TCH will not compensate bidders for time spent responding to the RFB. Bidders not selected for an interview will not be contacted.

TCH is an equal opportunity employer and not discriminate against individuals protected by state or federal law. The selected provider will be required to enter into a contract with TCH.

All contracts between the bidder and TCH must comply with all requirements of state and federal law and any additional information required by the funding source.

BIDDER AFFIRMATIONS
By submitting a bid, the bidder represents that:

(A) The proposal amount has been arrived at by the offeror independently. It has been submitted without collusion with, and without any agreement, understanding or planned common course of action with any other contractor, vendor of materials, supplies, equipment or services described in the bid, that is designed to limit independent bidding or competition.

(B) The contents of the proposal have not been communicated by the offeror or its employees or agents to any person not an employee or agent of the offeror, and will not be communicated to any such person before the proposal opening.

(C) The offeror is legally eligible to enter into a contract with TCH and the award of a contract shall not create any conflict of interest.

(D) Neither the offeror, nor its subcontractors, nor any of their principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal or state department or agency, local organization, hospital or entity. "

NECESSARY CONTENTS OF PROPOSAL
All bidders must adhere to the drawings, requirements, and information presented and discussed at the pre bid meeting held on 6/3/2024.

ADDITIONAL ELEMENTS OF PROPOSAL
Bidder must provide start date and completion date.

Bidder must be fully licensed and insured for work in Kentucky.

Bidder must provide workers compensation insurance for all employees or independent contractors working on this project.

Bidders may include other options. TCH will review those options and suggestions in furtherance of patient care and utility.

TCH reserves the right to request that any bidder submit additional information or provide an in-person presentation upon request.

QUESTIONS REGARDING OFFER
Contact Don Michael at Trigg County Hospital, dmichael@trigghospital.org for any questions and specifications. All questions will be answered via email and shared publicly with all potential bidders. Deadline for questions is June 21, 2024. TCH will answer no additional questions after that date.

TCH will not answer any verbal or telephone questions from any potential bidder.

SUBMISSION OF BID
Sealed Bids shall be delivered to Trigg County Hospital, At Don Michael CFO PO Box 312, 254 Main Street Cadiz, KY 42211 by 4:00 p.m. CST on June 24, 2024.

Bids will be opened on or around June 27, 2024 and evaluated. Evaluation will include, but not be limited to price, quality, warranty, availability, time until completion of project, reputation of bidder, and past experiences with bidder. Winning bidder will be contacted after evaluation and decision. No set date is provided for a determination as to any successful offer.

Trigg County Hospital reserves the right to reject any or all bids or portions thereof.

LEGAL

Notice
Fiduciary appointments have been made by the Trigg District Court as follows: Case No. 22-P-00136 appointed Russell Ray Kyler as Executor for the Estate of David Ray Kyler, deceased on September 17, 2022, 3449 South Road, Cadiz Ky 42211. Attorney for Estate, Vance Cook, PO Box 70, Princeton, KY 42445
All persons having claims against said estates are notified to present them to the Fiduciary verified according to law not later than six (6) months from date of qualification of personal representative. This 4th day of June 2024 /s/Denise Grissom, Deputy Clerk
Trigg District Court
41 Main Street
Cadiz, KY 42211
270-522-6270

LEGAL

Notice
Fiduciary appointments have been made by the Trigg District Court as follows: Case No. 24-P-00059 appointed Kelly Woodward as Executor for the Estate of Bobby Adkins, deceased on May 18, 2024, 609 Malcolms Point Road, Cadiz, 42211, on October 12, 2022.
Attorney for Estate: HB Quinn, PO Box 1549 Cadiz Ky 42211
All persons having claims against said estates are notified to present them to the Fiduciary verified according to law not later than six (6) months from date of qualification of personal representative.
This 7th day of June, 2024 /s/Shannon Ellis, Deputy Clerk
Trigg District Court
41 Main Street
Cadiz, KY 42211
270-522-6270

LEGAL

The following vehicle will be sold to the highest bidder via sealed bids on June 28th, 2024, at Cadiz City Hall. The vehicle was originally purchased by the City of Cadiz for Fire Protection and Fire Department use. The vehicle has been in service to the city since its purchase date. The vehicle has been taken out of service by the fire department due to the outdated equipment, maintenance costs and the need for a new and updated fire truck. The City of Cadiz will be taking sealed bids on this vehicle in accordance with KRS: 45A.365(3) and (4).

VEHICLE TO BE SOLD:
1975 Chevrolet C65 (Red in color)
427 cubic inch engine
Manual high/low Transmission
Mileage: 13,148
Howe Pump: not operational
VIN #: CTE675V153905

Sealed Bids must contain the following:
1. Item (described) that the person is wanting to purchase.
2. Name of individual wanting to purchase vehicle.
3. Phone number of purchasers
4. Dollar amount for the item that the purchaser is willing to give for the said vehicle. All information submitted must be legible.

The city will begin to receive bids on June 13th at 8:00 am. Bid submissions will no longer be accepted after June 27th at 4:00 pm. Submissions will be accepted at City Hall between those dates and times. No bids will be accepted after June 27th at 4:00pm. Bids will be opened at 8:00am at Cadiz City hall on June 28th, 2024 The City of Cadiz has the right to reject any and/or all bids

Titmus sets a women's 200-meter freestyle world record at Australia's Olympic swimming trials

BY THE ASSOCIATED PRESS
BRISBANE, Australia — Ariarne Titmus set a world record in the women's 200-meter freestyle

on Wednesday at Australia's Olympic swimming trials.

Titmus finished in 1 minute, 52.23 seconds in the final, taking almost

two-thirds of a second off Mollie O'Callaghan's world mark of 1:52.85 set at last year's world championships.

O'Callaghan placed

second at the Australian titles in 1:52.48.

Titmus, the Olympic champion in the 200- and

SEE RECORD/PAGE A10



AP File Photo/Nati Harnik

The College World Series logo is displayed in front of a batting cage during a Louisville team practice at TD Ameritrade Park, now Charles Schwab Field, in Omaha, Neb., in 2019.

CWS

FROM PAGE A5

day match Kentucky (45-14) of the SEC against the ACC's North Carolina State (38-21) and Texas A&M (49-13) against Florida (34-28) in an all-SEC meeting.

College baseball has never been better, coaches and administrators say. The shortening of the amateur draft since the pandemic has kept talented older players in school, regular-season television coverage has expanded and attendance has increased.

"I honestly believe we're probably in a golden age of college baseball right now," American Baseball Coaches Association executive director Craig Keilitz said.

Beneath the surface, there is concern the transformation of college athletics will further reduce the number of programs capable of competing at the highest level.

Baseball already is top heavy. The SEC has claimed four straight national championships and nine of the last 14, and has had at least one team in 14 of the past 15 finals. Since 2014, 50 of the 80 CWS teams have been from the SEC (31) or ACC (19).

Part of the sport's charm has been the ability of smaller programs to occasionally rise up and challenge the big-name brands, scenes familiar to fans of the March Madness basketball tournaments.

Evansville, which had one of the oldest rosters in the country this year, came within one win of going to Omaha by extending its super regional against No. 1 national seed Tennessee to three games. Oral Roberts made it to the CWS last year and won a game. Stony Brook was here along with Kent State in 2012. Coastal Carolina, then in the Big South, won the national title in 2016.

"Those are the teams you root for," Cal State Fullerton coach Jason Dietrich said. "Not to you don't root for the other schools, but you love the underdog, the

teams that don't have the bells and whistles."

TRANSFERS AND TENDER

As with other sports, the transfer portal and athletes' ability to earn endorsement money through name, image and likeness deals have turned baseball on its head.

Florida State, Kentucky and Texas A&M each went into their super regionals with five players in their everyday lineups who started at other Division I schools. The number was two for North Carolina, NC State and Tennessee and one for Virginia.

Kentucky had the most D-I transfers on its roster with 12; NC State had the fewest with five.

Baseball receives only 4.8% of overall NIL spending, according to Opendorse, and is far behind the top three sports — football, men's basketball and women's basketball. The top 25 NIL earners in baseball are making an average of \$45,000 per year.

But with most players receiving a partial scholarship because of the current NCAA limit of 11.7 per team, any income helps offset cost of attendance. Schools offering the most NIL money through their donors naturally get the best players.

Since July 1, 2021, the average estimated annual NIL spending per SEC baseball team was \$820,000 to \$920,000, based on more than 150,000 NIL transactions disclosed through or processed by Opendorse, a company that works with dozens of schools and more than 40 collectives on NIL activities. A number of SEC teams are said to be spending well into the millions.

The average NIL spending in the ACC is half that of the SEC but still ranks second among all conferences.

If scholarship limits are removed, which is the expectation, deep-pocketed programs could choose to fully fund their programs.

This year, each program can divvy up 11.7 scholarships among 32 players. If all 32 get

full rides in the future, the chasm between the haves and have-nots in the sport surely will deepen. And there could be additional money for baseball players in the major conferences as part of the revenue-sharing plan proposed in the NCAA's antitrust case settlement.

RIPPLE EFFECTS

Dietrich grew up in Southern California and remembers when the small-budget Titans were one of college baseball's best programs. Fullerton has appeared in 18 CWS, most recently in 2017, and won four national titles, tied for fifth most.

Dietrich can't offer the amenities of the major-conference schools and must recruit players who often need a year or two of seasoning. Fullerton has smaller NIL money available compared with larger programs, so Dietrich is susceptible to losing the players he develops and can land larger endorsement deals elsewhere.

Fullerton went to an NCAA regional last year

but lost three starting position players and its best reliever to the draft and then had another everyday starter and a bullpen arm join five teammates in the transfer portal. The Titans were 16-38 this season.

"We're doing everything we can," Dietrich said. "Our goal is to go to Omaha and compete for a national championship. We see there are some obstacles ahead, but that's just the way it is."

Big Ten-bound UCLA is one of the biggest brands on the West Coast but has struggled since making a regional in 2022. Eleven players went into the portal the next two cycles, and most were difference-makers like pitchers Thatcher Hurd and Gage Jump (both to LSU).

GUN & KNIFE SHOW
Evansville, IN.
Vanderburgh County
Fairgrounds
June. 15th & 16th
Sat. 9-5, Sun. 9-3.
\$6 admission
For more info.
Call 765-993-8942

GARAGE SALE

BIG YARD SALE
415 Elaine Dr
Friday and Saturday 7a - 5p
Masonry and Concrete Tools and Equipment, Electric/Hand Tools, Fishing Reels/Rods, Ammunition, Quilts/Tops, Toys, Pots/Pans, Clothes, and much more!

GARAGE SALE

Huge 3 Family Yard Sale
Lacy/Fearsville area
at intersection of 189 & 107
Friday, June. 14th 7am- 5pm
& Saturday, June. 15th 7am- ?
Cat house, cowgirl boots, ladies clothes Medium size 8 & 10. Home Decor, and a variety of other items

Missions Yardsale Friday & Saturday 6 a.m.-1 p.m.

Appliances, furniture, household items, toys, clothes, knick knacks, bikes, scooters, holiday items and much more

936 Skyline Drive



Kentucky New Era.

CLASSIFIED DEADLINES

PUBLICATION DATE

TUESDAY
THURSDAY
SATURDAY

DEADLINE

THURSDAY 3 PM
MONDAY 3 PM
WEDNESDAY 3 PM

Contact Customer Service at
(270) 886-4444, Option 1 or
classifieds@kentuckynewera.com
Monday-Friday 7AM-3PM

Holidays advance deadlines by 24 hours.

EMPLOYMENT

REQUEST FOR QUALIFICATIONS

The Todd County Fiscal Court is requesting proposals for the identification, design, and implementation of innovative solutions for energy efficiency improvements on a guaranteed performance contracting basis. The purpose of issuing this Request for Qualifications (RFQ) is to identify and select a qualified provider, or Energy Services Company (ESCO), to perform the implementation of a Guaranteed Energy Savings Contract (GES) in accordance with KRS 45A.352 – guaranteed energy savings contracts involving local public agencies. It is anticipated that the project may be funded in part through but not limited to the Energy Efficiency Block Grant Program, USDA Rural Development, and/or other federal, state, and local funds that address energy efficiency needs.

In order to be considered, proposals must be received by 3:00PM local time (CST) on July 26, 2024. Two (2) hard copies of the proposal will be required and one (1) electronic copy. They should be sealed and clearly labeled Todd County RFQ for Energy Savings Performance Contract Project. The Todd County Fiscal Court reserves the right to reject any or all proposals.

Questions concerning this Request for Qualifications should be addressed to Todd Mansfield, Judge Executive, Todd County Fiscal Court, 202 E. Washington Street, Elkton, KY 42220, phone (270) 265-9966, email tmansfield@toddcogov.com. All questions should be submitted in writing no less than 10 days prior to the deadline on July 26, 2024. For a copy of the full RFQ with the scoring criteria and information to be included in the proposal, please contact Todd Mansfield at tmansfield@toddcogov.com. Proposals will be evaluated on the basis of written materials.

The Todd County Fiscal Court will adhere to the provisions of Title VI of the Civil Rights Act of 1964, and Section 3 in the implementation of this project. No person shall be excluded from participation in, denied benefits of, or subjected to discrimination in the implementation of this program on the grounds of race, color, national origin, or sex. Attention is particularly called to the requirements as to conditions of employment to be observed under the contract, Section 3, Segregated Facilities, Section 109, Title VI, E.O. 11246, the Anti-Kickback Act and Section 504 requirements.

All Proposals should be addressed to: Todd Mansfield, Judge Executive, Todd County Fiscal Court, P.O. Box 355, 202 E. Washington Street, Elkton, KY 42220; electronic proposals may be submitted via email to tmansfield@toddcogov.com. Proposals received after the deadline on July 26, 2024 at 3:00PM CST will not be considered.

Equal Opportunity Employer

LEGAL

ADVERTISEMENT FOR BIDS CONTRACT 586-24-01 LAKESIDE AREA WATER LINE REPLACEMENT BARKLEY LAKE WATER DISTRICT TRIGG COUNTY, KENTUCKY

Sealed proposals for the following work will be received by the Barkley Lake Water District, Trigg County, Kentucky at the Barkley Lake Water District, 1420 Canton Road, Cadiz, Kentucky 42211, until 1:00 p.m., local time, July 2, 2024, for furnishing labor and materials and performing all work as set forth by the Advertisement, General Conditions, Specifications and/or Drawings prepared by Bell Engineering. Immediately following the scheduled closing time for the reception of bids, all proposals which have been submitted in accordance with the above conditions will be publicly opened and read aloud. A non-mandatory prebid conference will be held at 10:00 a.m. local time, on June 24, 2024, at the office of the Barkley Lake Water District, 1420 Canton Road, Cadiz, Kentucky 42211.

The work to be bid is described as follows:

CONTRACT 586-24-01
Installation of approximately 12,150 linear feet of new 6-inch water lines, 85,300 linear feet of 4-inch water lines, 1,400 linear feet of 3-inch water lines, and appurtenances. Drawings, Specifications and Contract Documents may be examined at the following places:
Barkley Lake Water District 1420 Canton Road
Cadiz, Kentucky 42211

Bell Engineering
107 Forbes Drive Hopkinsville, Kentucky 42240

Associated Builders and Contractors of Kentuckiana, Inc.
1333 Magnolia Street
Bowling Green, Kentucky 42104

Kentucky Cabinet for Economic Development
Procurement Assistance Program 300 West Broadway Street
Old Capitol Annex Frankfort, Kentucky 40601 (Advertisement for Bid Only)

or may be obtained from Lynn Imaging, 328 E. Vine Street, Lexington, Kentucky 40507, phone 859/255-1021, upon receipt of non-refundable deposit as follows:

CONTRACT 586-24-01--\$200.00
Sealed proposals for this Contract shall be clearly marked on the outside of the envelope as follows:
"Sealed Proposal for Contract 586-24-01, Lakeside Area Water Line Replacement. Not to be opened until 1:00 p.m., local time, July 2, 2024."

If forwarded by mail, the sealed envelope containing the proposal must be enclosed in another envelope and mailed to the Barkley Lake Water District, 1420 Canton Drive, Cadiz, Kentucky 42211, allowing sufficient time for such mailing to reach this address prior to the scheduled closing time for receipt of proposals.

Bids security shall be furnished in accordance to the Instructions to Bidders.

The attention of all contractors is called to the fact that any contract awarded under this Advertisement for Bids is expected to be funded in part by a loan from the Kentucky Infrastructure Authority (KIA) SRF Loan Program and a Cleaner Water Grant. The OWNER's share will be provided from current funds on hand and/or from revenue bonds.

Work to be performed by contractors involved in this project is subject to the minimum wage rates established by the U.S. Department of Labor under the provisions of the Davis-Bacon Act and the Kentucky Department of Labor, as set forth in Chapter 337 of the Kentucky Revised Statutes (per amendments adopted by the 1970 General Assembly). Contractors will be required to pay whichever minimum wage rate is higher for the individual crafts.

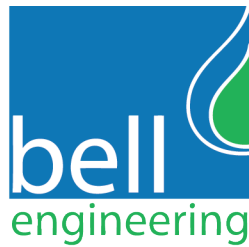
Bidders must comply with the President's Executive Order Nos. 11246 and 11375, which prohibit discrimination in employment regarding race, creed, color, sex or national origin. Where the President's Executive Order No. 11246 is shown, Executive Order No. 11375 also applies.

Bidders must make positive efforts to secure small or minority owned business enterprise participation in this Project. Bidders must comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, the Contract Work Hours Standard Act, and the Davis-Bacon Act. Bidders must certify that they do not and will not maintain or provide for their employees any facilities that are segregated or based on race, color, creed, or national origin. Bidders must show a certification of prior work under Executive Order 11246 (Equal Employment Opportunity) as amended. All contractors and subcontractors must comply with 41 CFR 60-4, in regard to affirmative action. This is to insure equal opportunity to females and minorities, and apply the time tables and goals set forth in 41 CFR 60-4.

The Barkley Lake Water District may consider informal any bid not prepared and submitted in accordance with the provisions of this advertisement and/or the Specifications and may waive any informalities or reject any and all bids. The award will be made to the lowest responsive, responsible bidder.

BARKLEY LAKE WATER DISTRICT Scott Bridges, Chairman
-EQUAL OPPORTUNITY EMPLOYER-

Exhibit 12
Engineer's
Recommendation
of Award



July 26, 2024

Mr. Scott Bridges
 Chairman
 Barkley Lake Water District
 P.O. Box 308
 Cadiz, Kentucky 42211

Subject: **Recommendation for Award**
Contract 586-24-01
 Lakeside Water Line Replacement Project
 Trigg County, Kentucky

Dear Mr. Bridges,

We are pleased to submit our recommendation for the subject contract. After your bid opening on July 3, 2024, Bell Engineering reviewed and tabulated all bids received. We enclose one copy of the Bid Tabulation for your review and acceptance as desired.

Contractor interest in your project was satisfactory with three (3) bids being submitted. The project low bidder for the project was determined. Since all bids exceeded the \$3,361,190 announced as funds available, divisions were removed in reverse alphabetical order until a bidder reached the funding award threshold. The same bidder remained low through the reduction process. Bids are summarized as follows:

SUMMARY OF KEY BID RESULTS

BIDDER RANK	BIDDER NAME	BID AMOUNT	BID AFTER REMOVAL OF DIV. H THRU D
1	Youngblood Excavating and Contracting, LLC	\$7,779,700.00	\$2,983,060.00
2	Twin States Utilities and Excavation, Inc.	\$9,918,448.00	\$3,608,805.00
3	Norris Brothers Excavating, LLC	\$14,756,923.00	\$3,741,996.00

At the time of the bid opening, the low bidder, Youngblood Excavating, provided a listing of past and current construction projects. Bell Engineering has had a work history with Youngblood Excavating and is familiar with their work and abilities. Following the bid opening, Mr. Kevin Kell of Youngblood Excavating was contacted and debriefed on his bid. Youngblood Excavating will self-perform all of the project and Mr. Kell is satisfied with their bid price. Bell Engineering has a favorable opinion of this contractor.

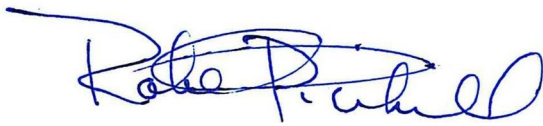
The amount of any contract award should be in accordance with available monies. Based upon the

Mr. Scott Bridges
July 26, 2024
Page 2

July 23, 2024 grant award increase of \$686,695.00 to KIA Grant 22CWW357 and commitments of local funding it appears funds could be available to award Division A through E for an award of \$5,089,181.00. Assuming sufficient funds are available for construction of Divisions A Through E, we recommend the Barkley Lake Water District award the project to **Youngblood Excavating and Contracting, LLC. of Mayfield, KY.** We also recommend a contingent award of Division F in the amount of \$847,1255 should additional funds become available in the course of this project award.

We will be happy to meet with you and other board members to discuss bid results at your convenience, if desired. Should you have any questions about this or any other matter, please do not hesitate to call.

Sincerely,
Bell Engineering



Robert L. Pickerill, P.E.
Vice President

Enclosure

CONTRACT 586-24-01 LAKESIDE AREA WATER LINE REPLACEMENT
 BARKLEY LAKE WATER DISTRICT
 TRIGG COUNTY, KENTUCKY

We certify that the following is a true and complete tabulation of all bids received by the Barkley Lake Water District on July 2, 2024, for the titled project.

BELL ENGINEERING




Youngblood Excavating and Contracting LLC 111 Pioneer Industrial Drive Mayfield, Kentucky 42066	Twin States Utilities and Excavation Inc. 9440 Old Glasgow Road Mount Hermon, Kentucky 42157	Norris Brothers Excavating LLC 22 Northside Lane Crossville, Tennessee 38571
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Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
If the Contract is to be awarded, it will be awarded to the lowest responsive, responsible Base Bidder whose evaluation by the OWNER indicates to the OWNER that the award will be in the best interest of the Project.									
DIVISION A-WATER LINES									
1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	4,180	L.F.	\$91.00	\$380,380.00	\$82.00	\$342,760.00	\$54.00	\$225,720.00
2.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	6,187	L.F.	\$74.00	\$457,838.00	\$73.00	\$451,651.00	\$52.00	\$321,724.00
3.	3-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	600	L.F.	\$72.00	\$43,200.00	\$71.00	\$42,600.00	\$50.00	\$30,000.00
4.	6-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	4	Each	\$2,450.00	\$9,800.00	\$2,464.00	\$9,856.00	\$1,500.00	\$6,000.00
5.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	7	Each	\$2,125.00	\$14,875.00	\$2,024.00	\$14,168.00	\$1,400.00	\$9,800.00
6.	3-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	4	Each	\$2,300.00	\$9,200.00	\$1,819.00	\$7,276.00	\$1,300.00	\$5,200.00
7.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	6	Each	\$4,890.00	\$29,340.00	\$5,456.00	\$32,736.00	\$5,200.00	\$31,200.00
8.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	5	Each	\$4,445.00	\$22,225.00	\$5,614.00	\$28,070.00	\$6,000.00	\$30,000.00
9.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$3,800.00	\$3,800.00	\$5,119.00	\$5,119.00	\$5,500.00	\$5,500.00
10.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	71	Each	\$725.00	\$51,475.00	\$750.00	\$53,250.00	\$1,200.00	\$85,200.00
11.	3/4-Inch Corporation Stop and Saddle for 6-Inch PVC Pipe, Complete	19	Each	\$350.00	\$6,650.00	\$313.00	\$5,947.00	\$1,200.00	\$22,800.00
12.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	49	Each	\$300.00	\$14,700.00	\$291.00	\$14,259.00	\$1,200.00	\$58,800.00
13.	3/4-Inch Corporation Stop and Saddle for 3-Inch PVC Pipe, Complete	3	Each	\$300.00	\$900.00	\$285.00	\$855.00	\$1,200.00	\$3,600.00
14.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	340	L.F.	\$74.00	\$25,160.00	\$15.00	\$5,100.00	\$60.00	\$20,400.00
15.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	4	Each	\$3,900.00	\$15,600.00	\$3,500.00	\$14,000.00	\$4,000.00	\$16,000.00
16.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	4	Each	\$2,400.00	\$9,600.00	\$3,500.00	\$14,000.00	\$4,000.00	\$16,000.00
17.	Tie in to Existing 3-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,300.00	\$6,300.00	\$4,500.00	\$4,500.00	\$5,000.00	\$5,000.00
18.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,450.00	\$6,450.00	\$4,500.00	\$4,500.00	\$4,000.00	\$4,000.00
19.	Tie in to Existing 6-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,550.00	\$6,550.00	\$4,500.00	\$4,500.00	\$6,000.00	\$6,000.00
20.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	1,759	L.F.	\$18.00	\$31,662.00	\$50.00	\$87,950.00	\$55.00	\$96,745.00
21.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	40	L.F.	\$190.00	\$7,600.00	\$50.00	\$2,000.00	\$100.00	\$4,000.00

				Youngblood Excavating and Contracting LLC 111 Pioneer Industrial Drive Mayfield, Kentucky 42066		Twin States Utilities and Excavation Inc. 9440 Old Glasgow Road Mount Hermon, Kentucky 42157		Norris Brothers Excavating LLC 22 Northside Lane Crossville, Tennessee 38571	
Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
22.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	263	L.F.	\$23.00	\$6,049.00	\$3.00	\$789.00	\$20.00	\$5,260.00
23.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	2,062	L.F.	\$17.00	\$35,054.00	\$10.00	\$20,620.00	\$26.00	\$53,612.00
24.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	10	C.Y.	\$28.00	\$280.00	\$50.00	\$500.00	\$40.00	\$400.00
25.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$550.00 *	\$5,500.00	\$40.00	\$400.00	\$45.00	\$450.00
26.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$35.00	\$350.00	\$40.00	\$400.00
SUBTOTAL-DIVISION A					* \$1,200,738.00		\$1,167,756.00		\$1,063,811.00
DIVISION B-WATER LINES									
1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	1,928	L.F.	\$67.00	\$129,176.00	\$82.00	\$158,096.00	\$54.00	\$104,112.00
2.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	10,732	L.F.	\$45.00	\$482,940.00	\$73.00	\$783,436.00	\$52.00	\$558,064.00
3.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	12	Each	\$2,125.00	\$25,500.00	\$2,024.00	\$24,288.00	\$1,400.00	\$16,800.00
4.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	8	Each	\$4,890.00	\$39,120.00	\$5,456.00	\$43,648.00	\$5,200.00	\$41,600.00
5.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$4,445.00	\$4,445.00	\$5,614.00	\$5,614.00	\$6,000.00	\$6,000.00
6.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	134	Each	\$725.00	\$97,150.00	\$750.00	\$100,500.00	\$1,200.00	\$160,800.00
7.	3/4-Inch Corporation Stop and Saddle for 6-Inch PVC Pipe, Complete	13	Each	\$350.00	\$4,550.00	\$313.00	\$4,069.00	\$1,200.00	\$15,600.00
8.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	121	Each	\$300.00	\$36,300.00	\$291.00	\$35,211.00	\$1,200.00	\$145,200.00
9.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	635	L.F.	\$74.00	\$46,990.00	\$15.00	\$9,525.00	\$60.00	\$38,100.00
10.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	8	Each	\$2,400.00	\$19,200.00	\$3,500.00	\$28,000.00	\$4,000.00	\$32,000.00
11.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	9	Each	\$6,450.00	\$58,050.00	\$4,500.00	\$40,500.00	\$4,000.00	\$36,000.00
12.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	2,119	L.F.	\$18.00	\$38,142.00	\$50.00	\$105,950.00	\$55.00	\$116,545.00
13.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	80	L.F.	\$190.00	\$15,200.00	\$50.00	\$4,000.00	\$100.00	\$8,000.00
14.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	2,062	L.F.	\$17.00	\$35,054.00	\$10.00	\$20,620.00	\$26.00	\$53,612.00
15.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$28.00	\$140.00	\$50.00	\$250.00	\$45.00	\$225.00
16.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$40.00	\$400.00	\$45.00	\$450.00
17.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	20	Ton	\$55.00	\$1,100.00	\$35.00	\$700.00	\$40.00	\$800.00
SUBTOTAL-DIVISION B					\$1,033,607.00		\$1,364,807.00		\$1,333,908.00

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Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
DIVISION C-WATER LINES									
1.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	11,575	L.F.	\$45.00	\$520,875.00	\$73.00	\$844,975.00	\$52.00	\$601,900.00
2.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	12	Each	\$2,125.00	\$25,500.00	\$2,024.00	\$24,288.00	\$1,400.00	\$16,800.00
3.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	3	Each	\$4,890.00	\$14,670.00	\$5,456.00	\$16,368.00	\$5,200.00	\$15,600.00
4.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	2	Each	\$4,445.00	\$8,890.00	\$5,614.00	\$11,228.00	\$6,000.00	\$12,000.00
5.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$3,800.00	\$3,800.00	\$5,119.00	\$5,119.00	\$5,500.00	\$5,500.00
6.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	49	Each	\$725.00	\$35,525.00	\$750.00	\$36,750.00	\$4,000.00	\$196,000.00
7.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	49	Each	\$300.00	\$14,700.00	\$291.00	\$14,259.00	\$1,200.00	\$58,800.00
8.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	245	L.F.	\$74.00	\$18,130.00	\$15.00	\$3,675.00	\$1,200.00	\$294,000.00
9.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	2	Each	\$3,900.00	\$7,800.00	\$3,500.00	\$7,000.00	\$4,000.00	\$8,000.00
10.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	5	Each	\$2,400.00	\$12,000.00	\$3,500.00	\$17,500.00	\$4,000.00	\$20,000.00
11.	Tie in to Existing 2-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,000.00	\$6,000.00	\$4,000.00	\$4,000.00	\$4,000.00	\$4,000.00
12.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	6	Each	\$6,450.00	\$38,700.00	\$4,500.00	\$27,000.00	\$4,000.00	\$24,000.00
13.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	1,027	L.F.	\$18.00	\$18,486.00	\$50.00	\$51,350.00	\$55.00	\$56,485.00
14.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	20	L.F.	\$190.00	\$3,800.00	\$50.00	\$1,000.00	\$100.00	\$2,000.00
15.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	20	L.F.	\$23.00	\$460.00	\$3.00	\$60.00	\$20.00	\$400.00
16.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	1,067	L.F.	\$17.00	\$18,139.00	\$10.00	\$10,670.00	\$26.00	\$27,742.00
17.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$28.00	\$140.00	\$50.00	\$250.00	\$40.00	\$200.00
18.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$40.00	\$400.00	\$45.00	\$450.00
19.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$35.00	\$350.00	\$40.00	\$400.00
SUBTOTAL-DIVISION C					\$748,715.00		\$1,076,242.00		\$1,344,277.00
DIVISION D-WATER LINES									
1.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	13,554	L.F.	\$74.00	\$1,002,996.00	\$73.00	\$989,442.00	\$52.00	\$704,808.00
2.	3-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	810	L.F.	\$72.00	\$58,320.00	\$71.00	\$57,510.00	\$50.00	\$40,500.00
3.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	10	Each	\$2,125.00	\$21,250.00	\$2,024.00	\$20,240.00	\$58.00	\$580.00
4.	3-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	3	Each	\$2,300.00	\$6,900.00	\$1,819.00	\$5,457.00	\$1,300.00	\$3,900.00
5.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	8	Each	\$4,890.00	\$39,120.00	\$5,456.00	\$43,648.00	\$5,200.00	\$41,600.00
6.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	5	Each	\$4,445.00	\$22,225.00	\$5,614.00	\$28,070.00	\$6,000.00	\$30,000.00

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Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
7.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$3,800.00	\$3,800.00	\$5,119.00	\$5,119.00	\$4,000.00	\$4,000.00
8.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	79	Each	\$725.00	\$57,275.00	\$750.00	\$59,250.00	\$1,200.00	\$94,800.00
9.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	78	Each	\$300.00	\$23,400.00	\$291.00	\$22,698.00	\$1,200.00	\$93,600.00
10.	3/4-Inch Corporation Stop and Saddle for 3-Inch PVC Pipe, Complete	1	Each	\$300.00	\$300.00	\$285.00	\$285.00	\$1,200.00	\$1,200.00
11.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	395	L.F.	\$74.00	\$29,230.00	\$15.00	\$5,925.00	\$60.00	\$23,700.00
12.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	1	Each	\$3,900.00	\$3,900.00	\$3,500.00	\$3,500.00	\$4,000.00	\$4,000.00
13.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	20	Each	\$2,400.00	\$48,000.00	\$3,500.00	\$70,000.00	\$4,000.00	\$80,000.00
14.	Tie in to Existing 3-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,300.00	\$6,300.00	\$4,500.00	\$4,500.00	\$4,000.00	\$4,000.00
15.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	5	Each	\$6,450.00	\$32,250.00	\$4,500.00	\$22,500.00	\$4,000.00	\$20,000.00
16.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	1,280	L.F.	\$18.00	\$23,040.00	\$50.00	\$64,000.00	\$55.00	\$70,400.00
17.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	453	L.F.	\$23.00	\$10,419.00	\$3.00	\$1,359.00	\$26.00	\$11,778.00
18.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	1,733	L.F.	\$17.00	\$29,461.00	\$10.00	\$17,330.00	\$26.00	\$45,058.00
19.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$28.00	\$140.00	\$50.00	\$250.00	\$45.00	\$225.00
20.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$40.00	\$400.00	\$45.00	\$450.00
21.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$35.00	\$350.00	\$40.00	\$400.00
SUBTOTAL-DIVISION D					* \$1,419,426.00		\$1,421,833.00		\$1,274,999.00
DIVISION E-WATER LINES									
1.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	10,708	L.F.	\$45.00	\$481,860.00	\$73.00	\$781,684.00	\$52.00	\$556,816.00
2.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	11	Each	\$2,125.00	\$23,375.00	\$2,024.00	\$22,264.00	\$1,400.00	\$15,400.00
3.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	3	Each	\$4,890.00	\$14,670.00	\$5,456.00	\$16,368.00	\$5,200.00	\$15,600.00
4.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$4,445.00	\$4,445.00	\$5,614.00	\$5,614.00	\$6,000.00	\$6,000.00
5.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$3,800.00	\$3,800.00	\$5,119.00	\$5,119.00	\$4,000.00	\$4,000.00
6.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	67	Each	\$725.00	\$48,575.00	\$750.00	\$50,250.00	\$1,200.00	\$80,400.00
7.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	67	Each	\$300.00	\$20,100.00	\$291.00	\$19,497.00	\$60.00	\$4,020.00
8.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	335	L.F.	\$74.00	\$24,790.00	\$15.00	\$5,025.00	\$60.00	\$20,100.00
9.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	2	Each	\$3,900.00	\$7,800.00	\$3,500.00	\$7,000.00	\$4,000.00	\$8,000.00
10.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	1	Each	\$2,400.00	\$2,400.00	\$3,500.00	\$3,500.00	\$4,000.00	\$4,000.00
11.	Tie in to Existing 2-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,000.00	\$6,000.00	\$4,000.00	\$4,000.00	\$4,000.00	\$4,000.00
12.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	2	Each	\$6,450.00	\$12,900.00	\$4,500.00	\$9,000.00	\$4,000.00	\$8,000.00

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Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
13.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	964	L.F.	\$18.00	\$17,352.00	\$50.00	\$48,200.00	\$5,500.00 **	\$5,302,000.00
14.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	25	L.F.	\$23.00	\$575.00	\$3.00	\$75.00	\$26.00	\$650.00
15.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	989	L.F.	\$17.00	\$16,813.00	\$10.00	\$9,890.00	\$26.00	\$25,714.00
16.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$28.00	\$140.00	\$50.00	\$250.00	\$45.00	\$225.00
17.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$40.00	\$400.00	\$45.00	\$450.00
18.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$35.00	\$350.00	\$40.00	\$400.00
SUBTOTAL-DIVISION E					\$686,695.00		\$988,486.00		\$6,055,775.00
DIVISION F-WATER LINES									
1.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	11,263	L.F.	\$45.00	\$506,835.00	\$73.00	\$822,199.00	\$52.00	\$585,676.00
2.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	19	Each	\$2,125.00	\$40,375.00	\$2,024.00	\$38,456.00	\$5,600.00	\$106,400.00
3.	2-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	1	Each	\$1,900.00	\$1,900.00	\$1,644.00	\$1,644.00	\$1,200.00	\$1,200.00
4.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	3	Each	\$4,890.00	\$14,670.00	\$5,456.00	\$16,368.00	\$5,200.00	\$15,600.00
5.	8-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$5,550.00	\$5,550.00	\$6,178.00	\$6,178.00	\$8,000.00	\$8,000.00
6.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	64	Each	\$725.00	\$46,400.00	\$750.00	\$48,000.00	\$1,200.00	\$76,800.00
7.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	64	Each	\$300.00	\$19,200.00	\$291.00	\$18,624.00	\$1,200.00	\$76,800.00
8.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	320	L.F.	\$74.00	\$23,680.00	\$15.00	\$4,800.00	\$60.00	\$19,200.00
9.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	1	Each	\$3,900.00	\$3,900.00	\$3,500.00	\$3,500.00	\$4,000.00	\$4,000.00
10.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	20	Each	\$2,400.00	\$48,000.00	\$3,500.00	\$70,000.00	\$4,000.00	\$80,000.00
11.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	13	Each	\$6,450.00	\$83,850.00	\$4,500.00	\$58,500.00	\$4,000.00	\$52,000.00
12.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	1,335	L.F.	\$18.00	\$24,030.00	\$50.00	\$66,750.00	\$55.00	\$73,425.00
13.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	120	L.F.	\$23.00	\$2,760.00	\$3.00	\$360.00	\$26.00	\$3,120.00
14.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	1,455	L.F.	\$17.00	\$24,735.00	\$10.00	\$14,550.00	\$26.00	\$37,830.00
15.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer	5	C.Y.	\$28.00	\$140.00	\$50.00	\$250.00	\$45.00	\$225.00

				Youngblood Excavating and Contracting LLC 111 Pioneer Industrial Drive Mayfield, Kentucky 42066		Twin States Utilities and Excavation Inc. 9440 Old Glasgow Road Mount Hermon, Kentucky 42157		Norris Brothers Excavating LLC 22 Northside Lane Crossville, Tennessee 38571	
Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
16.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$40.00	\$400.00	\$45.00	\$450.00
17.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$35.00	\$350.00	\$40.00	\$400.00
SUBTOTAL-DIVISION F					\$847,125.00	\$1,170,929.00	\$1,141,126.00		
DIVISION G-WATER LINES									
1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	5,389	L.F.	\$51.00	\$274,839.00	\$82.00	\$441,898.00	\$55.00	\$296,395.00
2.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	6,286	L.F.	\$42.00	\$264,012.00	\$73.00	\$458,878.00	\$53.00	\$333,158.00
3.	6-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	3	Each	\$2,450.00	\$7,350.00	\$2,464.00	\$7,392.00	\$1,500.00	\$4,500.00
4.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	11	Each	\$2,125.00	\$23,375.00	\$2,024.00	\$22,264.00	\$1,400.00	\$15,400.00
5.	3-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	1	Each	\$2,300.00	\$2,300.00	\$1,819.00	\$1,819.00	\$1,300.00	\$1,300.00
6.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	2	Each	\$4,890.00	\$9,780.00	\$5,456.00	\$10,912.00	\$5,200.00	\$10,400.00
7.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	3	Each	\$4,445.00	\$13,335.00	\$5,614.00	\$16,842.00	\$6,000.00	\$18,000.00
8.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	1	Each	\$3,800.00	\$3,800.00	\$5,119.00	\$5,119.00	\$4,000.00	\$4,000.00
9.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	45	Each	\$725.00	\$32,625.00	\$750.00	\$33,750.00	\$4,000.00	\$180,000.00
10.	3/4-Inch Corporation Stop and Saddle for 6-Inch PVC Pipe, Complete	14	Each	\$350.00	\$4,900.00	\$313.00	\$4,382.00	\$1,200.00	\$16,800.00
11.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	31	Each	\$300.00	\$9,300.00	\$291.00	\$9,021.00	\$1,200.00	\$37,200.00
12.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	225	L.F.	\$74.00	\$16,650.00	\$15.00	\$3,375.00	\$60.00	\$13,500.00
13.	Cut, Plug, and Block Existing Watermain, Where Watermain is to remain in service, Per Detail on Plans, All Sizes, Complete	1	Each	\$3,900.00	\$3,900.00	\$3,500.00	\$3,500.00	\$4,000.00	\$4,000.00
14.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	11	Each	\$2,400.00	\$26,400.00	\$3,500.00	\$38,500.00	\$4,000.00	\$44,000.00
15.	Tie in to Existing 3-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,300.00	\$6,300.00	\$4,500.00	\$4,500.00	\$4,000.00	\$4,000.00
16.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	9	Each	\$6,450.00	\$58,050.00	\$4,500.00	\$40,500.00	\$1,400.00	\$12,600.00
17.	Tie in to Existing 6-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,550.00	\$6,550.00	\$4,500.00	\$4,500.00	\$6,000.00	\$6,000.00
18.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	899	L.F.	\$18.00	\$16,182.00	\$50.00	\$44,950.00	\$55.00	\$49,445.00
19.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	24	L.F.	\$190.00	\$4,560.00	\$50.00	\$1,200.00	\$26.00	\$624.00
20.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	360	L.F.	\$23.00 *	\$8,280.00	\$3.00	\$1,080.00	\$26.00	\$9,360.00
21.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	1,283	L.F.	\$17.00	\$21,811.00	\$10.00	\$12,830.00	\$26.00	\$33,358.00
22.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$28.00	\$140.00	\$50.00	\$250.00	\$45.00	\$225.00
23.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$40.00	\$400.00	\$45.00	\$450.00
24.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$35.00	\$350.00	\$40.00	\$400.00
SUBTOTAL-DIVISION G					* \$815,539.00	\$1,168,212.00	* \$1,095,115.00		

				Youngblood Excavating and Contracting LLC 111 Pioneer Industrial Drive Mayfield, Kentucky 42066		Twin States Utilities and Excavation Inc. 9440 Old Glasgow Road Mount Hermon, Kentucky 42157		Norris Brothers Excavating LLC 22 Northside Lane Crossville, Tennessee 38571	
Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
DIVISION H-WATER LINES									
1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	647	L.F.	\$51.00	\$32,997.00	\$82.00	\$53,054.00	\$55.00	\$35,585.00
2.	4-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	15,006	L.F.	\$40.00	\$600,240.00	\$73.00	\$1,095,438.00	\$52.00	\$780,312.00
3.	6-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	1	Each	\$2,450.00	\$2,450.00	\$2,464.00	\$2,464.00	\$1,500.00	\$1,500.00
4.	4-Inch Ductile Iron, Mechanical Joint Gate Valve, Valve Box, and Collar, Complete	6	Each	\$2,125.00	\$12,750.00	\$2,024.00	\$12,144.00	\$1,400.00	\$8,400.00
5.	Flush Hydrant Assembly, Furnish and Install, Per Detail on Plans, Complete	9	Each	\$4,890.00	\$44,010.00	\$5,456.00	\$49,104.00	\$5,200.00	\$46,800.00
6.	6-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	10	Each	\$4,445.00	\$44,450.00	\$5,614.00	\$56,140.00	\$6,000.00	\$60,000.00
7.	4-Inch Tapping Sleeve and Valve, Valve Box and Collar, Installed, Complete	3	Each	\$3,800.00	\$11,400.00	\$5,119.00	\$15,357.00	\$4,000.00	\$12,000.00
8.	Locate and Reconnect Existing Water Service, Per Detail on Plans, including all Fittings Necessary for Reconnection	94	Each	\$725.00	\$68,150.00	\$750.00	\$70,500.00	\$1,200.00	\$112,800.00
9.	3/4-Inch Corporation Stop and Saddle for 6-Inch PVC Pipe, Complete	24	Each	\$350.00	\$8,400.00	\$313.00	\$7,512.00	\$1,200.00	\$28,800.00
10.	3/4-Inch Corporation Stop and Saddle for 4-Inch PVC Pipe, Complete	70	Each	\$300.00	\$21,000.00	\$291.00	\$20,370.00	\$1,200.00	\$84,000.00
11.	3/4-Inch Polyethylene Service Tubing, As Necessary to Reconnect Services	470	L.F.	\$74.00	\$34,780.00	\$15.00	\$7,050.00	\$60.00	\$28,200.00
12.	Cut and Plug Existing Watermain, Where Watermain is to be abandoned, Per Detail on Plans, All Sizes, Complete	1	Each	\$2,400.00	\$2,400.00	\$3,500.00	\$3,500.00	\$4,000.00	\$4,000.00
13.	Tie in to Existing 4-Inch Water Line, Including all Necessary Fittings, Complete	3	Each	\$6,450.00	\$19,350.00	\$4,500.00	\$13,500.00	\$4,000.00	\$12,000.00
14.	Tie in to Existing 6-Inch Water Line, Including all Necessary Fittings, Complete	1	Each	\$6,550.00	\$6,550.00	\$4,500.00	\$4,500.00	\$4,000.00	\$4,000.00
15.	Bituminous Surface Replacement, Match Existing Thickness, Trench Width, on Streets, Drives, and Roads, Including Saw-Cutting and Tack Oil, Complete	2,272	L.F.	\$18.00	\$40,896.00	\$50.00	\$113,600.00	\$55.00	\$124,960.00
16.	Trench-Width Concrete Drive Replacement, Match Existing Finish And Thickness (4-Inch Minimum), Including Saw-Cutting, Complete	24	L.F.	\$190.00	\$4,560.00	\$50.00	\$1,200.00	\$26.00	\$624.00
17.	Trench-Width Gravel Drive Repair, Top 6-Inch Surface, Complete, In Place	830	L.F.	\$23.00	\$19,090.00	\$3.00	\$2,490.00	\$26.00	\$21,580.00
18.	Crushed Stone Full Trench Backfill Under Pavements and Drives, Complete, In Place	3,126	L.F.	\$17.00	\$53,142.00	\$10.00	\$31,260.00	\$26.00	\$81,276.00
19.	Search And Extra Depth Trench Excavation, Only on Order of the Engineer.	5	C.Y.	\$28.00	\$140.00	\$50.00	\$250.00	\$45.00	\$225.00
20.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$40.00	\$400.00	\$45.00	\$450.00
21.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$55.00	\$550.00	\$35.00	\$350.00	\$40.00	\$400.00
SUBTOTAL-DIVISION H					\$1,027,855.00		\$1,560,183.00		\$1,447,912.00

				Youngblood Excavating and Contracting LLC 111 Pioneer Industrial Drive Mayfield, Kentucky 42066		Twin States Utilities and Excavation Inc. 9440 Old Glasgow Road Mount Hermon, Kentucky 42157		Norris Brothers Excavating LLC 22 Northside Lane Crossville, Tennessee 38571	
Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
SUMMARY									
	DIVISION A-WATER LINES				* \$1,200,738.00		\$1,167,756.00		\$1,063,811.00
	DIVISION B-WATER LINES				\$1,033,607.00		\$1,364,807.00		\$1,333,908.00
	DIVISION C-WATER LINES				\$748,715.00		\$1,076,242.00		\$1,344,277.00
	DIVISION D-WATER LINES				\$1,419,426.00		\$1,421,833.00		\$1,274,999.00
	DIVISION E-WATER LINES				\$686,695.00		\$988,486.00		\$6,055,775.00
	DIVISION F-WATER LINES				\$847,125.00		\$1,170,929.00		\$1,141,126.00
	DIVISION G-WATER LINES				* \$815,539.00		\$1,168,212.00	*	\$1,095,115.00
	DIVISION H-WATER LINES				\$1,027,855.00		\$1,560,183.00		\$1,447,912.00
	TOTAL BID CONTRACT 586-24-01				* \$7,779,700.00		\$9,918,448.00	*	\$14,756,923.00
	* Corrected math error								
	** As written by Contractor								
	DETERMINATION OF LOW BID								
	In the comparison of the bids, if there is no acceptable bid within available Project funds, divisions will be deleted in their entirety, beginning with Division H and continuing in reverse alphabetical order until the bid is within project funds. All bids will be recalculated with each deduction and each bidder should be aware that the apparent low bidder may change following each deduction. After determination of successful bidder based on this comparative process and on the responsiveness, responsibilities, and other factors set forth in these instructions, the award may be made to said successful bidder on its base bid, minus any deductions to the base bid price.								
	See Specifications Section C-200, Article 19, for additional information.								

Exhibit 13
Resolution Awarding
Contract

RESOLUTION NO. 2024-07-02**RESOLUTION OF BARKLEY LAKE WATER DISTRICT
ACCEPTING LOWEST AND BEST BID AND AWARDING
CONTRACT FOR THE LAKESIDE WATERLINE
REPLACEMENT PROJECT**

WHEREAS, Barkley Lake Water District (the “District”) caused to be published in the June 13, 2024 editions of the *Kentucky New Era* and the *Cadiz Record* an advertisement for bids for the Lakeside Waterline Replacement Project (the “Contract” or “Project”) in accordance with the provisions of KRS Chapter 424;

WHEREAS, three (3) firms submitted bids on the Contract in accordance with the terms of the advertisements and the Bid Specifications;

WHEREAS, Youngblood Excavating and Contracting, LLC (“Youngblood”) submitted the lowest of the three (3) bids with a bid of \$7,779,700.00, to construct the entire Project, and specifically submitted a bid of \$5,089,181.00 to construct Divisions A through E and a bid of \$847,125.00 to construct Division F;

WHEREAS, all bids exceeded the \$3,361,190.00 announced as funds available for the Project;

WHEREAS, the Kentucky Infrastructure Authority (“KIA”) has now approved an award increase of \$686,695.00 to KIA Grant 22CWW357;

WHEREAS, Bell Engineering (“Bell”) has recommended that the District award the Contract to construct Divisions A through E of the Lakeside Waterline Replacement Project to Youngblood and has recommended that Youngblood also be awarded the Contract to construct Division F in the amount of \$847,125.00, contingent upon the availability of funds.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COMMISSIONERS OF BARKLEY LAKE WATER DISTRICT AS FOLLOWS:

Section 1. The facts, recitals, and statements contained in the foregoing preamble of this Resolution are true and correct and are hereby affirmed and incorporated as a part of this Resolution.

Section 2. The Board of Commissioners hereby accepts the recommendations of Bell.

Section 3. The Board of Commissioners hereby declares the bid of Youngblood in the amount of \$7,779,700.00 to construct the entire Project, and specifically in the amount of \$5,089,181.00 to construct Divisions A through E and \$847,125.00 to construct Division F to be the lowest and best bid.

Section 4. Youngblood is awarded the Contract for Divisions A through E of the Project in the amount of \$5,089,181.00, contingent upon the Kentucky Public Service Commission ("PSC") granting a Certificate of Public Convenience and Necessity to construct Divisions A through E of the Project and approving the financing as proposed by the District.

Section 5. Youngblood is awarded the Contract for Division F of the Project in the amount of \$847,125.00, contingent upon funds becoming available, the PSC granting a Certificate of Public Convenience and Necessity to construct Division F of the Project, and the PSC approving the financing as proposed by the District, if applicable.

Section 6. The Chairman is authorized and directed as follows: (a) to execute the Notice of Award; (b) to execute the Agreement; (c) to execute the Notice to Proceed; and (d) to take any and all other actions reasonably necessary to implement the award of the Contract to Youngblood, including the execution of any and all other documents necessary for such purpose.

Section 7. This Resolution shall take effect upon its adoption.

Adopted by the Board of Commissioners of Barkley Lake Water District at a meeting held on July 30, 2024, signed by the Chairman, and attested by the Secretary.

BARKLEY LAKE WATER DISTRICT

By: 
Scott Bridges, Chairman

ATTEST:


William Lawrence, Jr., Secretary

CERTIFICATION

The undersigned Secretary of Barkley Lake Water District (the “District”) does hereby certify that the foregoing is a true copy of a Resolution duly adopted by the District’s Board of Commissioners at a meeting properly held on July 30, 2024, signed by the Chairman of the Board of Commissioners, attested by the Secretary of the Board of Commissioners, and now in full force and effect.

WITNESS my hand this 30th day of July 2024.


William Lawrence, Jr., Secretary

Exhibit 14
Summary of
Costs

SRF Project Cost Summary

Exhibit 14

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	

Exhibit 15
Amortization
Schedule

Amortization Schedule

Principal: \$2,677,246.00 Interest Rate: 2.25% Payment Interval: Semi-Annually # of Payments: 40 Payment: \$83,485.87					
Schedule of Payments					
Please allow for slight rounding differences.					
Pmt #	Date	Payment	Principal	Interest	Balance
1	Jun 1, 2025	\$83,485.87	\$53,366.85	\$30,119.02	\$2,623,879.15
2	Dec 1, 2025	\$83,485.87	\$53,967.23	\$29,518.64	\$2,569,911.92
	Year 1	\$166,971.74	\$107,334.08	\$59,637.66	\$2,569,911.92
3	Jun 1, 2026	\$83,485.87	\$54,574.36	\$28,911.51	\$2,515,337.56
4	Dec 1, 2026	\$83,485.87	\$55,188.32	\$28,297.55	\$2,460,149.24
	Year 2	\$166,971.74	\$109,762.68	\$57,209.06	\$2,460,149.24
5	Jun 1, 2027	\$83,485.87	\$55,809.19	\$27,676.68	\$2,404,340.05
6	Dec 1, 2027	\$83,485.87	\$56,437.04	\$27,048.83	\$2,347,903.01
	Year 3	\$166,971.74	\$112,246.23	\$54,725.51	\$2,347,903.01
7	Jun 1, 2028	\$83,485.87	\$57,071.96	\$26,413.91	\$2,290,831.05
8	Dec 1, 2028	\$83,485.87	\$57,714.02	\$25,771.85	\$2,233,117.03
	Year 4	\$166,971.74	\$114,785.98	\$52,185.76	\$2,233,117.03
9	Jun 1, 2029	\$83,485.87	\$58,363.30	\$25,122.57	\$2,174,753.73
10	Dec 1, 2029	\$83,485.87	\$59,019.89	\$24,465.98	\$2,115,733.84
	Year 5	\$166,971.74	\$117,383.19	\$49,588.55	\$2,115,733.84
11	Jun 1, 2030	\$83,485.87	\$59,683.86	\$23,802.01	\$2,056,049.98
12	Dec 1, 2030	\$83,485.87	\$60,355.31	\$23,130.56	\$1,995,694.67
	Year 6	\$166,971.74	\$120,039.17	\$46,932.57	\$1,995,694.67
13	Jun 1, 2031	\$83,485.87	\$61,034.30	\$22,451.57	\$1,934,660.37
14	Dec 1, 2031	\$83,485.87	\$61,720.94	\$21,764.93	\$1,872,939.43
	Year 7	\$166,971.74	\$122,755.24	\$44,216.50	\$1,872,939.43
15	Jun 1, 2032	\$83,485.87	\$62,415.30	\$21,070.57	\$1,810,524.13
16	Dec 1, 2032	\$83,485.87	\$63,117.47	\$20,368.40	\$1,747,406.66
	Year 8	\$166,971.74	\$125,532.77	\$41,438.97	\$1,747,406.66
17	Jun 1, 2033	\$83,485.87	\$63,827.55	\$19,658.32	\$1,683,579.11
18	Dec 1, 2033	\$83,485.87	\$64,545.61	\$18,940.26	\$1,619,033.50
	Year 9	\$166,971.74	\$128,373.16	\$38,598.58	\$1,619,033.50
19	Jun 1, 2034	\$83,485.87	\$65,271.74	\$18,214.13	\$1,553,761.76
20	Dec 1, 2034	\$83,485.87	\$66,006.05	\$17,479.82	\$1,487,755.71
	Year 10	\$166,971.74	\$131,277.79	\$35,693.95	\$1,487,755.71
21	Jun 1, 2035	\$83,485.87	\$66,748.62	\$16,737.25	\$1,421,007.09

22	Dec 1, 2035	\$83,485.87	\$67,499.54	\$15,986.33	\$1,353,507.55
	Year 11	\$166,971.74	\$134,248.16	\$32,723.58	\$1,353,507.55
23	Jun 1, 2036	\$83,485.87	\$68,258.91	\$15,226.96	\$1,285,248.64
24	Dec 1, 2036	\$83,485.87	\$69,026.82	\$14,459.05	\$1,216,221.82
	Year 12	\$166,971.74	\$137,285.73	\$29,686.01	\$1,216,221.82
25	Jun 1, 2037	\$83,485.87	\$69,803.37	\$13,682.50	\$1,146,418.45
26	Dec 1, 2037	\$83,485.87	\$70,588.66	\$12,897.21	\$1,075,829.79
	Year 13	\$166,971.74	\$140,392.03	\$26,579.71	\$1,075,829.79
27	Jun 1, 2038	\$83,485.87	\$71,382.78	\$12,103.09	\$1,004,447.01
28	Dec 1, 2038	\$83,485.87	\$72,185.84	\$11,300.03	\$932,261.17
	Year 14	\$166,971.74	\$143,568.62	\$23,403.12	\$932,261.17
29	Jun 1, 2039	\$83,485.87	\$72,997.93	\$10,487.94	\$859,263.24
30	Dec 1, 2039	\$83,485.87	\$73,819.16	\$9,666.71	\$785,444.08
	Year 15	\$166,971.74	\$146,817.09	\$20,154.65	\$785,444.08
31	Jun 1, 2040	\$83,485.87	\$74,649.62	\$8,836.25	\$710,794.46
32	Dec 1, 2040	\$83,485.87	\$75,489.43	\$7,996.44	\$635,305.03
	Year 16	\$166,971.74	\$150,139.05	\$16,832.69	\$635,305.03
33	Jun 1, 2041	\$83,485.87	\$76,338.69	\$7,147.18	\$558,966.34
34	Dec 1, 2041	\$83,485.87	\$77,197.50	\$6,288.37	\$481,768.84
	Year 17	\$166,971.74	\$153,536.19	\$13,435.55	\$481,768.84
35	Jun 1, 2042	\$83,485.87	\$78,065.97	\$5,419.90	\$403,702.87
36	Dec 1, 2042	\$83,485.87	\$78,944.21	\$4,541.66	\$324,758.66
	Year 18	\$166,971.74	\$157,010.18	\$9,961.56	\$324,758.66
37	Jun 1, 2043	\$83,485.87	\$79,832.34	\$3,653.53	\$244,926.32
38	Dec 1, 2043	\$83,485.87	\$80,730.45	\$2,755.42	\$164,195.87
	Year 19	\$166,971.74	\$160,562.79	\$6,408.95	\$164,195.87
39	Jun 1, 2044	\$83,485.87	\$81,638.67	\$1,847.20	\$82,557.20
40	Dec 1, 2044	\$83,485.97	\$82,557.20	\$928.77	\$0.00
	Year 20	\$166,971.84	\$164,195.87	\$2,775.97	\$0.00
Grand Total			\$2,677,246.00	\$662,188.90	

Close Window

IV. KIA DEBT SERVICE

Construction Loan	\$ 3,678,453
Less: Principal Forgiveness	<u>1,001,207</u>
Amortized Loan Amount	\$ 2,677,246
Interest Rate	2.25%
Loan Term (Years)	<u>20</u>
Estimated Annual Debt Service	\$ 166,972
Administrative Fee (0.25%)	<u>6,693</u>
Total Estimated Annual Debt Service	\$ 173,665

V. PROJECT SCHEDULE

Bid Opening	September 2023
Construction Start	October 2023
Construction Stop	April 2024

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE**A) Customers**

<u>Customers</u>	<u>Current</u>
Residential	5,669
Commercial/Industrial	91
Wholesale	<u>3</u>
Total	5,763

B) Rates

	<u>Current</u>	<u>Prior</u>
Date of Last Increase	09/12/22	09/02/20
Minimum (First 2,000 gallons)	\$24.94	\$21.78
Next 98,000 gallons (per 1,000)	<u>8.40</u>	<u>7.34</u>
Cost for 4,000 gallons	41.74	36.46
Increase %	14.5%	
Affordability Index (Rate/MHI)	0.9%	0.8%

Wholesale	<u>Current</u>	<u>Prior</u>
Date of Last Increase	09/12/22	09/02/20
Per 1,000 gallons	\$2.81	\$2.45
Increase %	14.7%	

Note: The amounts shown above do not include the KIA administrative fee of 0.25% which is approximately \$6,693 per year.

Exhibit 16
Conditional
Commitment Letter

**KENTUCKY INFRASTRUCTURE AUTHORITY**

Andy Beshear
Governor

100 Airport Road
Frankfort, Kentucky 40601
(502) 573-0260
kia.ky.gov

Sandy Williams
Executive Director

October 5, 2023

Scott Bridges, Chairman
Barkley Lake Water District
PO Box 308
Cadiz, KY 42211

**KENTUCKY INFRASTRUCTURE AUTHORITY
FEDERALLY ASSISTED DRINKING WATER REVOLVING LOAN FUND
CONDITIONAL COMMITMENT LETTER (F23-002)**

Dear Chairman Bridges:

The Kentucky Infrastructure Authority ("the Authority") commends your efforts to improve public service facilities in your community. On July 6, 2023, the Authority approved your loan for the BLWD Lakeside Waterline Replacement project subject to the conditions stated in Attachment A to this letter. The total cost of the project shall not exceed \$4,055,104, without prior authorization of the Authority, of which the Authority loan shall provide \$3,678,453 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 Barkley Lake 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 5, 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.

TEAM
KENTUCKY™

An Equal Opportunity Employer M/F/D

Chairman Bridges
October 5, 2023
Page 2

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: Kyle Cunningham, PEADD
Bell Engineering, Bob Pickerill

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

Barkley Lake Water District
F23-002

The Assistance Agreement and this commitment shall be subject, but not limited to, the following terms:

1. The Authority project loan shall not exceed \$3,678,453 without prior authorization.
2. Principal forgiveness of 27% of the assistance amount, not to exceed \$1,001,207 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 0.25% 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

Barkley Lake Water District
F23-002

EXECUTIVE SUMMARY KENTUCKY INFRASTRUCTURE AUTHORITY FUND F, FEDERALLY ASSISTED DRINKING WATER REVOLVING LOAN FUND		Reviewer	John Brady	
		Date	July 6, 2023	
		KIA Loan Number	F23-002	
		WRIS Number	WX21221017	
BORROWER	BARKLEY LAKE WATER DISTRICT TRIGG COUNTY			
BRIEF DESCRIPTION				
The Barkley Lake Water District is requesting a Fund F loan in the amount of \$3,678,453 for the Lakeside Waterline Replacement project. Approximately 70,000 linear feet of 3", 4", and 6" AC waterline in the Lakeside area will be replaced with PVC. The AC lines were installed when the water system was created in 1965 and have continued to deteriorate over the years. The project will address water loss by eliminating leaks and lower operation and maintenance costs.				
PROJECT FINANCING		PROJECT BUDGET		
Fund F Loan	\$3,678,453	Administrative Expenses	\$50,000	
CWP Grant - 21CWW205	376,651	Planning	10,000	
		Eng - Design / Const	194,203	
		Eng - Insp	119,680	
		Eng - Other	21,578	
		Construction	3,361,190	
		Contingency	298,453	
TOTAL	<u>\$4,055,104</u>	TOTAL	<u>\$4,055,104</u>	
REPAYMENT	Rate	2.25%	Est. Annual Payment \$173,665	
	Term	20 Years	1st Payment	6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Bell Engineering		
	Bond Counsel	Rubin & Hays		
PROJECT SCHEDULE	Bid Opening	Sep-23		
	Construction Start	Oct-23		
	Construction Stop	Apr-24		
DEBT PER CUSTOMER	Existing	\$1,594		
	Proposed	\$1,877		
OTHER DEBT	See Attached			
RESIDENTIAL RATES	Current	<u>Users</u> 5,763	<u>Avg. Bill</u> \$41.74	(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	780,989	665,079	115,910	1.2
Audited 2020	784,381	1,604,688	(820,307)	0.5
Audited 2021	936,205	350,835	585,370	2.7
Projected 2022	898,949	605,716	293,233	1.5
Projected 2023	1,264,496	623,527	640,969	2.0
Projected 2024	1,216,535	792,377	424,158	1.5
Projected 2025	1,176,999	798,368	378,631	1.5
Projected 2026	1,136,672	792,981	343,691	1.4

Reviewer: John Brady
 Date: July 6, 2023
 Loan Number: F23-002

**KENTUCKY INFRASTRUCTURE AUTHORITY
 DRINKING WATER STATE REVOLVING FUND (FUND F)
 BARKLEY LAKE WATER DISTRICT, TRIGG COUNTY
 PROJECT REVIEW
 WX21221017**

I. PROJECT DESCRIPTION

The Barkley Lake Water District is requesting a Fund F loan in the amount of \$3,678,453 for the Lakeside Waterline Replacement project. Approximately 70,000 linear feet of 3", 4", and 6" AC waterline in the Lakeside area will be replaced with PVC. The AC lines were installed when the water system was created in 1965 and have continued to deteriorate over the years. The project will address water loss by eliminating leaks and lower operation and maintenance costs.

The Water District currently serves 5,669 residential customers and 91 commercial and industrial customers. They provide wholesale service to Christian County Water District, Cadiz Water and Sewer Commission, and North Stewart Utility District.

II. PROJECT BUDGET

	<u>Total</u>
Administrative Expenses	\$ 50,000
Planning	10,000
Engineering Fees - Design	151,047
Engineering Fees - Construction	43,156
Engineering Fees - Inspection	119,680
Engineering Fees - Other	21,578
Construction	3,361,190
Contingency	298,453
Total	\$ 4,055,104

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
Fund F Loan	\$ 3,678,453	91%
CWP	376,651	9%
Total	\$ 4,055,104	100%

IV. KIA DEBT SERVICE

Construction Loan	\$ 3,678,453
Less: Principal Forgiveness	1,001,207
Amortized Loan Amount	<u>\$ 2,677,246</u>
Interest Rate	2.25%
Loan Term (Years)	<u>20</u>
Estimated Annual Debt Service	\$ 166,972
Administrative Fee (0.25%)	<u>6,693</u>
Total Estimated Annual Debt Service	\$ 173,665

V. PROJECT SCHEDULE

Bid Opening	September 2023
Construction Start	October 2023
Construction Stop	April 2024

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE**A) Customers**

Customers	Current
Residential	5,669
Commercial/Industrial	91
Wholesale	<u>3</u>
Total	5,763

B) Rates

	Current	Prior
Date of Last Increase	<u>09/12/22</u>	09/02/20
Minimum (First 2,000 gallons)	\$24.94	\$21.78
Next 98,000 gallons (per 1,000)	8.40	7.34
Cost for 4,000 gallons	41.74	36.46
Increase %	14.5%	
Affordability Index (Rate/MHI)	0.9%	0.8%

Wholesale	Current	Prior
Date of Last Increase	<u>09/12/22</u>	09/02/20
Per 1,000 gallons	\$2.81	\$2.45
Increase %	14.7%	

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2016-2020, the Utility's service area population was with a Median Household Income (MHI) of \$53,285. 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 \$1,001,207 will be deducted from the loan balance.

IX. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the years ended December 31, 2019 through December 31 31, 2021. The non-cash impacts of GASB 68 – Accounting and Financial Reporting for Pensions and GASB 75 – Accounting and Financial Reporting for Other Postemployment Benefit have been removed from the operating expenses. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented.

HISTORY

Total water revenues increased 11.6% from \$2.50 million in 2019 to \$2.79 million in 2021 due to a rate increase implemented in 2020. Operating expenses increased 6.6% from \$1.75 million to \$1.86 million during the same period. The debt coverage ratio was 1.2, 0.5, and 2.7 in 2019, 2020, and 2021.

The balance sheet reflects a current ratio of 3.1, a debt-to-equity ratio of 2.4, 53.4 days of sales in accounts receivable, and 6.3 months of operating expenses in unrestricted cash.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Water revenues will increase 14.5% in 2023 due to an existing rate increase.
- 2) Operating expenses will increase 2% annually due to inflation.
- 3) Debt service coverage is 1.5 in 2024 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 Water 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 \$3,678,453 loan and must receive a Certificate of Public Convenience and Necessity, pursuant to KRS 278.020.

REPLACEMENT RESERVE

The replacement reserve will be 5% (\$9,200 total) of the final amount borrowed (prior to principal forgiveness) to be funded annually (\$184,000 yearly) each December 1 for 20 years and maintained for the life of the loan.

X. DEBT OBLIGATIONS

	<u>Outstanding</u>	<u>Maturity</u>
2010B Revenue Bonds	\$ 1,562,485	2049
2012E Revenue Bonds	915,000	2033
2014 Revenue Bonds	758,500	2055
2020A Revenue Bonds	840,890	2060
2020B Revenue Bonds	37,100	2059
2020I Revenue Bonds	<u>5,070,000</u>	2050
Total	\$ 9,183,975	

XI. CONTACTS

Legal Applicant	
Entity Name	Barkley Lake Water District
Authorized Official	Scott Bridges (Chairman)
County	Trigg
Email	blwd@att.net
Phone	(270) 522-8425
Address	PO Box 308 Cadiz, KY 42211

Applicant Contact	
Name	John Herring
Organization	Barkley Lake Water District
Email	blwd@att.net
Phone	(270) 924-5616
Address	PO Box 308 Cadiz, KY 42211

Project Administrator

Name	Kyle Cunningham
Organization	PEADD
Email	kyle.cunningham@ky.gov
Phone	(270) 886-9484
Address	300 Hammond Dr Hopkinsville, KY 42240

Consulting Engineer

PE Name	Bob Pickerill
Firm Name	Bell Engineering
Email	bpickerill@hkbell.com
Phone	270-886-5466
Address	PO Box 661 Hopkinsville, KY 42241

XII. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions.

BARKLEY LAKE WATER DISTRICT
FINANCIAL SUMMARY (DECEMBER YEAR END)

	Audited	Audited	Audited	Projected	Projected	Projected	Projected	Projected
	2019	2020	2021	2022	2023	2024	2025	2026
Balance Sheet								
Assets								
Current Assets	2,423,663	1,559,507	1,681,078	1,824,203	2,075,493	2,202,741	2,316,330	2,419,437
Other Assets	16,711,990	16,279,262	16,720,405	16,313,714	16,150,438	19,789,121	19,340,831	18,868,082
Total	19,135,653	17,838,769	18,401,483	18,137,917	18,225,932	21,991,862	21,657,161	21,287,520
Liabilities & Equity								
Current Liabilities	495,727	308,370	544,943	578,486	590,986	748,848	762,348	775,948
Long Term Liabilities	12,665,930	11,876,911	12,365,879	12,010,879	11,644,879	13,799,763	13,265,400	12,719,038
Total Liabilities	13,161,657	12,185,281	12,910,822	12,589,365	12,235,865	14,548,611	14,027,749	13,494,986
Net Assets	5,973,996	5,653,488	5,490,661	5,548,552	5,990,067	7,443,251	7,629,412	7,792,533
Cash Flow								
Revenues	2,503,732	2,541,260	2,794,878	2,794,878	3,198,426	3,198,426	3,198,426	3,198,426
Operating Expenses	1,746,900	1,773,328	1,862,780	1,900,036	1,938,037	1,985,998	2,025,534	2,065,861
Other Income	24,157	16,449	4,107	4,107	4,107	4,107	4,107	4,107
Cash Flow Before Debt Service	780,989	784,381	936,205	898,949	1,264,496	1,216,535	1,176,999	1,136,672
Debt Service								
Existing Debt Service	665,079	1,604,688	350,835	605,716	623,527	618,712	624,703	619,316
Proposed KIA Loan	0	0	0	0	0	173,665	173,665	173,665
Total Debt Service	665,079	1,604,688	350,835	605,716	623,527	792,377	798,368	792,981
Cash Flow After Debt Service	115,910	(820,307)	585,370	293,233	640,969	424,158	378,631	343,691
Ratios								
Current Ratio	4.9	5.1	3.1	3.2	3.5	2.9	3.0	3.1
Debt to Equity	2.2	2.2	2.4	2.3	2.0	2.0	1.8	1.7
Days Sales in Accounts Receivable	54.1	57.7	53.4	53.4	53.4	53.4	53.4	53.4
Months Operating Expenses in Unrestricted Cash	12.5	5.0	6.3	6.7	7.8	8.4	8.9	9.3
Debt Coverage Ratio	1.2	0.5	2.7	1.5	2.0	1.5	1.5	1.4

ATTACHMENT C

Forms

Barkley Lake Water District
F23-002

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:	Barkley Lake Water District
Unique Entity ID (generated by SAM.gov)*:	051786242
KIA Loan Number:	F23-002
Street Address	1420 Canton Road
City, State and Zip (Zip must include 4 digit extension)	Cadiz, Ky 42211-0241
Federal Congressional District(s) of Borrower Utility Service Area:	District One

*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	Eastern Shore of Lake Barkley
City, State and Zip (Zip must include 4 digit extension)	Cadiz KY 42211-8077
Federal Congressional District(s) of Project Location	District One

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?	No
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?	No
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?	No

Unique Entity ID Registration Information: <https://sam.gov>

KIA Loan # F23-002

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 Bank of Cadiz BRANCH Main
 CITY Cadiz STATE KY ZIP CODE 42211
 BANK TRANSIT/ABA NO. [REDACTED] ACCOUNT NO. [REDACTED]

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: Barkley Lake Water DistrictADDRESS PO Box 308 1420 Canton Rd, Cadiz, KY 42211TAX IDENTIFICATION NUMBER: [REDACTED]By  Dated 10/23/23

Authorized Signer

Send to: U.S. Bank via Email

KentuckyInfrastructureAuth@usbank.com

**AUTHORIZATION FOR ELECTRONIC DEPOSIT
OF BORROWER PAYMENT
KENTUCKY INFRASTRUCTURE AUTHORITY
KIA Loan # F23-002**

Borrower Information:

Name: Barkley Lake Water District

Address: PO Box 308 1420 Canton Rd

City: Cadiz State: KY Zip: 42211

Federal I.D. #: [REDACTED] Telephone: 270-924-5616

Contact Name: John Herring

Email: blwd@att.net

Financial Institution Information:

Bank Name: Bank of Cadiz

Branch: Main Telephone: 270-522-6066


City: Cadiz State: KY Zip: 42211

Transit / ABA No: [REDACTED]

Account Name: Sinking Fund Account

Account Number: [REDACTED]

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: 10/23/23

Name Printed: John Herring Job Title: General Manager

Send to: U.S. Bank via Email

KentuckyInfrastructureAuth@usbank.com

Exhibit 17
KIA Board Meeting
Minutes

KENTUCKY INFRASTRUCTURE AUTHORITY
Minutes of the Full Board

Meeting Date/Location: July 6, 2023 – 1:00 p.m.
Kentucky Infrastructure Authority
Via ZOOM Teleconference

Members Present:

Mr. Robert A. Amato, representing Kentucky Municipal Utilities Association
Mr. Ronald Parritt, proxy for Ms. Linda Bridwell, Executive Director, Public Service Commission
Ms. Geri Grigsby, proxy for Secretary Holly Johnson, Finance and Administration Cabinet
Mr. Carey Johnson, proxy for Secretary Rebecca Goodman, Energy and Environment Cabinet
Mr. Andy Luttner, proxy for Secretary Jeff Noel, Cabinet for Economic Development
Judge Mark McKenzie, representing Kentucky Association of Counties
Ms. Shelley Porter, representing For Profit Water Companies
Mr. Russell Rose, representing Kentucky Rural Water Association
Mayor Les Stapleton, representing Kentucky League of Cities
Mr. Shaun Youravich, representing Kentucky Section of the American Water Works Association

Members Absent:

Chairman Dennis Keene, Commissioner Department of Local Government

DLG Staff:

Mr. Brandon Gibson, Staff Attorney
Mr. Matt Stephens, General Counsel
Ms. Kim Wooldridge, Executive Assistant to the Commissioner

KIA Staff:

Ms. Sandy Williams, Executive Director
Mr. Milward Dedman, Deputy Executive Director
Ms. Julie Bickers, Regional Compliance Coordinator
Mr. John Brady, Financial Analyst
Mr. Jim Carpenter, Fiscal Officer & KIA Treasurer
Ms. Carmen Ignat, Financial Analyst
Mr. Kelly Cunnagin, Executive Staff Advisor
Ms. Debbie Landrum, Regional Compliance Coordinator
Ms. Natalie Lile, Asst. General Counsel
Ms. Meg Link, Administrative Specialist III, and KIA Secretary
Ms. Sandy Sanders, Federal Program Specialist
Mr. Don Schierer, WRIS Resource Management Analyst
Mr. Thomas Schubert, GIS Specialist

Guests:

Mr. Jory Becker, Division of Water
Ms. Bethany Couch, Office of Financial Management
Mr. Kyle Cunningham, Pennyryle Area Development District
Ms. Liz Dienest, Strand Associates
Mr. Brad Good, Louisville MSD
Ms. Joceyln Gross, Gateway Area Development District
Ms. Alicia Jacobs, Division of Water
Mr. Justin Kuhbender, Strand Associates,

Ms. Stephanie Loughlin, Louisville MSD
 Ms. Holly McGrath-Rosas, Gateway Area Development District
 Ms. Cheryl Moore, City of South Shore
 Ms. Lisa Napier, Kentucky River Area Development District
 Mr. Paul Nesbitt, Nesbitt Engineering
 Ms. Melissa Perry, Office of Financial Management
 Ms. Laura Thomas, City of Jackson
 Mr. Ashley Willoughby, Lincoln Trail Area Development District

I. PROCEEDINGS

Vice Chairman Robert Amato called the meeting of the Kentucky Infrastructure Authority (KIA) Board to order. He noted that the media advisory was properly distributed. He confirmed a quorum was present.

He also told the group that he had attended a ceremony in Nicholasville earlier in the day for the renaming of the current Main Street-US 27 Business which is now designated the Tom Buford Memorial Highway. It was a very nice tribute to the late State Senator.

A. BUSINESS (Board Action Required)

1. APPROVAL OF MINUTES

For: KIA Regular Board Meeting of May 4, 2023

Mayor Les Stapleton moved to approve the minutes of the May 4, 2023, regular board meeting. Mr. Russ Rose seconded, and the motion carried unanimously.

B. NEW PROJECTS/ACTION ITEMS (Board Action Required)

Mr. Amato announced that Director Williams would discuss the next four agenda items relating to the Interest Rates and Administrative fees for 2024 for SRF Funds A and F and the state funds Fund B and C. KIA staff met with Morgan-Stanley to discuss the capital markets and determine the interest rates for the upcoming year, beginning August 1, 2023. Based on current market data, staff recommends leaving interest rates unchanged. Staff will re-evaluate in December considering the volatility of the market currently.

KIA also reviewed the administrative fees for three of the four Funds and recommends an increase in the administrative fees of 0.05% for Funds A, F and C. With the additional federal funding, we will need to hire more staff to complete the work and the administrative fees will assist in covering the additional staff. Our administrative fees are based on the outstanding loan balances and some of the new funds will not have balances because we must provide 100% principal forgiveness. KIA would not receive any administrative fees on those loans.

1. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY ESTABLISHING FUND A INTEREST RATES AND ADMINISTRATIVE FEES FOR THE PERIOD AUGUST 1, 2023 THROUGH JUNE 30, 2024

The interest rate for all Kentucky Infrastructure Authority Fund A loans approved by the Authority during the period August 1, 2023 through June 30, 2024 shall be as follows:

One standard interest rate and two nonstandard interest rates will be offered to borrowers. The standard rate shall be 2.25% and the nonstandard rates shall be 1.25% and 0.50% based on the income parameters defined in the 2024 Clean Water State Revolving Fund Intended Use Plan.

The Kentucky Infrastructure Authority may on a case-by-case basis direct staff to establish an interest rate on the Fund A loan that would in effect create an effective interest rate equal to the appropriate standard rate or the nonstandard rate for the entire funding provided by the Authority in cases where Fund C, Governmental Agencies Program, funding is provided as supplemental funding to the Fund A loan.

The administrative fee for all Kentucky Infrastructure Authority Fund A loans approved by the Authority during the period August 1, 2023 through June 30, 2024, shall be 0.25%

Mr. Shaun Youravich noted a duplication of wording in the resolution and asked that the error be corrected, prior to the approval. Director Williams said the correction would be made.

Mr. Russ Rose made the motion to approve the Fund A Interest Resolution with the abovementioned correction. Mayor Les Stapleton seconded, and the motion was unanimously approved.

2. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY ESTABLISHING FUND F INTEREST RATES AND ADMINISTRATIVE FEES FOR THE PERIOD AUGUST 1, 2023 THROUGH JUNE 30, 2024

The interest rate for all Kentucky Infrastructure Authority Fund “F” loans approved by the Authority during the period August 1, 2023 through June 30, 2024, shall be as follows:

One standard interest rate and two nonstandard interest rates will be offered to borrowers. The standard rate shall be 2.25% and the nonstandard rates shall be 1.25% and 0.50% based on the income parameters defined in the 2024 Drinking Water State Revolving Fund Intended Use Plan.

The Kentucky Infrastructure Authority may on a case-by-case basis direct staff to establish an interest rate on the Fund F loan that would in effect create an effective interest rate equal to the appropriate standard rate or the nonstandard rate for the entire funding provided by the Authority in cases where Fund C,

Governmental Agencies Program, funding is provided as supplemental funding to the Fund F loan.

The administrative fee for all Kentucky Infrastructure Authority Fund F loans approved by the Authority during the period August 1, 2023 through June 30, 2024, shall be 0.30%

Mr. Shaun Youravich made the motion to approve the Fund F Interest Resolution. Ms. Shelley Porter seconded, and the motion was unanimously approved.

3. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY ESTABLISHING FUND C INTEREST RATES AND ADMINISTRATIVE FEES FOR THE PERIOD AUGUST 1, 2023 THROUGH JUNE 30, 2024

The interest rates for all Kentucky Infrastructure Authority Fund C loans approved by the Authority during the period August 1, 2023 through June 30, 2024, shall be as follows:

<u>TERM</u>	<u>RATE</u>
1 - 5 Years	1.75%
6 - 10 Years	2.25%
11 - 20 Years	2.75%
Broadband Projects	4.25%

Les Stapleton made the motion to approve the Fund C Interest Resolution. Carey Johnson seconded, and the motion was unanimously approved.

4. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY AUTHORIZING ISSUANCE OF A CONDITIONAL COMMITMENT FOR A FEDERALLY ASSISTED CLEAN WATER REVOLVING FUND LOAN (A23-002) FOR AN AMOUNT UP TO \$11,200,000 TO THE LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT, BULLITT COUNTY, KENTUCKY

Mr. Jory Becker, DOW, and Mr. John Brady discussed the Louisville and Jefferson County Metropolitan Sewer District's (MSD) request for a Fund A loan in the amount of \$11,200,000 for the Bullitt Hills and Hillview Wastewater Treatment Plants (WWTP) and Three Pump Stations Elimination project. The Hillview #1, Hillview #2, and Bullitt Hills WWTP's will be eliminated as part of the project. All are over 25 years old and have received Notices of Violation in recent years. Three associated pump stations will be eliminated as well. A new pump station will be constructed in place of a WWTP and flow will be diverted to a treatment plant in Jefferson County. In order to reroute flows from the eliminated WWTP's and pump stations, approximately 3,000 linear feet of collector sewer and 10,000 linear feet of interceptor sewer will be constructed. Building one centralized pump station to direct flow to a WWTP capable of handling the flow will be more reliable and efficient for the system.

The overall project is necessary to improve capacity assurance and overflow abatement needs in this area. It will mitigate Sanitary Sewer Overflows in Bullitt County and is required by the County's Agreed Order.

MSD currently serves 224,374 residential customers, 21,843 commercial customers, and 391 industrial customers. 4,723 customers in Bullitt County are currently being served by MSD.

Mr. Carey Johnson noted he would be abstaining from voting on this and several other projects due to working with the borrowers on the projects in his role at the Division of Water.

Mr. Carey Johnson abstained from voting. Ms. Geri Grigsby made the motion to approve the Fund A loan to Louisville MSD for an amount up to \$11,200,000 with the standard conditions. Mayor Les Stapleton seconded and the motion was approved.

5. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY ESTABLISHING FUND B INTEREST RATES FOR THE PERIOD AUGUST 1, 2023 THROUGH JUNE 30, 2024

The interest rate for all Kentucky Infrastructure Authority Fund B loans approved by the Authority during the period August 1, 2023 through June 30, 2024, shall be as follows:

One standard interest rate and three nonstandard interest rates will be offered to borrowers. The standard rate shall be 2.25%. Two nonstandard rates shall be 1.25% and 0.50% based on the income parameters defined in the 2024 Clean Water and Drinking Water State Revolving Fund Intended Use Plans. The rate for all broadband projects shall be 4.25% (the third nonstandard rate).

The Kentucky Infrastructure Authority may on a case-by-case basis direct staff to establish an interest rate on the Fund B loan that would in effect create an effective interest rate equal to the appropriate standard rate or the nonstandard rate for the entire funding provided by the Authority in cases where Fund C, Governmental Agencies Program, funding is provided as supplemental funding to the Fund B loan.

Mr. Shaun Youravich made the motion to approve the Fund B Interest Resolution. Ms. Shelley Porter seconded, and the motion was unanimously approved.

6. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY AUTHORIZING ISSUANCE OF A CONDITIONAL COMMITMENT FOR A FEDERALLY ASSISTED CLEAN WATER REVOLVING FUND LOAN (A23-024S) FOR AN AMOUNT UP TO \$2,862,000 TO THE CITY OF RICHMOND, MADISON COUNTY, KENTUCKY

Mr. Jory Becker, DOW, and Mr. John Brady, KIA, discussed the City of Richmond's request for a Fund A loan in the amount of \$2,862,000 for the South

Point Force Main and Pump Station Improvements project. Approximately 8,000 linear feet of 16" force main will replace the 8" lines to increase capacity to meet future demand in the area. An associated pump station will be rehabilitated, and new pumps and controls will be installed. This project, combined with others in the region, will expand access to a developing part of town and remove multiple septic tank reliant systems.

The City currently serves 12,068 residential customers and 1,290 commercial and industrial customers. Approximately 250 new residential customers are expected to be added once the project is complete.

Mr. Carey Johnson abstained from the vote. Ms. Geri Grigsby made the motion to approve the Fund A loan for an amount up to \$2,862,000 with the standard conditions. Les Stapleton seconded and the motion was approved.

7. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY AUTHORIZING ISSUANCE OF A CONDITIONAL COMMITMENT FOR A FEDERALLY ASSISTED CLEAN WATER REVOLVING FUND LOAN (A23-025S) FOR AN AMOUNT UP TO \$500,000 TO THE CITY OF JACKSON, BREATHITT COUNTY, KENTUCKY

Mr. Jory Becker, DOW, and Mr. John Brady discussed the City of Jackson's request for a Fund A loan in the amount of \$500,000 for the Sewer Rehabilitation Phase 2 project. Portions of approximately 20,000 linear feet of problematic lines found during an inflow and infiltration study will be rehabbed or replaced in the city's downtown area. The existing sewer system experiences high flows during and after heavy rainfall. The high flows impair the performance of the wastewater treatment plant resulting in frequent KPDES permit violations.

The City currently serves 855 residential customers and 177 commercial customers.

Mr. Carey Johnson abstained from the vote. Mr. Andy Luttner made the motion to approve the Fund A loan to the City of Richmond for an amount up to \$500,000 with the standard conditions. Mayor Les Stapleton seconded and the motion was approved.

8. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY AUTHORIZING ISSUANCE OF A CONDITIONAL COMMITMENT FOR AN INFRASTRUCTURE REVOLVING FUND LOAN (C23-001) FOR AN AMOUNT UP TO \$7,054,602 TO THE CITY OF MOREHEAD F/B/O MOREHEAD UTILITY PLANT BOARD, ROWAN COUNTY, KENTUCKY

Mr. John Brady, KIA discussed the City of Morehead, for the benefit of the Morehead Utility Plant Board's (MUPB), request a Fund C loan in the amount of \$7,054,602 as supplemental funding for the Regional Water Treatment Plant Construction project. The project consists of multiple phases and the bids for each phase have all come in substantially overbudget. A planning and design loan in the amount of \$1,297,000 was approved by the KIA Board in December

2017. Fund F loans totaling \$43,700,800 have been approved by the KIA board since then from March 2019 to February 2022. The Fund C loan will bring total KIA funding for the project to \$52,052,602. A new 12 million gallon per day (MGD) Water Treatment Plant (WTP) will replace the existing plant with a capacity of 8 MGD. The existing WTP was constructed in the 1960's and requires continuous maintenance and costly repairs. The new WTP will include upgraded SCADA, telemetry, and technologies to improve the treatment process. Other work at the WTP will include the construction of a 1.8-million-gallon capacity clear well and 3 lagoons for sludge containment. A new raw water intake will be constructed on Cave Run Lake along with 6,500 linear feet of 24" ductile iron pipe to connect the intake structure to the WTP. Approximately 4,500 linear feet of finished waterline will be installed and extend to a new 1,000,000-gallon ground storage tank.

The MUPB currently serves 3,442 direct customers in Bath, Fleming, and Rowan counties along with 11,977 indirectly served through wholesale water sales.

Mr. Carey Johnson abstained from voting. Ms. Shelley Porter made the motion to approve the Fund C loan for an amount up to \$7,054,602 with the standard conditions. Mr. Shaun Youravich seconded and the motion was approved.

9. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY AUTHORIZING ISSUANCE OF A CONDITIONAL COMMITMENT FOR A FEDERALLY ASSISTED DRINKING WATER REVOLVING FUND LOAN (F23-002) FOR AN AMOUNT UP TO \$3,678,453 TO THE BARKLEY LAKE WATER DISTRICT, TRIGG COUNTY, KENTUCKY

Mr. Jory Becker, DOW, and Mr. John Brady, KIA. discussed the Barkley Lake Water District's request for a Fund F loan in the amount of \$3,678,453 for the Lakeside Waterline Replacement project. Approximately 70,000 linear feet of 3", 4", and 6" AC waterline in the Lakeside area will be replaced with PVC. The AC lines were installed when the water system was created in 1965 and have continued to deteriorate over the years. The project will address water loss by eliminating leaks and lower operation and maintenance costs.

The Water District currently serves 5,669 residential customers and 91 commercial and industrial customers. They provide wholesale service to Christian County Water District, Cadiz Water and Sewer Commission, and North Stewart Utility District.

Mr. Carey Johnson and Mr. Ron Parritt abstained from voting. Ms. Shelley Porter was unable to vote due to technical issues. Mayor Les Stapleton made the motion to approve the Fund F loan for an amount up to \$3,678,453 with the standard conditions. Ms. Geri Grigsby seconded and the motion was approved.

10. A RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY AUTHORIZING ISSUANCE OF A CONDITIONAL COMMITMENT FOR A FEDERALLY ASSISTED DRINKING

WATER REVOLVING FUND LOAN (F23-138E) FOR AN AMOUNT UP TO \$8,590,500 TO THE CITY OF SOUTH SHORE, GREENUP COUNTY, KENTUCKY

Mr. Jory Becker, DOW, and Mr. John Brady, KIA, discussed the City of South Shore's request for a Fund F loan in the amount of \$8,590,500 for the South Shore to Portsmouth Permanent Interconnect project. The City's wells have become contaminated with PFAS and some are experiencing failure. The inability to construct a new treatment plant has created the need to connect with an existing system capable of providing the quantity of potable water to serve the City's entire system. Approximately 13,000 linear feet of 20" water line will be constructed underneath the Ohio River bedrock and connect into Portsmouth, Ohio. Two booster pump stations will be built and various line replacements will be made in order to distribute water throughout the system. With no other viable option to provide quality water to the community, an interconnect to Portsmouth is necessary.

The City currently serves 2,325 residential customers and 176 commercial and industrial customers.

Mr. Carey Johnson abstained from the vote. Mayor Les Stapleton made the motion to approve the Fund F loan for an amount up to \$8,590,500 with the standard conditions. Judge Mark McKenzie seconded and the motion was approved.

11. A RESOLUTION OF THE KENTUCKY INFRASTRUCTURE AUTHORITY AUTHORIZING AND APPROVING THE ISSUANCE OF OBLIGATIONS OF THE KENTUCKY INFRASTRUCTURE AUTHORITY TO REIMBURSE CAPITAL EXPENDITURES MADE BY GOVERNMENTAL AGENCIES PURSUANT TO LOANS MADE BY THE KENTUCKY INFRASTRUCTURE AUTHORITY TO SUCH GOVERNMENTAL AGENCIES

This is a routine resolution allowing KIA to reimburse expenses that are paid out of the Authority's funds with bond proceeds. The projects listed below are covered under this resolution.

BORROWER	FUND	AMOUNT	LOAN TOTAL
Louisville MSD	A23-002	\$11,200,000	\$11,200,000
City of Richmond	A23-024S	\$2,862,000	\$2,862,000
City of Jackson	A23-025S	\$500,000	\$500,000
City of Morehead f/b/o Morehead Utility Plant Board	C23-001	\$7,054,602	\$7,054,602
Barkley Lake Water District	F23-002	\$3,678,453	\$3,678,453
City of South Shore	F23-138E	\$8,590,500	\$8,590,500

Mr. Russ Rose made the motion to approve the Capital Reimbursement Resolution. Mayor Les Stapleton seconded, and the motion carried unanimously.

II. EXECUTIVE DIRECTOR’S REPORT

Director Williams thanked everyone for their participation. She noted that the KIA offices are officially closed for HVAC construction from Monday, July 10 through Monday, August 14th. Staff will be working remotely and is available to attend meetings, but offsite or via teleconference.

KIA will be hosting an EPA 2023 Amended Intended Use Plan (IUP) meeting on Thursday, July 13th at 2:30 via Zoom to update the information on what qualifies as a Disadvantaged Community with additional information on the Median Household Income (MHI) and Affordability Rate Index, for funding for the Lead Service Line Replacement and Emerging Contaminants funding through BIL.

That concluded Director Williams report.

III. ANNOUNCEMENTS/NOTIFICATIONS

Next regularly scheduled KIA board meeting:

Thursday, August 3, 2023, at 1:00 p.m.

There being no further business, Judge Mark McKenzie moved to adjourn. Mayor Les Stapleton seconded, and the motion carried unanimously. The July 6, 2023, meeting of the Board of the Kentucky Infrastructure Authority was adjourned.

Submitted by:

Margaret F. Link
 Kentucky Infrastructure Authority Secretary

July 13, 2023
 Date

Exhibit 18
Request for Extension

From: AT&T YAHOO MAIL- <blwd@att.net>
To: Williams Sandy R (KIA) <sandy.williams@ky.gov>; Bickers, Julie (KIA) <julie.bickers@ky.gov>
Sent: Wednesday, August 21, 2024 at 10:11:06 AM CDT
Subject: Loan Extension F23-002

Sandy,

Barkley Lake Water District would like to request a 6-month extension on the SRF F23-002 loan. We currently have bids in hand and have accepted the low bidder. We are hoping to have our application for approval into the PSC by the end of the month. The problem is that we do not expect to have their approval until October 15 or later which is past the Oct 5th deadline of the loan.

Please accept this email as a request for extension. If you have any questions or concerns, please do not hesitate to contact me.

Thank you for your time and consideration,

John Herring
General Manager
Barkley Lake Water District

Exhibit 19
Grant Assistance
Agreements

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 Barkley Lake 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,

WITNESSETH:

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 21CWW205 in the principal amount of \$376,651 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: _____
Sandy Williams, Executive Director

Date: _____

BARKLEY LAKE 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.

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 Barkley Lake 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,

WITNESSETH:

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 22CWW357 in the principal amount of \$427,065 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.
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- 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.

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- 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.

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- 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: _____
Sandy Williams, Executive Director

Date: _____

BARKLEY LAKE WATER DISTRICT

By: Scott T. Bridges
Authorized Official

Print Name: Scott T. Bridges

**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.



KENTUCKY INFRASTRUCTURE AUTHORITY

Andy Beshear
Governor

100 Airport Road
Frankfort, Kentucky 40601
(502) 573-0260
<https://kia.ky.gov>

Sandy Williams
Executive Director

July 23, 2024

Scott Bridges
Chairman
Barkley Lake Water District
PO Box 308
Cadiz, KY 42211

KENTUCKY INFRASTRUCTURE AUTHORITY CONDITIONAL SUPPLEMENTAL COMMITMENT LETTER

KIA Grant Number 22CWW357
WRIS Project Number WX21221017

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 Barkley Lake Water District (the "Grantee") in the amount of \$686,695 for the BLWD - Lakeside Waterline Replacement project. This brings your total grant award to \$1,113,760. 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 Equal Opportunity Employer M/F/D

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: Amy Frogue, Project Administrator
John Herring, Barkley Lake Water District
Robert Louis Pickerill, Bell Engineering
Amy Frogue, ADD Coordinator
Julie Bickers, 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

Barkley Lake 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 \$1,113,760 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 (WX21221017) 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: BLWD - Lakeside Waterline Replacement

WRIS#: WX21221017

Project Budget: Estimated

As Bid

Revised

enter date

enter date

enter date

Cost Classification		CWP Grant 22CWW35 7	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	

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		

Local Funding Sources	Amount	Date Committed
1		
2		
	Total	

Total Funding -

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: 22CWW357

EXHIBIT 4**RESOLUTION****RESOLUTION OF THE BARKLEY LAKE WATER DISTRICT ACCEPTING THE SUPPLEMENTAL GRANT, APPROVING THE GRANT ASSISTANCE AGREEMENT [or the GRANT SUPPLEMENTAL ASSISTANCE AGREEMENT], AUTHORIZING THE AMENDMENT OF THE BARKLEY LAKE 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 Barkley Lake 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 Barkley Lake 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__.

BARKLEY LAKE 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 Barkley Lake 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,

Exhibit 20
2023 Annual Report

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Title Page

Name of Respondent	Addr Line 1	Addr Line 2	City	State	Zip
Water Districts/Associations					
Annual Report of					
Respondent	Barkley Lake Water District	PO Box 308	Cadiz	KY	42211

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Principal Payment and Interest Information

	Amount	Yes/No	PSC Case No.
Amount of Principal Payment During Calendar Year	\$355,000.00		
Is Principal Current?		Y	
Is Interest Current?		Y	
Has all long-term debt been approved by the Public Service Commission?		Y	

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Services Performed by Independent CPA

	Yes/No	A/C/R	Audit Date
Are your financial statements examined by a Certified Public Accountant?			
Enter Y for Yes or N for No	Y		
If yes, which service is performed?			
Enter an X on each appropriate line			
Audit	Y	A	
Compilation			
Review			
Date of Audit			
Please enclose a copy of the accountant's report with annual report.			

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Additional Requested Information

	Name	Electronic Info
Name of Utility and Web Address	Barkley Lake Water District	blwd.ky.gov
Contact Name and Email Address	Teresa Smith	office@blwdky.gov

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Additional Information Required

Case Num	Date	Explain

Major Water Projects

Provide details about each major water project which is planned but has not yet been submitted for approval to the Public Service commission.

For the limited purpose of this report, a "Major Project" is defined as one which is not in the ordinary course of business, and will increase your current utilityplant by at least 20 percent.

Brief Project Description: (improvement, replacement,building construction, expansion. If expansion, provide the estimated number of new customers):

Projected Costs and Funding Sources/Amounts:

Approval Status: (Application for financial assistance filed, but not approved; or application approved, but have not advertised for construction bids)

Location: (community, area or nearby roads)

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

History-Legal Name (Ref Page: 4)

1. Exact name of utility making this report.

(Use the words "The", "Company" or "Incorporated" only when part of the corporate name.)

Barkley Lake Water District

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

History-Location (Ref Page: 4)

	Name	Address	City	State	Zip	Phone
Give the location, including street and number, and TELEPHONE NUMBER of the principal office in KY.						
principal office in KY	Barkley Lake Water District	1420 Canton Road	Cadiz	KY	42211	(270) 522-8425
Give name, title, address and TELEPHONE NUMBER of the officer						
to whom correspondence concerning this report should be addressed.						
	Scott Bridges, Chairman	PO Box 308	Cadiz	KY	42211	(270) 522-8425
Location where books are located	Barkley Lake Water District	1420 Canton Road	Cadiz	KY	42211	
Name of the Headquartered County	Trigg					

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

History-Date Organized (Ref Page: 4)

		Date
Date of Organization		7/21/1965

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

History-Laws of Organization (Ref Page: 4)

List

If a consolidated or merger company, name all contingent and all merged companies. Give reference to charters or general laws governing each, and all amendments of same

Date and Authority for each consolidation and each merger.

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

History-Departments (Ref Page: 4)

List

State whether respondent is a water district or association

Water District

Name all operating departments other than water

Caldwell, Christian, Trigg

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

History - Number of Employees (Ref Page: 5)

		Count
Number of Full-time employees	19	
Number of Part-time employees	2	

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Contacts (Ref Page: 6)

	Title	Last Name	First Name	Bus. Addr.	Salary	Term Expires	County of Residence
Person to send correspondence:	Office Manager	Smith	Teresa	PO Box 308, Cadiz, KY 42211			
Person who prepared this report	CPA	Daniel	Jessica	PO Box 909, Eddyville, KY 42211			
Managers							
	General Manager	Herring	John	PO Box 308, Cadiz, KY 42211	\$73,590.00		

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Commissioners (Water Districts Only)

Item

Explain

Have visited the Water Commissioner site using the link provided below.

Attest Commissioners listed below are correct for the report period and current commissioner details are up to date.

Commissioners during Report							
Title	First Name	Last Name	Appointment	TermExpires	County Of Residence	Salary	
Chairman	Scott	Bridges	11/16/2023	12/31/2026	Trigg	1800.00	
Commissioner	Dale	Henderson	11/6/2023	12/31/2026	Trigg	1800.00	
Treasurer	Mason	Hyde	7/18/2022	12/31/2023	Trigg	1800.00	
Secretary	William	Lawrence	1/1/2020	12/31/2023	Trigg	1800.00	
Commissioner	Ted	Martin	8/2/2021	12/31/2024	Trigg	1800.00	

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Balance Sheet - Assets and Other Debits (Ref Page: 7)

	Previous Year	Current Year
UTILITY PLANT		
Utility Plant (101-106)	\$26,706,045.00	\$26,894,502.00
Less: Accumulated Depreciation and Amortization (108-110)	\$13,362,654.00	\$14,026,796.00
Net Plant	\$13,343,391.00	\$12,867,706.00
Utility Plant Acquisition Adjustments (Net) (114-115)		
Other Utility Plant Adjustments (116)		
Total Net Utility Plant	\$13,343,391.00	\$12,867,706.00
OTHER PROPERTY AND INVESTMENTS		
Nonutility Property (121)		
Less: Accumulated Depreciation and Amortization (122)		
Net Nonutility Property		
Investment in Associated Companies (123)		
Utility and Other Investments (124-125)		
Sinking Funds (126)	\$478,815.00	\$499,746.00
Other Special Funds (127)	\$2,016,898.00	\$2,056,110.00
Total Other Property and Investments	\$2,495,713.00	\$2,555,856.00
CURRENT AND ACCRUED ASSETS		
Cash (131)	\$1,073,476.00	\$970,555.00
Special Deposits (132)		
Other Special Deposits (133)		
Working Funds (134)		
Temporary Cash Investments (135)		
Accounts and Notes Receivable, Less Accumulated Provision for Uncollectible Accounts (141-144)	\$563,294.00	\$499,914.00
Accounts Receivable from Associated Companies (145)		
Notes Receivable from Associated Companies (146)		
Materials and Supplies (151-153)	\$327,415.00	\$443,871.00
Stores Expense (161)		
Prepayments (162)	\$27,322.00	\$16,481.00
Accrued Interest and Dividends Receivable (171)		
Rents Receivable (172)		
Accrued Utility Revenues (173)		\$0.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Balance Sheet - Assets and Other Debits (Ref Page: 7)

	Previous Year	Current Year
Misc. Current and Accrued Assets (174)	\$525.00	
Total Current and Accrued Assets	\$1,992,032.00	\$1,930,821.00
DEFERRED DEBITS		
Unamortized Debt Discount and Expense (181)	\$3,001.00	\$2,720.00
Extraordinary Property Losses (182)		
Preliminary Survey and Investigation Charges (183)		
Clearing Accounts (184)		
Temporary Facilities (185)		
Misc. Deferred Debits (186)	\$361,094.00	\$274,856.00
Research and Development Expenditure (187)		
Total Deffered Debits	\$364,095.00	\$277,576.00
TOTAL ASSETS AND OTHER DEBITS	\$18,195,231.00	\$17,631,959.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Balance Sheet - Equity Capital and Liabilities (Ref Page: 9)

	Previous Year	Current Year
EQUITY CAPITAL		
Appropriated Retained Earnings (214)		
Retained Earnings From Income before contributions (215.1)	(\$7,240,116.00)	(\$7,253,419.00)
Donated Capital (215.2)	\$12,808,714.00	\$12,903,874.00
Total Equity Capital	\$5,568,598.00	\$5,650,455.00
LONG-TERM DEBT		
Bonds (221)	\$8,863,490.00	\$8,508,490.00
Reaquired Bonds (222)		
Advances from Associated Companies (223)		
Other Long-Term Debt (224)		
Total Long Term Debt	\$8,863,490.00	\$8,508,490.00
CURRENT AND ACCRUED LIABILITIES		
Accounts Payable (231)	\$113,944.00	\$150,719.00
Notes Payable (232)		
Accounts Payable to Associated Co. (233)		
Notes Payable to Associated Co (234)		
Customer Deposits (235)	\$363,901.00	\$376,491.00
Accrued Taxes (236)	\$2,263.00	\$2,560.00
Accrued Interest (237)	\$108,878.00	\$98,805.00
Matured Long-Term Debt (239)		
Matured Interest (240)		
Tax Collections Payable (241)	\$8,959.00	\$10,295.00
Misc. Current and Accrued Liabilities (242)	\$2,440,459.00	\$1,586,057.00
Total Current and Accrued Liabilities	\$3,038,404.00	\$2,224,927.00
DEFFERRED CREDITS		
Unamortized Premium on Debt (251)	\$397,112.00	\$382,493.00
Advances for Construction (252)		
Other Deferred Credits (253)	\$327,627.00	\$865,594.00
Total Deferred Credits	\$724,739.00	\$1,248,087.00
OPERATING RESERVES		
Accumulated Provision For:		
Property Insurance (261)		

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Balance Sheet - Equity Capital and Liabilities (Ref Page: 9)

	Previous Year	Current Year
Injuries and Damages (262)		
Pensions and Benefits (263)		
Miscellaneous Operating Reserves (265)		
Total Operating Reserves		
Total Equity Capital and Liabilities	\$18,195,231.00	\$17,631,959.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Comparative Operating Statement (Ref Page: 11)

	Previous Year	Current Year
UTILITY OPERATING INCOME		
Operating Revenues (400)	\$2,999,958.00	\$3,327,069.00
Operating Expenses (401)	\$1,968,484.00	\$2,393,717.00
Depreciation Expenses (403)	\$649,443.00	\$664,142.00
Amortization of Utility Plant Acquisition Adjustment (406)		
Amortization Expense (407)		
Taxes Other Than Income (408.10-408.13)	\$56,683.00	\$60,092.00
Utility Operating Expenses	\$2,674,610.00	\$3,117,951.00
Utility Operating Income	\$325,348.00	\$209,118.00
Income From Utility Plant Leased to Others (413)		
Gains (Losses) from Disposition of Utility Property (414)	\$9,685.00	
Total Utility Operating Income	\$335,033.00	\$209,118.00
OTHER INCOME AND DEDUCTIONS		
Revenues From Merchandising, Jobbing and contract work (415)		
Costs and Expenses of Merchandising, Jobbing and Contract Work (416)		
Interest and Dividend Income (419)	\$18,839.00	\$37,627.00
Allowance for funds Used During Constructions (420)		
Nonutility Income (421)	\$0.00	
Miscellaneous Nonutility Expenses (426)	\$900.00	\$0.00
Total Other Income and Deductions	\$17,939.00	\$37,627.00
TAXES APPLICABLE TO OTHER INCOME		
Taxes Other Than Income (408.20)		
Total Taxes Applic. to Other Income		
INTEREST EXPENSE		
Interest Expense (427)	\$265,200.00	\$260,046.00
Amortization of Debt Discount and Exp. (428)		
Amortization of Premium on Debt (429)		
Total Interest Expense	\$265,200.00	\$260,046.00
EXTRAORDINARY ITEMS		
Extraordinary Income (433)		
Extraordinary Deductions (434)		

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Comparative Operating Statement (Ref Page: 11)

	Previous Year	Current Year
Total Extraordinary Items		
NET INCOME BEFORE CONTRIBUTIONS	\$87,772.00	(\$13,301.00)

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Statement of Retained Earnings (Ref Page: 12)

Description	Total
Appropriated Retained earnings (214)	
(state balance and purpose of each appropriated amount at year end:)	
Total Appropriated Retained Earnings	
Retained Earnings From Income Before Contributions (215.1)	
Balance beginning of year	(\$7,240,118.00)
Balance transferred from Net Income Before Contributions (435)	(\$13,301.00)
Changes to account:	
Appropriations of Retained Earnings (436)	
Adjustments to Retained Earnings (439)	
(requires Commission approval prior to use):	
Credits	
Debits	
Balance End of Year	(\$7,253,419.00)

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Statement of Retained Earnings (cont. 215.2) (Ref Page: 12)

Description	Tapping Fees	Grants	Other	Total
Donated Capital (215.2)				
Balance Beginning of the Year	\$2,510,345.00	\$8,443,838.00	\$1,854,531.00	\$12,808,714.00
Credits				
Proceeds from capital contributions (432)	\$95,160.00	\$0.00	\$0.00	\$95,160.00
Other Credits (explain)				
Debits (explain - requires Commission Approval)				
Balance End of Year	\$2,605,505.00	\$8,443,838.00	\$1,854,531.00	\$12,903,874.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Net Utility Plant (Accts. 101-106) (Ref Page: 13)

	Total
Utility Plant in Service (101)	\$26,730,806.00
Utility Plant Leased to Others (102)	
Property Held for Future Use (103)	
Utility Plant Purchased or Sold (104)	
Construction Work in Progress (105)	\$163,696.00
Completed Construction Not Classified (106)	
Total Utility Plant	\$26,894,502.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Accumulated Depreciation (Acct. 108) (Ref Page: 13)

Description	Total
Balance First of Year	\$13,362,654.00
Credit during year	
Accruals Charged to Account 108.1	\$664,142.00
Accruals Charged to Account 108.2	
Accruals Charged to Account 108.3	
Accruals Charged to Other Accounts (specify)	
(specify)	
Salvage Value Recovered on Plant Retired	
Other Credits	
(specify)	
Total Credits	\$664,142.00
Debits during year:	
Book Cost of Plant Retired	
Cost of Removal	
Other Debits	
(specify)	
Total Debits	
Balance at End of Year	\$14,026,796.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Water Utility Plant Accounts (Ref Page: 14)

	Prev Year (c)	Additions (d)	Retirement (e)	Current Yr(f)	Intngble. Plant (g)	Supply & Pump.	Water Treatmnt.	Trans. and Distr.	General Plant
Organization (301)									
Franchises (302)									
Land and Land Rights (303)	\$127,522.00	\$0.00	\$0.00	\$127,522.00	\$0.00	\$0.00	\$0.00	\$0.00	\$127,522.00
Structures and Improvements (304)	\$10,509,134.00	\$0.00	\$0.00	\$10,509,134.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10,509,134.00
Collecting and Impounding Reservoirs (305)									
Lakes, Rivers and Other Intakes (306)									
Wells and Springs (307)									
Infiltration Galleries and Tunnels (308)									
Supply Mains (309)									
Power Generation Equipment (310)									
Pumping Equipment (311)	\$760,154.00	\$0.00	\$0.00	\$760,154.00	\$0.00	\$0.00	\$0.00	\$0.00	\$760,154.00
Water Treatment Equipment (320)									
Distribution Reservoirs and Standpipes (330)									
Transmission and Distribution Mains (331)	\$13,061,223.00	\$0.00	\$0.00	\$13,061,223.00	\$0.00	\$0.00	\$0.00	\$0.00	\$13,061,223.00
Services (333)									
Meters and Meter Installations (334)	\$1,354,873.00	\$0.00	\$0.00	\$1,354,873.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,354,873.00
Hydrants (335)									
Backflow Prevention Devices (336)									

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Water Utility Plant Accounts (Ref Page: 14)

	Prev Year (c)	Additions (d)	Retirement (e)	Current Yr(f)	Intngble. Plant (g)	Supply & Pump.	Water Treatmnt.	Trans. and Distr.	General Plant
Other Plant and Misc. Equipment (339)	\$471,164.00	\$0.00	\$0.00	\$471,164.00	\$0.00	\$0.00	\$0.00	\$0.00	\$471,164.00
Office Furniture and Equip. (340)	\$98,962.00	\$0.00	\$0.00	\$98,962.00	\$0.00	\$0.00	\$0.00	\$0.00	\$98,962.00
Transportation Equipment (341)	\$306,903.00	\$40,871.00	\$0.00	\$347,774.00	\$0.00	\$0.00	\$0.00	\$0.00	\$34,774.00
Stores Equipment (342)									
Tools, Shop and Garage Equip (343)									
Laboratory Equipment (344)									
Power Operated Equipment (345)									
Communication Equipment (346)									
Miscellaneous Equipment (347)									
Other Tangible Plant (348)									
Total Water Plant	\$26,689,935.00	\$40,871.00	\$0.00	\$26,730,806.00	\$0.00	\$0.00	\$0.00	\$0.00	\$26,417,806.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Analysis of Accumulated Depreciation and Amortization by Primary Acct (Ref Page: 15)

	Balance Beg	Yr(c)	Cr-Chg Dep Exp(d)	Other Credits (e)	Charges-Plant Ret(f)	Other Charges (g)	Balance End Yr (h)
Organization (301)							
Franchises (302)							
Land and Land Rights (303)							
Structures and Improvements (304)	\$4,920,632.00		\$212,101.00	\$0.00	\$0.00	\$0.00	\$5,132,733.00
Collecting and Impounding Reservoirs (305)							
Lake, River and Other Intakes (306)							
Wells and Springs (307)							
Infiltration Galleries and Tunnells (308)							
Supply Mains (309)							
Power Generating Equipment (310)							
Pumping Equipment (311)							
Water Treatment Equipment (320)	\$27,554.00		\$21,521.00	\$0.00	\$0.00	\$0.00	\$49,075.00
Distributions Reservoirs and Standpipes (330)							
Transmission and Distribution Mains (331)	\$6,758,103.00		\$310,528.00	\$0.00	\$0.00	\$0.00	\$7,068,631.00
Services (333)							
Meters and Meter Installations (334)	\$977,092.00		\$60,852.00	\$0.00	\$0.00	\$0.00	\$1,037,944.00
Hydrants (335)							
Backflow Prevention Devices (336)							
Other Plant and Miscellaneous Equipment (339)	\$387,581.00		\$26,437.00	\$0.00	\$0.00	\$0.00	\$414,018.00
Office Furniture and Equip. (340)	\$62,189.00		\$11,553.00	\$0.00	\$0.00	\$0.00	\$73,742.00
Transportation Equipment (341)	\$229,503.00		\$21,150.00	\$0.00	\$0.00	\$0.00	\$250,653.00
Stores Equipment (342)							

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Analysis of Accumulated Depreciation and Amortization by Primary Acct (Ref Page: 15)

	Balance Beg	Yr(c)	Cr-Chg Dep Exp(d)	Other Credits (e)	Charges-Plant Ret(f)	Other Charges (g)	Balance End Yr (h)
Tools, Shop and Garage Equip (343)							
Laboratory Equipment (344)							
Power Operated Equipment (345)							
Communication Equipment (346)							
Miscellaneous Equipment (347)							
Other Tangible Plant (348)							
Totals		\$13,362,654.00	\$664,142.00	\$0.00	\$0.00	\$0.00	\$14,026,796.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Accumulated Amortization (Acct. 110) (Ref Page: 16)

Description	Total
Balance First of Year	
Credit during year	
Accruals Charged to Account 110.1	
Accruals Charged to Account 110.2	
Other Credits	
(specify)	
Total Credits	
Debits during year:	
Book Cost of Plant Retired	
Other Debits	
(specify)	
Total Debits	
Balance end of Year	

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Utility Plant Acquisition Adjustments (Accts. 114-115) (Ref Page: 16)

Description	Total
Acquisition Adjustments (114)	
(specify)	
Total Plant Acquisition Adjustments	
Accumulated Amortization (115)	
(specify)	
Total Accumulated Amortization	
Net Aquisition Adjustments	

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Accounts and Notes Receivable - Net (Accts 141-144) (Ref Page: 18)

Description	Total
Accounts and Notes Receivable	
Customer Accounts Receivable (141)	\$458,099.00
Other Accounts Receivable (142)	
Other Receivables	\$41,815.00
Total Other Accounts Receivable	\$41,815.00
Notes Receivable (144)	
Total Notes Receivable	
Total Accounts and Notes Receivable	\$499,914.00
Accumulated Provision for Uncollectible Accounts (143)	
Balance First of Year	
Add:	
Provision for uncollectibles for current year	
Collections of accountst previously written off	
Other	
(specify)	
Total Additions	
Deduct accounts written off during year:	
Other	
(specify)	
Total Deductions	
Balance end of Year	
Total Accounts and Notes Receivable - Net	\$499,914.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Investments and Special Funds (Ref Page: 17)

Description (a)	Face or Par Value (b)	Year End Book Cost
Investment in Associated Companies (123)		
Total Investment in Associated Companies		
Utility Investments (124)		
Total Utility Investments		
Other Investments (125)		
Total Other Investments		
Sinking Funds (126)		
Sinking Funds	\$0.00	\$499,746.00
	\$0.00	\$0.00
Total Sinking Funds	\$0.00	\$499,746.00
Other Special Funds (127)		
Depreciation Funds	\$0.00	\$1,000,608.00
Customer Deposits	\$0.00	\$515,423.00
Health Flex	\$0.00	\$11,600.00
System Refunding	\$0.00	\$268,072.00
Construction	\$0.00	\$260,407.00
Total Other Special Funds	\$0.00	\$2,056,110.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Materials and Supplies (151-153) (Ref Page: 19)

	Total
Plant Materials and Supplies (151)	\$443,871.00
Merchandise (152)	
Other Materials and Supplies (153)	
Total Materials and Supplies	\$443,871.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Prepayments (Acct. 162) (Ref Page: 19)

Description	Total
Prepaid Insurance	\$10,665.00
Prepaid Rents	
Prepaid Interest	
Prepaid Taxes	
Other Prepayments	
(Specify) Software Support and PSC Assessment	\$5,816.00
Total Prepayments	\$16,481.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Miscellaneous Deferred Debits (Acct. 186) (Ref Page: 20)

	Total
Miscellaneous Deferred Debits (186)	
Deferred Rate Case Expense (186.1)	
Other Deferred Debits (186.2)	\$274,856.00
Regulatory Assets (186.3)	
Total Miscellaneous Deferred Debits	\$274,856.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Unamortized Debt Discount and Expense and Premium on Debt (Accts 181 and 251) (Ref Page: 20)

Description	Amt Written Off during year	Year End Balance
Unamortized Debt Discount and Expense (181)		
2012 Refunding Deferred Loss on Refunding	\$281.00	\$2,720.00
Total Unamortized Debt Discount and Expense	\$281.00	\$2,720.00
Unamortized Premium on Debt (251)		
Reoffering Premium	\$13,901.00	\$375,315.00
Series 2012E	\$718.00	\$7,178.00
	\$0.00	\$0.00
Total Unamortized Premium on Debt	\$14,619.00	\$382,493.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Extraordinary Property Losses (Acct. 182) (Ref Page: 21)

Description	Total
Extraordinary Property Losses (182)	
(Specify)	
Total Extraordinary Property Losses	

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Advances for Construction (Acct. 252) (Ref Page: 21)

	Total
Balance First of Year	
Add credits during year	
Deduct charges during year	
Balance end of year	

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Long Term Debt (Ref Page: 22)

Description of Obligation (a)	Issue Date (b)	Mature Date (c)	Interest Expense for Year Rate (d)	Interest Expense for Year Amount(e)	Principal per Balance Sheet Date (f)
Total					

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Bonds - Account 221 (Ref Page: 23)

	Par Value of Actual Issue (1)	Cash Realized on Actual Issue (2)	Par Val of Amt. Held by or for Respondent (3)	Actually Outstanding at Close of Year (4)	Interest During Year Accrued (5)	Interest During Year Actually Paid (6)
	\$1,837,000.00	\$0.00	\$0.00	\$1,497,000.00	\$7,485.00	\$45,945.00
	\$1,465,000.00	\$0.00	\$0.00	\$790,000.00	\$13,149.00	\$28,378.00
	\$825,000.00	\$0.00	\$0.00	\$729,000.00	\$3,240.00	\$20,048.00
	\$5,070,000.00	\$0.00	\$0.00	\$4,645,000.00	\$71,974.00	\$155,909.00
	\$854,890.00	\$854,890.00	\$0.00	\$812,390.00	\$2,848.00	\$17,571.00
	\$38,100.00	\$38,100.00	\$0.00	\$35,100.00	\$109.00	\$677.00
Total	\$10,089,990.00	\$892,990.00	\$0.00	\$8,508,490.00	\$98,805.00	\$268,528.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Schedule of Bond Maturities (Ref Page: 23)

Bond Numbers (7)	Maturity Date (8)	Interest Rate (9)	Principal Amt (10)	Amounts Paid (11)	Remaing Bonds Outstanding (12)
2020I	2050	3.2000	\$4,870,000.00	\$225,000.00	\$4,645,000.00
2010B	2049	3.0000	\$1,531,500.00	\$34,500.00	\$1,497,000.00
2012E	2033	3.5000	\$855,000.00	\$65,000.00	\$790,000.00
2014	2055	2.4000	\$744,000.00	\$15,000.00	\$729,000.00
2020A	2060	2.1250	\$826,890.00	\$14,500.00	\$812,390.00
2020B	2059	1.8750	\$36,100.00	\$1,000.00	\$35,100.00
Total			\$8,863,490.00	\$355,000.00	\$8,508,490.00

(The total of Column 12 must agree with the total of col 4)

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Notes Payable (Accts 232 and 234) (Ref Page: 24)

Description	Nominal Date of Issue	Date of Maturity	Int. Rate	Int. Payment	Principal Amt Per Bal Sheet
Account 232 - Notes Payable					
Total Account 232					
Account 234 - Notes Payable to Associated Companies					
Total Account 234					

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Accounts Payable to Associated Companies (Acct. 233) (Ref Page: 24)

Description	Total
Show Payable to Each Associated Company Separately	
(Specify)	
Total	

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Taxes Accrued (Acct. 236) (Ref Page: 25)

	Total
Balance First of Year	\$2,263.00
Accruals Charged:	
Utility regulatory assessment fees (408.10)	
Property taxes (408.11)	
Payroll taxes (employer`s portion) (408.12)	\$56,145.00
Other taxes and licenses (408.13)	\$3,947.00
Taxes other than income, other income and deductions (408.20)	
Total taxes accrued	\$60,092.00
Taxes paid during year:	
Utility regulatory assessment fees (408.10)	
Property taxes (408.11)	
Payroll taxes (employer`s portion) (408.12)	\$55,848.00
Other taxes and licenses (408.13)	\$3,947.00
Taxes other than income, other income and deductions (408.20)	
Total Taxes Paid	\$59,795.00
Balance end of year	\$2,560.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Accrued Interest (Account 237) (Ref Page: 25)

Description of Debt (a)	Balance Beg of Year (b)	Interest Accrued(c)	Interest Paid (d)	Balance End of Year (e)
Long Term Debt:				
	\$108,878.00	\$260,046.00	\$270,119.00	\$98,805.00
Notes Payable:				
Customer Deposits:				
Other				
Total Acct. No 237	\$108,878.00	\$260,046.00	\$270,119.00	\$98,805.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Miscellaneous Current and Accrued Liabilities (Acct. 242) (Ref Page: 26)

	Description	Balance End Year
	Accrued Liabilities	\$68,609.00
	Compensated Absences	\$46,408.00
	Net Pension Liability	\$1,503,388.00
	Net OPEB Liability	(\$32,348.00)
Total Miscellaneous Current and Accrued Liabilities		\$1,586,057.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Regulatory Commission Expense(Acct 666 and 667) (Ref Page: 26)

Description of Case (Docket No.) (a)	Total Incurred During Year (b)	Amt Transferred to Acct 186.1 (c)	Expensed During Year (d)	Acct	Expensed During Year Amount (e)
Total					

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Water Operating Revenue (Ref Page: 27)

	Beginning Year Customers	Year End Customers	Amount
Operating Revenues			
Unmetered Water Revenue (460)			
Metered Water Revenue (461)			
Sales to Residential Customers (461.1)	5,578	6,313	\$2,608,473.00
Sales to Commercial Customers (461.2)	87	87	\$342,675.00
Sales to Industrial Customers (461.3)			
Sales to Public Authorities (461.4)			
Sales to Multiple Family Dwellings (461.5)			
Sales through Bulk Loading Stations (461.6)	5	5	\$3,897.00
Total Metered Sales	5,670	6,405	\$2,955,045.00
Fire Protection Revenue (462)			
Public Fire Protection (462.1)			
Private Fire Protection (462.2)			
Total Fire Protection Revenue			
Other Sales to Public Authorities (464)			
Sales to Irrigation Customers (465)			
Sales for Resale (466)	8	4	\$289,537.00
Interdepartmental Sales (467)			
Total Sales of Water	5,678	6,409	\$3,244,582.00
Other Water Revenues			
Guaranteed Revenues (469)			
Forfeited Discounts (470)			
Miscellaneous Service Revenues (471)			
Rents from Water Property (472)			
Interdepartments Rents (473)			
Other Water Revenues (474)			
Total Other Water Revenues			\$82,487.00
Total Water Operating Revenues			\$3,327,069.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Water Utility Expense Accounts (Ref Page: 28)

	Current Year (c)	Supply and Exp-Op. (d)	Supply and Exp-Maint. (e)	Water Treatmnt. Exp-Op. (f)	Water Treatmnt Exp-Maint. (g)	Trans and Dist. Exp- Op (h)	Trans and Dist. Exp- Maint. (i)	Customer Accts Exp. (j)	Admin and Gen Exp.
Salaries and Wages-Employees (601)	\$737,413.00	\$0.00	\$124,947.00	\$0.00	\$121,672.00	\$0.00	\$131,713.00	\$146,986.00	\$212,095.00
Salaries and Wages-Officers, Directors and Majority Stockholders (603)	\$9,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,000.00
Employee Pensions and Benefits (604)	\$164,923.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$164,923.00
Purchased Water (610)									
Purchased Power (615)	\$176,168.00	\$88,084.00	\$0.00	\$88,084.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fuel for Power Production (616)									
Chemicals (618)	\$179,717.00	\$0.00	\$0.00	\$179,717.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Materials and Supplies (620)	\$892,849.00	\$31,445.00	\$37,409.00	\$322.00	\$0.00	\$0.00	\$764,599.00	\$59,545.00	\$29,530.00
Contractual Services - Eng. (631)									
Contractual Services - Acct. (632)	\$52,762.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$52,762.00
Contractual Services - Legal (633)	\$375.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$375.00
Contractual Services - Management Fees (634)	\$60,515.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$60,515.00
Contractual Serves - Water Testing (635)									
Contractual Services - Other (636)									
Rental of Bld./Real Property (641)									

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Water Utility Expense Accounts (Ref Page: 28)

	Current Year (c)	Supply and Exp-Op. (d)	Supply and Exp-Maint. (e)	Water Treatmnt. Exp-Op. (f)	Water Treatmnt Exp-Maint. (g)	Trans and Dist. Exp- Op (h)	Trans and Dist. Exp- Maint. (i)	Customer Accts Exp. (j)	Admin and Gen Exp.
Rental of Equipment (642)									
Transportation Expenses (650)	\$40,721.00	\$0.00	\$0.00	\$1,367.00	\$0.00	\$0.00	\$21,930.00	\$17,306.00	\$118.00
Insurance - Vehicle (656)	\$27,412.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$27,412.00
Insurance - General Liability (657)	\$20,287.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$20,287.00
Insurance - Worker's Compensation (658)	\$9,558.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,558.00
Insurance - Other (659)									
Advertising Expenses (660)									
Regulatory Commission Exp.									
- Amortization of Rate Case (666)									
-Other (667)									
Water Resource Conservation Expense (668)									
Bad Debt (670)	\$4,749.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,749.00	\$0.00
Miscellaneous Expenses (675)	\$17,268.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$17,268.00
Total	\$2,393,717.00	\$119,529.00	\$162,356.00	\$269,490.00	\$121,672.00	\$0.00	\$918,242.00	\$228,586.00	\$603,843.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Pumping and Water Statistics - part one (Ref Page: 29)

	Water Purchased For Resale (Omit 000' s) (b)	Water Pumped from Wells (Omit 000' s) (c)	Total Water Pumped and Purchased (Omit 000' s) (d)	Water Sold To Customers (Omit 000' s) (e)
January	0	39,905	39,905	35,491
February	0	33,627	33,627	23,034
March	0	36,670	36,670	22,377
April	0	38,885	38,885	27,237
May	0	44,483	44,483	28,418
June	0	47,446	47,446	33,905
July	0	50,803	50,803	41,791
August	0	48,312	48,312	36,369
September	0	47,232	47,232	34,154
October	0	41,096	41,096	31,650
November	0	39,260	39,260	31,131
December	0	39,133	39,133	28,028
Total for the year	0	506,852	506,852	373,585

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Pumping and Water Statistics - part two (Ref Page: 29)

	Gallons	Date
Maximum Gallons pumped by all methods in any one day (Omit 000`s)	2,125	6/3/2023
Minimum Gallons pumped by all methods in any one day (Omit 000`s)	966	3/8/2023

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Pumping and Water Statistics - part three (Ref Page: 29)

List

If water is purchased indicate the following:

Vendor

Point of Delivery

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Pumping and Water Statistics - part four (Ref Page: 29)

Entity Receiving Water	Maximum Daily	Maximum Monthly
<p>If water is sold to other water utilities for redistribution, identify all entities with whom the utility has a water sales contract and the maximum quantity the utility is under contract</p>		
<p>to provide daily and monthly. If unlimited then list "unlimited" otherwise list in thousands of gallons.</p>		

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Sales For Resale (466) (Ref Page: 30)

Company	Gallons (Omit 000's)	Avg. Rate Per 1000 Gallons (Cents)	Amount
Christian Co Water District	76,089	\$2.81	\$213,810.00
Lyon Co Water District	20,206	\$2.81	\$56,779.00
Stewart Co Water District	0	\$2.81	\$0.00
City of Cadiz	6,743	\$2.81	\$18,948.00
Total	103,038		\$289,537.00

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Water Statistics (Ref Page: 30)

Description	Gallons (Omit 000` s)	Percent
1. Water Produced, Purchased and Distributed		
2. Water Produced	506,852	
3. Water Purchased		
4. Total Produced and Purchased	506,852	
6. Water Sales:		
7. Residential	270,547	
8. Commercial		
9. Industrial		
10. Bulk Loading Stations		
11. Wholesale	103,038	
12. Public Authorities		
13. Other Sales (explain)		
14. Total Water Sales	373,585	
16. Other Water Used		
17. Utility/water treatment plant	29,996	
18. Wastewater plant		
19. System flushing	33,550	
20. Fire department	600	
21. Other Usage (explain) Tank overflow	450	
21. Other Usage (explain)	0	
22. Total Other Water Used	64,596	
24. Water Loss		
25. Tank Overflows		
26. Line Breaks	62,000	
27. Line Leaks	6,671	
28. Excavation Damages		
29. Theft		
30. Other Loss (Explain)	0	
31. Total Water Loss	68,671	
Note: Line 14 + Line 22 + Line 31 must equal Line 4		
Water Loss Percentage		

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Water Statistics (Ref Page: 30)

Description	Gallons (Omit 000` s)	Percent
Line 31 divided by Line 4		13.5485

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Plant Statistics (Ref Page: 31)

Give the following information	
Number of fire hydrants, by size	99 Large hydrants
Number of private fire hydrants, by size	577 flush hydrants
If produced whether water supply is river, impounded streams, well, springs, artificial lake, or collector well	Impounded streams
If produced whether supply is by gravity, pumping or a combination	Pumping
Type, capacity, and elevation of reservoirs at overflow and ground level	A: Plant Tank 500,000 gal, overflow elev 620, ground elev 493. B: Rogers (Standpipe) 450,000 gal, overflow elev 704, ground elev 594. C: Pete Light (elevated) 1,000,000 gal, overflow elev 735.5, ground elev 625.5. D: South Road (elevated) 300,000 gal, overflow elev 815, ground elev 727. E: Siloan (elevated) 300,000 gal, overflow elev 704, ground elev 614. F: Cerulean (Standpipe) 300,000 gal, overflow elev 712.5, ground elev 670.5. G: Clearwell 650,000 gal, overflow elev 403, ground elev 383
Miles of main by size and kind	2" PVC-31.95, 3" PVC-105.3, 4" PVC-172.6, 6" PVC-72.9, 8" PVC-18.8, 12" PVC-12, 14" PVC-2, 16" PVC-0.66, ASBESTOS-62.3, 6" ASBESTOS-40, 8" ASBESTOS-15, 10" ASBESTOS-0.82, 12" ASBESTOS-3, 6" DUETILE IRON-0.24, 16" DUETILE IRON-5
Types of filters: gravity or pressure, number of units and total rated in capacity in gal. per min.	Gravity, 4 units, 4.13 Gpm ft, squared
Type of disinfectant, number of units and capacity in pounds per 24 hours	Chlorine gas 3 units, max cap 240 lbs/day
Station Equipment. List each pump, giving type and capacity, HP of driving unit and character of driving unit (steam/electric/int. combustion) also whether pump is high/ low duty	Plant raw: 3 turbine pumps, 50hp, 1700 gpm. Plant treated: 3 turbine pumps, 250hp, 1700 gpm. Rogers 2 300 gpm 25hp electric, McUpton 2 cint 600 gpm 30 hp electric, Cerulean (2) 30hp, 250 gpm
Quantity of fuel used: coal in lbs., gas in cu.ft., oil in gals., and electric in KWH	
Give description and total cost of any sizable additions or retirements to plant and service outside the normal system of growth for the period covered by this report	
Capacity of clear well	600,000
Peak month, in gallons of water sold	July
Peak day, in gallons of water sold	

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Plant Statistics - Part B (Ref Page: 31)

		Type
Choose one to indicate the type of Water Supply		Impounded Stream

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Plant Statistics - Part C (Ref Page: 31)

		Type
Choose one to indicate the type of Water Supply Method		Pumping

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

CheckList

Item	Value 1	Value 2	Agree	Explain
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NOTE: Any mention of page numbers or Line items refers to the annual report published and distributed for the 2002 report period.

Identifications pages (ref 4-6) have been completed.

Balance Sheet - Assets and Other Debts (ref. pg 7)

Utility Plant (Accts 101-106) agrees with Sched: Net Utility Plants Accts 101-106 (ref pg 13) Line: Total Utility Plant	26894502.00	26894502.00	OK	
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Accts 108-110 Acc. Depreciation and Amort. agrees with Sched: Analysis of Acc. Dep. and Amort. (ref pg 15) Line: Total 301-348 Col h	14026796.00	14026796.00	OK	
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Accts 114-115 Utility Plant Acquisition Adjustments agrees with Sched: Utility Plant Acquisition Adjustments (ref pg 16) Line: Net Acquisition Adjustments (114-115)	0	0	OK	
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Accts 123 Investment in Assoc. Companies agrees with Sched: Investments and Spec. Funds (ref pg 17) Line: Total Investment in Associated Companies	0	0	OK	
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Accts 124-125 Utility Investments agrees with Sched: Investments and Spec. Funds (ref pg 17) Sum of Lines: 124 Total Utility Investments and 125 Total Other Investments	0	0	OK	
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Accts 126 Sinking Funds agrees with Sched: Investments and Spec. Funds (ref pg 17) Line: 126 Total Sinking Funds	499746.00	499746.00	OK	
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Accts 127 Other Special Funds agrees with Sched: Investments and Spec. Funds (ref pg 17) Line: Total 127 Other Special Funds	2056110.00	2056110.00	OK	
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Accts 141-144 Accounts and Notes Receivable agrees with Sched: Accts and Notes Receivable (ref pg 18) Line: Net Balance 141-144	499914.00	499914.00	OK	
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Accts 151-153 Material and Supplies agrees with Sched: Material and Supplies (ref pg 19) Line: Total 151-153	443871.00	443871.00	OK	
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18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

CheckList

Item	Value 1	Value 2	Agree	Explain
Accts 162 Prepayments agrees with Sched: Prepayments (ref pg 19) Line: Total 162	16481.00	16481.00	OK	
Accts 181 Unamortized Debt Discount and Expense agrees with Sched: Unamortized Debt Discount and Exp. (ref pg 20) Line: Total 181	2720.00	2720.00	OK	
Accts 182 Extraordinary Prop. losses agrees with Sched: Extraordinary Property Losses (ref pg 21) Line: Total 182	0	0	OK	
Accts 186 Misc. Deferred Debits agrees with Sched: Misc. Deferred Debits (ref pg 20) Line: Total 186	274856.00	274856.00	OK	
Balance Sheet - Equity Capitol and Liabilities (ref. pg 9)				
Accts 214 Appropriated Retained Earnings agrees with Sched: Statement of Retained Earnings (ref pg 12) Line: Total Appropriated Retained Earnings 214	0	0	OK	
Accts 215.1 Retained Earnings from Income before Contributions with Sched: Statement of Retained Earnings (ref pg 12) Line: Balance End of Year 215.1	-7253419.00	-7253419.00	OK	
Accts 215.2 Donated Capital with Sched: Statement of Retained Earnings (cont. 215.2) (ref pg 12) Line: Balance End of Year 215.2	12903874.00	12903874.00	OK	
Accts 221 Bonds agrees with Sched: Account 221 (ref pg 23) Line: Total Outstanding Bonds Col 4	8508490.00	8508490.00	OK	
Accts 221 Bonds agrees with Sched: Schedule of Bond Maturities (ref pg 23) Line: Total Remaining Bonds (Col 12)	8508490.00	8508490.00	OK	
Accts 224 Other Long Term Debt agrees with Sched: Long Term Debt (ref pg 22) Line: Total Acct 224 col f	0	0	OK	
Accts 232 Notes Payable agrees with Sched: Notes Payable (Accts 232 and 234) (ref pg 24) Line: Total Acct 232	0	0	OK	

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

CheckList

Item	Value 1	Value 2	Agree	Explain
Accts 233 Accounts Payable to Associated Co. agrees with Sched: Accounts Payable to Assoc. Companies (Accts 233) (ref pg 24) Line: Total Acct 233	0	0	OK	
Accts 234 Notes Payable agrees with Sched: Notes Payable (Accts 232 and 234) (ref pg 24) Line: Total Acct 234	0	0	OK	
Accts 236 Taxes Accrued Balance First of Year agrees with Sched: Taxes Accrued (Accts 236) (ref pg 25) Line: Beginning Balance	2263.00	2263.00	OK	
Accts 236 Taxes Accrued agrees with Sched: Taxes Accrued (Accts 236) (ref pg 25) Line: Ending Balance	2560.00	2560.00	OK	
Accts 237 Accrued Interest Balance from Prev Year agrees with Sched: Accrued Interest (Accts 237) (ref pg 25) Line: Total 237 Balance Beginning of Year -Col b	108878.00	108878.00	OK	
Accts 237 Accrued Interest agrees with Sched: Accrued Interest (Accts 237) (ref pg 25) Line: Total 237 Balance End of Year -Col e	98805.00	98805.00	OK	
Accts 242 Misc. Current and Accrued Liabilities agrees with Sched: Misc current and Accrued Liabilities (Accts 242) (ref pg 26) Line: Total Miscellaneous and Current Accrued Liabilities	1586057.00	1586057.00	OK	
Accts 251 Unamortized Premium on Debt agrees with Sched: Unamorted Debt Discount and Expense and Premium on Debt (Accts 181 - 251) (ref pg 20) Line: Total 251	382493.00	382493.00	OK	
Accts 252 Advances for Contruction agrees with Sched: Advances for Contstruction (Accts 252) (ref pg 21) Line: Total 252	0	0	OK	
Total Equity Capital and Liabilities agrees with Balance Sheet - Assets and Other Debits: Total Assets and Other Debits	17631959.00	17631959.00	OK	
Comparitive Operating Statement (ref pg 10)				

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

CheckList

Item	Value 1	Value 2	Agree	Explain
Accts 400 Operating Revenues agrees with Sched: Water Operating Revenue (Accts 400) (ref pg 27) Line: Total Water Operating Revenues - Col e	3327069.00	3327069.00	OK	
Accts 401 Operating Expenses agrees with Sched: Water Utility Expense Accounts (ref pg 28) Line: Total Accts (601-675) - Col c	2393717.00	2393717.00	OK	
Accts 408.1 Taxes Other than Income agrees with Schedule Taxes Accrued (Acct 236) (ref pg 26) Sum of Accts 408.10 - 408.13	60092.00	60092.00	OK	
Sum of Accts 408.1 and 408.2 agrees with Sched: Taxes Accrued (Acct 236) (ref pg 25) Line: Total taxes Accrued	60092.00	60092.00	OK	
Accts 427 Interest Expense agrees with Sched: Accrued Interest (Acct 237) (ref pg 25) Line: Total Acct No 237 Col c - Interest Accrued	260046.00	260046.00	OK	
Net Income agrees with Sched: Retained Earnings (Acct 237) (ref pg 12) Line: Balance Transferred from Income (Acct 435)	-13301.00	-13301.00	OK	
Miscellaneous				
Schedule Net Utility Plant Accts 101 - 106 (ref pg 13) Utility Plant (101) agrees with Sched: Water Utility Plant Accounts (ref pg 14) Line: Total Water Plant Col f - Current Year	26730806.00	26730806.00	OK	
The analysis of water utility plant accounts Cols c though k has been completed (Ref pg 14)				
The analysis of accumulated depreciation and amortization by primary account has been completed. (Ref pg 14)				
Sched: Misc. Defferred Debits (Acct 186) Deferred Rate Case (Acct 186.1) agrees with Sched: Amort. of Rate Case (Acct 665 and 667) (ref pg 26) Line: Total Col c - Amt Transferred to 186.1	0	0	OK	
Schedule of Long Term Debt has been completed (ref pg 22)				

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

CheckList

Item	Value 1	Value 2	Agree	Explain
Schedule of Bond Maturities has been completed (ref pg 23)				
Taxes collected (example: school tax, sales tax, franchise tax) have been excluded from Operating Revenue (Ref pg 29)				
The analysis of water opertating revenue Cols c,d and e have been completed. (Ref pg 28)				
The analysis of water utility expense accounts Cols c through k have been completed. (Ref pg 28)				
Schedule of Pumping and Purchased Water Statistics has been completed (Ref pg 29)				
Sched Pumping and Water Statistics - part one (ref pg 29) Line Total for the year - Col Total (d) agrees with Sched Water Statistics (ref pg 30) Line 4. Total Produced and Purchased Col Gallons	506852	506852	OK	
Sched Pumping and Water Statistics - part one (ref pg 29) Line Total for the year - Col Water Sold(e) agrees with Sched Water Statistics (ref pg 30) Line Total Water Sales Col Gallons	373585	373585	OK	
Sched Sales for Resale (ref pg 30) 466 Total Gal agrees with Sched Water Statistics (ref pg 30) Total Water Sales	103038	103038	OK	
Schedule Water Statistics (ref pg 30) Lines 14,22 and 31 must equal Line 4	506852	506852	OK	
Have visited the Water Commissioner site. (Water Districts ONLY)				
Attest Commissioners listed on the Commissioner Schedule are correct for the report period and current commissioner details are up to date. (Water Districts ONLY)				
Oath Page Has been Completed				

18500 Barkley Lake Water District 01/01/2023 - 12/31/2023

Upload supporting documents

Document

Description

Supports

OATH

Commonwealth of Kentucky)
County of Trigg) ss:

Scott Bridges makes oath and says
(Name of Officer)

that he/she is Chairman of
(Official title of officer)

Barkley Lake Water District
(Exact legal title or name of respondent)

that it is his/her duty to have supervision over the books of account of the respondent and to control the manner in which such books are kept; that he/she knows that such books have, during the period covered by the foregoing report, been kept in good faith in accordance with the accounting and other orders of the Public Service Commission of Kentucky, effective during the said period; that he/she has carefully examined the said report and to have the best of his/her knowledge and belief the entries contained in the said report have, so far as they relate to matters of account, been accurately taken from the said books of account and are in exact accordance therewith; that he/she believes that all other statements of fact contained in the said report are true; and that the said report is a correct and complete statement of the business and affairs of the above-named respondent during the period of time from and including

January 1, 2023 , to and including December 31, 2023

Scott Bridges
(Signature of Officer)

subscribed and sworn to before me, a Notary , in and for

the State and County named in the above this 3/26/24

(Apply Seal Here)

My Commission expires 6/2/24 KNP8148

Jason Salt
(Signature of officer authorized to administer oath)

Exhibit 21

Notification to the

State Local Debt

Officer

Page 1

NOTIFICATION OF INTENT TO FINANCE AND APPLICATION FOR DEBT APPROVAL

Form # SLDO-1
Revised 1/1/2011

For DLG staff use only:

File # _____
Received _____

Completion and delivery of this form to the address below shall satisfy the requirements of KRS 65.117, which prohibits any city, county, urban-county, consolidated local government, charter county, special district, or taxing district from entering into any financing obligation of any nature, except leases under \$200,000, without first notifying the state local debt officer in writing. This form shall also serve as application for approval of debt issuance when applicable. An electronic version of the form is available at www.dlg.ky.gov.

✓ **Type of debt to be issued (must check one):** **SLDO Approval Required** **Complete Sections**

<input type="checkbox"/> Short Term Borrowing - KRS 65.7701 et seq.	No	A, B, C
<input type="checkbox"/> Lease from \$200,000 - \$500,000 - KRS 65.940 et seq.	No	A, B, D
<input type="checkbox"/> Lease exceeding \$500,000 - KRS 65.940 et seq.	Yes (Counties only)	A, B, D
<input type="checkbox"/> General Obligation Bond - KRS Chapter 66	Yes (Counties only)	A, B, E
<input type="checkbox"/> Public Project Rev. Bond - KRS Chapter 58	No	A, B, E
<input type="checkbox"/> Public Project Rev. Bond w/Lease - KRS 66.310(2)	Yes (Counties only)	A, B, D, E
<input type="checkbox"/> Industrial Revenue Bond - KRS Chapter 103	Yes (All Borrowers)	A, B, F
<input type="checkbox"/> Other Bonds (True Revenue, Utility Assessment, TIF)	No	A, B, E

X Assistance Agreement/Long Term Borrowing

Section A - Borrower Information

Agency Name	Barkley Lake Water District		
Governing Body	Barkley Lane Water District Board of Commissioners		
Street Address			
P.O. Box #	308	City	Cadiz
County	Trigg	Zip	42211
Authorized Official	Scott Bridges, Chairman, Board of Commissioners		

Section B - Terms of Financial Obligation

Please provide all relevant information. Fields in **bold** are mandatory.

Principle Amount:	\$3,678,453*	Date of Issue:	10/01/2024
Maturity Date(s):	07/01/2045	Payment Schedule:	(must attach schedule)
Term:	20 Years	Number of Renewal Periods:	0
Interest Rate(s):	2.25	Type of Interest (fixed or variable):	Fixed
Retirement Method:	Annual Principal Payment & Semi-Annual Interest Payments		
Lender's Name:	Kentucky Infrastructure Authority		
Lender's Address:	100 Airport Road, Frankfort, Kentucky 40601		
Right of Termination:	None		
Termination Penalties:	None		
Prepayment Provisions:	District may prepay without penalty		
Trustee or Paying Agent:			
AOC Funded Percentage:	0.00		

*Assistance Agreement provides for principal loan forgiveness of 27%, up to maximum of \$1,001,207 and thus limits effective maximum principal amount to \$2,677,246

**NOTIFICATION OF INTENT TO FINANCE
AND APPLICATION FOR DEBT APPROVAL**

Form # SLDO-1
Revised 1/1/2011

Section C - Note (Loan) Information/Documentation

Purpose - Briefly explain the documented need that necessitates this note (loan) and the public purpose it is intended to address. (Attach additional information if necessary):

Loan will finance the replacement of approximately 70,000 linear feet of 3-inch, 4-inch, and 6-inch asbestos concrete water lines that are at the end of useful line and whose deteriorated condition has resulted in significant unaccounted-for water loss rate. Replacement is expected to reduce water loss rate and lower operation and maintenance costs. See attached KIA Staff Analysis.

Pledge of Taxes/Description:

None

Pledge of Revenue/Description:

Revenues from water operations pledged as security; rates will produce 1.2X debt service plus O&M expenses.

Pledge of Project Revenues (Attach documentation which substantiates the revenue projections):

See attached KIA Staff Analysis.

Have bids been sought by the local governments to determine the financial and programmatic competitiveness of the note (loan) proposal? Yes No

If No, explain what steps were taken to ensure adequate competition.

Loan was secured from Kentucky Infrastructure Authority through the Kentucky State Revolving Fund. KIA is an entity of the Commonwealth of Kentucky. Its rates are below market rates.

Required Attachments

1. Certification from local government attesting to the ability to meet additional financial commitments necessitated by the note and statement as to taxes and revenues to be collected during the term of the note.

Section D - Lease Information/Documentation

Describe the real or personal property to be acquired or constructed:

Not applicable. No lease will be executed.

Type of Lease : General Obligation Revenue

Is Lease Annually Renewable? Yes No

Does Agency seek approval without a hearing? Yes No Justification: Revenue Refunding

If yes, must attach certification from counsel regarding county obligation.

Does this lease refund a prior lease? Yes No

If yes, please state the name, date and principal amount of original issue(s) being refunded:

Required Attachments (If lease requires SLDO approval)

1. Minutes from the local public hearing
2. Affidavit of publication of SLDO hearing (if hearing is required) and newspaper advertisement tear sheet
3. Copy of lease
4. Executed copy of ordinance/resolution of fiscal court authorizing the lease
5. Certification from local government attesting to the ability to meet additional financial commitments necessitated by the lease and statement as to taxes and revenues to be collected during the term of the lease.

Page 3

NOTIFICATION OF INTENT TO FINANCE AND APPLICATION FOR DEBT APPROVAL

Form # SLDO-1
Revised 1/1/2011

Section E - Bond Information/Documentation

Please provide all relevant information. Fields in **bold** are mandatory

Describe the purpose of the bond:

Not applicable. No bonds will be issued.

Bond Counsel:

Counsel Address:

Financial Advisor:

Advisor Address:

Bond Series:

Call Date:

Does this bond refund a prior bond? Yes No

If yes, please state the name, date and principal amount of original issue(s) being refunded:

Required Attachments (If SLDO Approval is Required)

1. Minutes from the local public hearing
2. Affidavit of publication of SLDO hearing and newspaper advertisement tear sheet
3. Executed copy of ordinance/resolution of fiscal court authorizing financial plan for the issuance of the bonds
4. Proposed plan of financing
5. Preliminary official statement (if applicable)
6. Sources and uses table

Additional Required Attachments for KRS Chapter 103 Bonds

1. Documentation in an appropriate form substantiating the project's eligibility under KRS 103.2101(1)(a)-(e).
2. If the project requires approval of the reduction in property taxes, attach any documentation provided to agency responsible for approval.

By signing below, the Authorized Official certifies that the foregoing is true and accurate to the best of his or her knowledge.

Name (please print) Scott Bridges

Date: 07/01/2024

Title: Chairman

Signature:

Mail to:

Department for Local Government
Attn: State Local Debt Officer
1024 Capital Center Drive, Suite 340
Frankfort, KY 40601

Fax to: 502-573-3712

EXECUTIVE SUMMARY		Reviewer	John Brady	
KENTUCKY INFRASTRUCTURE AUTHORITY		Date	July 6, 2023	
FUND F, FEDERALLY ASSISTED DRINKING WATER		KIA Loan Number	F23-002	
REVOLVING LOAN FUND		WRIS Number	WX21221017	
BORROWER	BARKLEY LAKE WATER DISTRICT TRIGG COUNTY			
BRIEF DESCRIPTION				
The Barkley Lake Water District is requesting a Fund F loan in the amount of \$3,678,453 for the Lakeside Waterline Replacement project. Approximately 70,000 linear feet of 3", 4", and 6" AC waterline in the Lakeside area will be replaced with PVC. The AC lines were installed when the water system was created in 1965 and have continued to deteriorate over the years. The project will address water loss by eliminating leaks and lower operation and maintenance costs.				
PROJECT FINANCING		PROJECT BUDGET		
Fund F Loan	\$3,678,453	Administrative Expenses	\$50,000	
CWP Grant - 21CWW205	376,651	Planning	10,000	
		Eng - Design / Const	194,203	
		Eng - Insp	119,680	
		Eng - Other	21,578	
		Construction	3,361,190	
		Contingency	298,453	
TOTAL	\$4,055,104	TOTAL	\$4,055,104	
REPAYMENT	Rate	2.25%	Est. Annual Payment	\$173,665
	Term	20 Years	1st Payment	6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Bell Engineering		
	Bond Counsel	Rubin & Hays		
PROJECT SCHEDULE	Bid Opening	Sep-23		
	Construction Start	Oct-23		
	Construction Stop	Apr-24		
DEBT PER CUSTOMER	Existing	\$1,594		
	Proposed	\$1,877		
OTHER DEBT	See Attached			
RESIDENTIAL RATES	Current	Users	Avg. Bill	
		5,763	\$41.74 (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	780,989	665,079	115,910	1.2
Audited 2020	784,381	1,604,688	(820,307)	0.5
Audited 2021	936,205	350,835	585,370	2.7
Projected 2022	898,949	605,716	293,233	1.5
Projected 2023	1,264,496	623,527	640,969	2.0
Projected 2024	1,216,535	792,377	424,158	1.5
Projected 2025	1,176,999	798,368	378,631	1.5
Projected 2026	1,136,672	792,981	343,691	1.4

Reviewer: John Brady
Date: July 6, 2023
Loan Number: F23-002

**KENTUCKY INFRASTRUCTURE AUTHORITY
DRINKING WATER STATE REVOLVING FUND (FUND F)
BARKLEY LAKE WATER DISTRICT, TRIGG COUNTY
PROJECT REVIEW
WX21221017**

I. PROJECT DESCRIPTION

The Barkley Lake Water District is requesting a Fund F loan in the amount of \$3,678,453 for the Lakeside Waterline Replacement project. Approximately 70,000 linear feet of 3", 4", and 6" AC waterline in the Lakeside area will be replaced with PVC. The AC lines were installed when the water system was created in 1965 and have continued to deteriorate over the years. The project will address water loss by eliminating leaks and lower operation and maintenance costs.

The Water District currently serves 5,669 residential customers and 91 commercial and industrial customers. They provide wholesale service to Christian County Water District, Cadiz Water and Sewer Commission, and North Stewart Utility District.

II. PROJECT BUDGET

	<u>Total</u>
Administrative Expenses	\$ 50,000
Planning	10,000
Engineering Fees - Design	151,047
Engineering Fees - Construction	43,156
Engineering Fees - Inspection	119,680
Engineering Fees - Other	21,578
Construction	3,361,190
Contingency	298,453
Total	\$ 4,055,104

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
Fund F Loan	\$ 3,678,453	91%
CWP	376,651	9%
Total	\$ 4,055,104	100%

IV. KIA DEBT SERVICE

Construction Loan	\$ 3,678,453
Less: Principal Forgiveness	<u>1,001,207</u>
Amortized Loan Amount	\$ 2,677,246
Interest Rate	2.25%
Loan Term (Years)	<u>20</u>
Estimated Annual Debt Service	\$ 166,972
Administrative Fee (0.25%)	<u>6,693</u>
Total Estimated Annual Debt Service	\$ 173,665

V. PROJECT SCHEDULE

Bid Opening	September 2023
Construction Start	October 2023
Construction Stop	April 2024

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

Customers	Current
Residential	5,669
Commercial/Industrial	91
Wholesale	<u>3</u>
Total	5,763

B) Rates

	Current	Prior
Date of Last Increase	<u>09/12/22</u>	09/02/20
Minimum (First 2,000 gallons)	\$24.94	\$21.78
Next 98,000 gallons (per 1,000)	<u>8.40</u>	7.34
Cost for 4,000 gallons	41.74	36.46
Increase %	14.5%	
Affordability Index (Rate/MHI)	0.9%	0.8%

Wholesale	Current	Prior
Date of Last Increase	<u>09/12/22</u>	09/02/20
Per 1,000 gallons	\$2.81	\$2.45
Increase %	14.7%	

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2016-2020, the Utility's service area population was with a Median Household Income (MHI) of \$53,285. 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 \$1,001,207 will be deducted from the loan balance.

IX. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the years ended December 31, 2019 through December 31 31, 2021. The non-cash impacts of GASB 68 – Accounting and Financial Reporting for Pensions and GASB 75 – Accounting and Financial Reporting for Other Postemployment Benefit have been removed from the operating expenses. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented.

HISTORY

Total water revenues increased 11.6% from \$2.50 million in 2019 to \$2.79 million in 2021 due to a rate increase implemented in 2020. Operating expenses increased 6.6% from \$1.75 million to \$1.86 million during the same period. The debt coverage ratio was 1.2, 0.5, and 2.7 in 2019, 2020, and 2021.

The balance sheet reflects a current ratio of 3.1, a debt-to-equity ratio of 2.4, 53.4 days of sales in accounts receivable, and 6.3 months of operating expenses in unrestricted cash.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Water revenues will increase 14.5% in 2023 due to an existing rate increase.
- 2) Operating expenses will increase 2% annually due to inflation.
- 3) Debt service coverage is 1.5 in 2024 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 Water 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 \$3,678,453 loan and must receive a Certificate of Public Convenience and Necessity, pursuant to KRS 278.020.

REPLACEMENT RESERVE

The replacement reserve will be 5% (\$9,200 total) of the final amount borrowed (prior to principal forgiveness) to be funded annually (\$184,000 yearly) each December 1 for 20 years and maintained for the life of the loan.

X. DEBT OBLIGATIONS

	<u>Outstanding</u>	<u>Maturity</u>
2010B Revenue Bonds	\$ 1,562,485	2049
2012E Revenue Bonds	915,000	2033
2014 Revenue Bonds	758,500	2055
2020A Revenue Bonds	840,890	2060
2020B Revenue Bonds	37,100	2059
2020I Revenue Bonds	<u>5,070,000</u>	2050
Total	\$ 9,183,975	

XI. CONTACTS

Legal Applicant	
Entity Name	Barkley Lake Water District
Authorized Official	Scott Bridges (Chairman)
County	Trigg
Email	blwd@att.net
Phone	(270) 522-8425
Address	PO Box 308 Cadiz, KY 42211

Applicant Contact	
Name	John Herring
Organization	Barkley Lake Water District
Email	blwd@att.net
Phone	(270) 924-5616
Address	PO Box 308 Cadiz, KY 42211

Project Administrator

Name	Kyle Cunningham
Organization	PEADD
Email	kyle.cunningham@ky.gov
Phone	(270) 886-9484
Address	300 Hammond Dr Hopkinsville, KY 42240

Consulting Engineer

PE Name	Bob Pickerill
Firm Name	Bell Engineering
Email	bpickerill@hkbell.com
Phone	270-886-5466
Address	PO Box 661 Hopkinsville, KY 42241

XII. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions.

BARKLEY LAKE WATER DISTRICT
FINANCIAL SUMMARY (DECEMBER YEAR END)

	Audited	Audited	Audited	Projected	Projected	Projected	Projected	Projected
	2019	2020	2021	2022	2023	2024	2025	2026
Balance Sheet								
Assets								
Current Assets	2,423,663	1,559,507	1,681,078	1,824,203	2,075,493	2,202,741	2,316,330	2,419,437
Other Assets	16,711,990	16,279,262	16,720,405	16,313,714	16,150,438	19,789,121	19,340,831	18,868,082
Total	19,135,653	17,838,769	18,401,483	18,137,917	18,225,932	21,991,862	21,657,161	21,287,520
Liabilities & Equity								
Current Liabilities	495,727	308,370	544,943	578,486	590,986	748,848	762,348	775,948
Long Term Liabilities	12,665,930	11,876,911	12,365,879	12,010,879	11,644,879	13,799,763	13,265,400	12,719,038
Total Liabilities	13,161,657	12,185,281	12,910,822	12,589,365	12,235,865	14,548,611	14,027,749	13,494,986
Net Assets	5,973,996	5,653,488	5,490,661	5,548,552	5,990,067	7,443,251	7,629,412	7,792,533
Cash Flow								
Revenues	2,503,732	2,541,260	2,794,878	2,794,878	3,198,426	3,198,426	3,198,426	3,198,426
Operating Expenses	1,746,900	1,773,328	1,862,780	1,900,036	1,938,037	1,985,998	2,025,534	2,065,861
Other Income	24,157	16,449	4,107	4,107	4,107	4,107	4,107	4,107
Cash Flow Before Debt Service	780,989	784,381	936,205	898,949	1,264,496	1,216,535	1,176,999	1,136,672
Debt Service								
Existing Debt Service	665,079	1,604,688	350,835	605,716	623,527	618,712	624,703	619,316
Proposed KIA Loan	0	0	0	0	0	173,665	173,665	173,665
Total Debt Service	665,079	1,604,688	350,835	605,716	623,527	792,377	798,368	792,981
Cash Flow After Debt Service	115,910	(820,307)	585,370	293,233	640,969	424,158	378,631	343,691
Ratios								
Current Ratio	4.9	5.1	3.1	3.2	3.5	2.9	3.0	3.1
Debt to Equity	2.2	2.2	2.4	2.3	2.0	2.0	1.8	1.7
Days Sales in Accounts Receivable	54.1	57.7	53.4	53.4	53.4	53.4	53.4	53.4
Months Operating Expenses in Unrestricted Cash	12.5	5.0	6.3	6.7	7.8	8.4	8.9	9.3
Debt Coverage Ratio	1.2	0.5	2.7	1.5	2.0	1.5	1.5	1.4

Mr. Wuetcher,

Notification has been received. Thank you.



Robert O. Brown

Executive Director
State Local Finance Officer
Office of the Governor
Department for Local Government
Financial Mgt. & Administration
100 Airport Road, 3rd Floor
Frankfort, Kentucky 40601
(502) 892-3433

From: Gerald Wuetcher <Gerald.Wuetcher@skofirm.com>

Sent: Tuesday, July 2, 2024 6:57 AM

To: Brown, Robert O (DLG) <RobertO.Brown@ky.gov>

Cc: Smith, Roger (DLG) <roger.smith@ky.gov>; Damon R. Talley <Damon.Talley@skofirm.com>; Tina Frederick <tina.frederick@skofirm.com>

Subject: Notification of Issuance of Debt Instrument - Barkley Lake Water District

****CAUTION** PDF attachments may contain links to malicious sites. Please contact the COT Service Desk ServiceCorrespondence@ky.gov for any assistance.**

Mr. Brown:

Good morning.

Stoll Keenon Ogden PLLC represents Barkley Lake Water District (“the District”) in its efforts to secure funding for certain water system improvements.

The Kentucky Infrastructure Authority (“KIA”) has agreed to lend to the District \$3,678,453 to finance those improvements to be repaid over a 20-year period. This loan will be evidenced by an Assistance Agreement between the two entities. In accordance with KRS 65.117(1), the District hereby gives notice of its intent to execute such an Assistance Agreement and enter a long-term debt obligation with KIA. Attached is a completed Notification of Intent to Finance Form containing specific information regarding the proposed long-term debt obligation.

I respectfully request that receipt of this electronic mail message and its attachment be acknowledged by separate email message.

Please contact me if there are any questions regarding the proposed long-term debt obligation.

Sincerely,

Gerald E. Wuetcher



Gerald Wuetcher
Attorney

Gerald.Wuetcher@skofirm.com

Direct: 859.231.3017

Mobile: 859.550.3894

Main: 859.231.3000

Stoll Keenon Ogden PLLC
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If you are a client of this firm, we respectfully remind you that to avoid waiver of the attorney-client privilege, you should not send, forward, or show this e-mail or attachments to anyone else. Thank you.

Exhibit 22

**Detailed Estimate of
Acquired Property by
Account**

**Detailed Estimate of Acquired Property Classified According
To The Uniform System of Accounts for
Class A/B Water Districts and Associations**

**Barkley Lake Water District
Lakeside Waterline Replacement Project**

Divisions A - E

Account No.	Account Description	Estimate
331	Transmission and Distribution Mains	\$5,050,342
333	Services	\$ 434,300
	TOTAL	\$5,484,642

Division F

Account No.	Account Description	Estimate
331	Transmission and Distribution Mains	\$777,005
333	Services	\$ 70,120
	TOTAL	\$847,125