



EXHIBIT B

APPROVALS AND PERMITS

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



Franchises required – None

Plan Review and Permit Status - The District has reviewed and approved the plans and specifications prepared by Cardinal Engineering titled “SUBDISTRICT HB WATER MAIN EXTENSION PROJECT | CAMPBELL COUNTY, KENTUCKY” dated July 29, 2024 and September 16, 2024 respectively.

The District received approval from the Division of Water on July 20, 2024 (see attached letter).

Easements and Right-of-Way Status - Easement for the project (nine) have been secured and all right-of-way statements have been submitted (permits attached).

Start date of construction – January 2025

Proposed date in service – March 2026

Plant retirements – There are no retirements as a result of this project.

Kentucky 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
Fax: 502-564-4245

Rebecca W. Goodman
SECRETARY

Anthony R. Hatton
COMMISSIONER

July 20, 2024

Kyle Ryan, P.E.
Northern KY Water District
2835 Crescent Springs Rd
Erlanger, KY 41018

RE: Sub-District HB Water Main Extension
Campbell County, KY
Northern KY Water District
AI #: 2485, APE20240008
PWSID #: 0590220-24-008

Dear Mr. Kyle Ryan:

We have reviewed the plans and specifications for the above referenced project. The plans include the construction of approximately 216 linear feet of 2-inch HDPE water main, 29,237 linear feet of 8-in DI water main and 5,644 linear feet of 8-inch PVC water main. This is to advise that plans and specifications for the above referenced project are APPROVED with respect to sanitary features of design, as of this date with the requirements contained in the attached construction permit.

If you have any questions concerning this project, please contact Terry Humphries at 502-782-6983 or terry.humphries@ky.gov.

Sincerely,

Terry Humphries, P.E.
Supervisor, Engineering Section
Water Infrastructure Branch
Division of Water

TH:CF

Enclosures

c: Cardinal Engineering Corp
Campbell County Health Department
Division of Plumbing

Distribution-Major Construction

Northern KY Water District

Facility Requirements

Activity ID No.:APE20240008

Page 1 of 5

PORT000000307 (Sub-District HB Water Main Extension) 216 linear feet of 2-inch HDPE water main, 29237 linear feet of 8-in DI water main, and 5644 linear feet of 8-inch PVC water main:

Narrative Requirements:

Condition No.	Condition
T-1	Construction of this project shall not result in the water system's inability to supply consistent water service in compliance with 401 KAR 8:010 through 8:600. [401 KAR 8:100 Section 5]
T-2	The public water system shall not implement a change to the approved plans without the prior written approval of the cabinet. [401 KAR 8:100 Section 4(3)]
T-3	A proposed change to the approved plans affecting sanitary features of design shall be submitted to the cabinet for approval in accordance with Section 2 of this administrative regulation. [401 KAR 8:100 Section 4(2)]
T-4	During construction, a set of approved plans and specifications shall be available at the job site. Construction shall be performed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 3(1)]
T-5	Unless construction begins within two (2) years from the date of approval of the final plans and specifications, the approval shall expire. [401 KAR 8:100 Section 3(3)]
T-6	Upon completion of construction, a professional engineer shall certify in writing that the project has been completed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 4(1)]
T-7	The system shall be designed to maintain a minimum pressure of 20 psi at ground level at all points in the distribution system under all conditions of flow. [Recommended Standards for Water Works 8.2.1, Drinking Water General Design Criteria IV.1.a]
T-8	Water lines should be hydraulically capable of a flow velocity of 2.5 ft/s while maintaining a pressure of at least 20 psi. [Drinking Water General Design Criteria IV.1.b]
T-9	The normal working pressure in the distribution system at the service connection shall not be less than 30 psi under peak demand flow conditions. Peak demand is defined as the maximum customer water usage rate, expressed in gallons per minute (gpm), in the pressure zone of interest during a 24 hour (diurnal) time period. [Drinking Water General Design Criteria IV.1.d]
T-10	When static pressure exceeds 150 psi, pressure reducing devices shall be provided on mains or as part of the meter setting on individual service lines in the distribution system. [Drinking Water General Design Criteria IV.1.c]
T-11	The minimum size of water main in the distribution system where fire protection is not to be provided should be a minimum of three (3) inch diameter. Any departure from minimum requirements shall be justified by hydraulic analysis and future water use, and can be considered only in special circumstances. [Recommended Standards for Water Works 8.2.2, Drinking Water General Design Criteria IV.2.b]

Distribution-Major Construction

Northern KY Water District

Facility Requirements

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PORT000000307 (Sub-District HB Water Main Extension) 216 linear feet of 2-inch HDPE water main, 29237 linear feet of 8-in DI water main, and 5644 linear feet of 8-inch PVC water main:

Narrative Requirements:

Condition No.	Condition
T-12	Water mains not designed to carry fire-flows shall not have fire hydrants connected to them. [Recommended Standards for Water Works 8.4.1.b]
T-13	Flushing devices should be sized to provide flows which will give a velocity of at least 2.5 feet per second in the water main being flushed. [Recommended Standards for Water Works 8.2.4.b, Recommended Standards for Water Works 8.4.1.b]
T-14	No flushing device shall be directly connected to any sewer. [Recommended Standards for Water Works 8.2.4.b, Recommended Standards for Water Works 8.4.1.b]
T-15	Pipe shall be constructed to a depth providing a minimum cover of 30 inches to top of pipe. [Drinking Water General Design Criteria IV.3.a]
T-16	Water mains shall be covered with sufficient earth or other insulation to prevent freezing. [Recommended Standards for Water Works 8.7]
T-17	A continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. Stones found in the trench shall be removed for a depth of at least six inches below the bottom of the pipe. [Recommended Standards for Water Works 8.7]
T-18	Water line installation shall incorporate the provisions of the AWWA standards and/or manufacturer's recommended installation procedures. [Recommended Standards for Water Works 8.7]
T-19	All materials used for the rehabilitation of water mains shall meet ANSI/NSF standards. [Recommended Standards for Water Works 8.1]
T-20	Packing and jointing materials used in the joints of pipe shall meet the standards of AWWA and the reviewing authority. [Recommended Standards for Water Works 8.1]
T-21	All tees, bends, plugs and hydrants shall be provided with reaction blocking, tie rods or joints designed to prevent movement. [Recommended Standards for Water Works 8.7]
T-22	All materials including pipe, fittings, valves and fire hydrants shall conform to the latest standards issued by the ASTM, AWWA and ANSI/NSF, where such standards exist, and be acceptable to the Division of Water. [Recommended Standards for Water Works 8.1]
T-23	Water mains which have been used previously for conveying potable water may be reused provided they meet the above standards and have been restored practically to their original condition. [Recommended Standards for Water Works 8.1]

Distribution-Major Construction

Northern KY Water District

Facility Requirements

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PORT000000307 (Sub-District HB Water Main Extension) 216 linear feet of 2-inch HDPE water main, 29237 linear feet of 8-in DI water main, and 5644 linear feet of 8-inch PVC water main:

Narrative Requirements:

Condition No.	Condition
T-24	Manufacturer approved transition joints shall be used between dissimilar piping materials. [Recommended Standards for Water Works 8.1]
T-25	The minimum size of water main which provides for fire protection and serving fire hydrants shall be six-inch diameter. [Recommended Standards for Water Works 8.2, Drinking Water General Design Criteria IV.2.a]
T-26	Pipes and pipe fittings containing more than 8% lead shall not be used. All products shall comply with ANSI/NSF standards. [Recommended Standards for Water Works 8.1]
T-27	Gaskets containing lead shall not be used. Repairs to lead-joint pipe shall be made using alternative methods. [Recommended Standards for Water Works 8.1]
T-28	Pipe materials shall be selected to protect against both internal and external pipe corrosion. [Recommended Standards for Water Works 8.1]
T-29	Dead end mains shall be equipped with a means to provide adequate flushing. [Recommended Standards for Water Works 8.2]
T-30	The hydrant lead shall be a minimum of six inches in diameter. Auxiliary valves shall be installed on all hydrant leads. [Recommended Standards for Water Works 8.4.3]
T-31	A sufficient number of valves shall be provided on water mains to minimize inconvenience and sanitary hazards during repairs. [Recommended Standards for Water Works 8.3]
T-32	Wherever possible, chambers, pits or manholes containing valves, blow-offs, meters, or other such appurtenances to a distribution system, shall not be located in areas subject to flooding or in areas of high groundwater. Such chambers or pits should drain to the ground surface, or to absorption pits underground. The chambers, pits and manholes shall not connect directly to any storm drain or sanitary sewer. Blow-offs shall not connect directly to any storm drain or sanitary sewer. [Recommended Standards for Water Works 8.6]
T-33	At high points in water mains where air can accumulate provisions shall be made to remove the air by means of air relief valves. [Recommended Standards for Water Works 8.5.1]
T-34	Automatic air relief valves shall not be used in situations where flooding of the manhole or chamber may occur. [Recommended Standards for Water Works 8.5.1]

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Facility Requirements

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PORT000000307 (Sub-District HB Water Main Extension) 216 linear feet of 2-inch HDPE water main, 29237 linear feet of 8-in DI water main, and 5644 linear feet of 8-inch PVC water main:

Narrative Requirements:

Condition No.	Condition
T-35	The open end of an air relief pipe from automatic valves shall be extended to at least one foot above grade and provided with a screened, downward-facing elbow. [Recommended Standards for Water Works 8.5.2.c]
T-36	Discharge piping from air relief valves shall not connect directly to any storm drain, storm sewer, or sanitary sewer. [Recommended Standards for Water Works 8.5.2.d]
T-37	Water pipe shall be constructed with a lateral separation of 10 feet or more from any gravity sanitary or combined sewer measured edge to edge where practical. If not practical a variance may be requested to allow the water pipe to be installed closer to the gravity sanitary or combined sewer provided the water pipe is laid in a separate trench or undisturbed shelf located on one side of the sewer with the bottom of the pipe at least 18 inches above the top of the gravity sanitary or combined sewer pipe. [Drinking Water General Design Criteria IV.3.b]
T-38	Water lines crossing sanitary, combined or storm sewers shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sanitary, combined or storm sewer with preference to the water main located above the sanitary, combined or storm sewer. [Drinking Water General Design Criteria IV.3.c]
T-39	At crossings, one full length of water pipe shall be located so both joints will be as far from the sewer as possible. [Recommended Standards for Water Works 8.8.3.b]
T-40	There shall be no connection between the distribution system and any pipes, pumps, hydrants, or tanks whereby unsafe water or other contaminating materials may be discharged or drawn into the system. [Recommended Standards for Water Works 8.10.1]
T-41	Water utilities shall have a cross connection program conforming to 401 KAR 8. [Recommended Standards for Water Works 8.10.1]
T-42	Installed pipe shall be pressure tested and leakage tested in accordance with the appropriate AWWA Standards. [Recommended Standards for Water Works 8.7.6]
T-43	New, cleaned and repaired water mains shall be disinfected in accordance with AWWA Standard C651. The specifications shall include detailed procedures for the adequate flushing, disinfection, and microbiological testing of all water mains. In an emergency or unusual situation, the disinfection procedure shall be discussed with the Division of Water. [Recommended Standards for Water Works 8.7.7]
T-44	A minimum cover of five feet shall be provided over pipe crossing underwater. [Recommended Standards for Water Works 8.9.2]

Distribution-Major Construction

Northern KY Water District

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PORT000000307 (Sub-District HB Water Main Extension) 216 linear feet of 2-inch HDPE water main, 29237 linear feet of 8-in DI water main, and 5644 linear feet of 8-inch PVC water main:

Narrative Requirements:

Condition No.	Condition
T-45	Valves shall be provided at both ends of water crossings so that the section can be isolated for testing or repair; the valves shall be easily accessible, and not subject to flooding for pipes crossing underwater. [Recommended Standards for Water Works 8.9.2.b]
T-46	Permanent taps or other provisions to allow insertion of a small meter to determine leakage and obtain water samples on each side of the valve closest to the supply source for pipes crossing. [Recommended Standards for Water Works 8.9.2.c]

Kentucky Transportation Cabinet

Right-of-Way Encroachment Permits

Note: The Northern Kentucky Water District also worked closely with the Campbell County Fiscal Court on the water main design along roads within their jurisdiction. The County is acceptable to the project but will not issue an encroachment permit until a contractor has been selected and the contractor's work sequence / schedule is known. Pending PSC approval and award of contract, NKWD will work with the selected contractor to supply the necessary information to obtain an encroachment permit from the County.

NOTICE OF COMPLETION OF ENCROACHMENT PERMIT WORK

PERMITTEE

Name: Northern Kentucky Water District
Contact Person:
Address: 2835 Crescent Springs Road
City: Erlanger
State: Kentucky
Zip: 41018
Telephone:

PROJECT IDENTIFICATION

Permit Number: 06-2023-00611

I wish to notify the Department of Highways that the above mentioned permit work and any necessary right-of-way restoration have been completed and are ready for final inspection.

Permittee

Please return this form to the address below when work is completed and ready for final inspection.

Please Return to: Permit Engineer
Department of Highways, District 6 Office
421 Buttermilk Pike
Covington, Kentucky 41017
(859) 341-2700
www.transportation.ky.gov/

LOCATION(S)			
Description	County - Route	Latitude	Longitude
Bore and jack 8" ductile iron pipe with 16" steel casing pipe under KY 9 for water main extension.	Campbell - KY 9	38.984089	-84.387019

APPROVED
JULY 26, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00611



Andy Beshear
Governor

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Department of Highways, District 6 Office
421 Buttermilk Pike
Covington, Kentucky 41017
(859) 341-2700
www.transportation.ky.gov/

Jim Gray
Secretary

July 26, 2023

Northern Kentucky Water District
2835 Crescent Springs Road
Erlanger, Kentucky 41018

Subject: Permit #: 06-2023-00611
Permit Type: Utilities - Water
Approval

Dear Applicant:

Attached is your permit approval and documentation for the subject permit.

Be advised that all work must be done in conformity with permit and application conditions. If you have any questions, please contact the Permits Section at this office.

Sincerely,

A handwritten signature in cursive script that reads "Linzy Brefeld".

Linzy Brefeld
D6 Permits Supervisor

Attachments



An Equal Opportunity Employer M/F/D

APPROVED
JULY 26, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00611



ENCROACHMENT PERMIT

KYTC KEPT #: 06-2023-00611

Permittee: Northern Kentucky Water District

Permit Type / Subtype: Utilities / Water

Work Completion Date: 7/5/2024

INDEMNITIES		
Type	Amount Required	Tracking Number
Performance Bond	\$0.00	
Cash / Check	\$0.00	
Self-Insured	\$0.00	
Payment Bond	\$0.00	
Liability Insurance	\$0.00	

This permit has been: **APPROVED** **DENIED**

Linzy Brefeld D6 Permits Supervisor 7/26/2023

SIGNATURE TITLE DATE

The TC 99-1(B), including the application TC-99 1(A) and all related and accompanying documents and drawings make up the permit. It is not a permit unless both the TC 99-1(A) and TC 99-1(B) are both present.

LOCATION(S)			
Description	County - Route	Latitude	Longitude
Bore and jack 8" ductile iron pipe with 16" steel casing pipe under KY 9 for water main extension.	Campbell - KY 9	38.984089	-84.387019



To Submit a Locate Request
 24 Hours a Day, Seven Days a Week:
 Call 811 or 800-752-6007





APPLICATION FOR ENCROACHMENT PERMIT

KYTC KEPT #: T06-2023-00611

SECTION 1: APPLICANT CONTACT INFORMATION

APPLICANT Northern Kentucky Water District	ADDRESS 2835 Crescent Springs Pike		
EMAIL	CITY Erlanger	STATE KY	ZIP 41018
CONTACT NAME 1 Kyle Ryan, PE	EMAIL KRyan@nkywater.org	PHONE # 859-426-2713	CELL #
		CONTACT NAME 2 (if applicable) Matt Bogen, PE	EMAIL mbogen@cardinalengineering.net
		PHONE # 859-392-3673	CELL #

SECTION 2: PROPOSED WORK LOCATION

ADDRESS AA Highway @ Enzweiler Rd.	CITY Alexandria	STATE Kentucky	ZIP 41001
COUNTY Campbell	ROUTE # KY 9	MILE POINT 11.62	LONGITUDE (X) -84.387060
			LATITUDE (Y) 38.984022

ADDITIONAL LOCATION INFORMATION:

FOR KYTC USE ONLY

PERMIT TYPE: Air Right Entrance Utilities Vegetation Removal Other: _____

ACCESS: Full Partial by Permit **LOCATION:** Left Right Crossing

SECTION 3: GENERAL DESCRIPTION OF WORK

Bore and jack 8" ductile iron pipe with 16" steel casing pipe under KY 9 for water main extension.

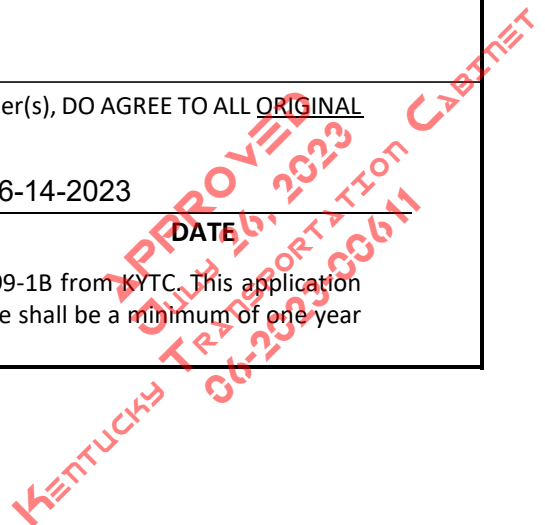
THE UNDERSIGNED APPLICANT(s), being duly authorized representative(s) or owner(s), DO AGREE TO ALL ORIGINAL UNEDITED TERMS AND CONDITIONS ON THE TC 99-1A, pages 1-4.

Steve Broering
 SIGNATURE

6-14-2023

DATE

This is not a permit unless and until the applicant(s) receives an approved TC 99-1B from KYTC. This application shall become void if not approved by the cancellation date. The cancellation date shall be a minimum of one year from the date the applicant submits their application.





APPLICATION FOR ENCROACHMENT PERMIT

TERMS AND CONDITIONS

1. The permit, including this application and all related and accompanying documents and drawings making up the permit, remains in effect and is binding upon the Applicant/Permittee, its successors and assigns, as long as the encroachment(s) exists and also until the permittee is finally relieved by the Department of Highways from all its obligations.
2. Applicant shall meet all requirements of the Clean Water Act if the project will disturb one acre or more, the applicant shall obtain a KPDES KYR10 Permit from the Kentucky Division of Water. All disturbed areas shall meet the requirements of the Department of Highway's Standard Specifications, Sections 212 and 213, as amended.
3. **INDEMNITY:**
 - A. **PERFORMANCE BOND:** The permittee shall provide to the Department a performance bond according to the Permits Manual, Section PE-203 as a guarantee of conformance with the Department's Encroachment Permit requirements.
 - B. **PAYMENT BOND:** At the discretion of the department, a payment bond shall be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
 - C. **LIABILITY INSURANCE:** Liability insurance shall be required of the permittee (in an amount approved by the department) to cover all liabilities associated with the encroachment.
 - D. It shall be the responsibility of the permittee, its successors and assigns, to maintain all indemnities in full force and effect until the permittee is authorized to release the indemnity by the Department.
4. A copy of this application and all related documents making up the approved permit shall be given to the applicant and shall be made readily available for review at the work site at all times.
5. Perpetual maintenance of the encroachment is the responsibility of the permittee, its successors and assigns, with the approval of the Department as required, unless otherwise stated.
6. Permittee, its successors and assigns, shall comply with and agree to be bound by the requirements and terms of (a) this application and all related documents making up the approved permit, (b) by the Department's Permits Manual, and (c) by the Manual on Uniform Traffic Control Devices, both manuals as revised to and in effect on the date of issuance of the permit, all of which documents are made a part thereof by this reference. Compliance by the permittee, its successors and assigns, with subsequent revisions to applicable provisions of either manual or other policy of the Department may be made a condition of allowing the encroachment to persist under the permit.
7. Permittee agrees that this and any encroachment may be ordered removed by the Department at any time, and for any reason, upon thirty days written notice to the last known address of the applicant or to the address at the location of the encroachment. The permittee agrees that the cost of removing and of restoring the associated right-of-way is the responsibility of the permittee, its successors and assigns.
8. Permittee, its successors and assigns, agree that if the Department determines that motor vehicular safety deficiencies develop as a result of the installation or use of the encroachment, the permittee, its successors and assigns, shall provide and bear the expenses to adjust, relocate, or reconstruct the facilities, add signs, auxiliary lanes, or other corrective measures reasonably deemed necessary by the Department within a reasonable time after receipt of a written notice of such deficiency. The period within which such adjustments, relocations, additions, modifications, or other corrective measures must be completed will be specified in the notice.
9. Where traffic signals are required as a condition of granting the requested permit or are thereafter required to correct motor vehicular safety deficiencies, as determined by the Department, the costs for signal equipment and installation(s) shall be borne by the permittee, its successors and assigns and the Department in its reasonable discretion and only in accordance with the Department's current policy set forth in the Traffic Operations Manual and Permits Manual. Any modifications to the permittee's entrance necessary to accommodate signalization (including necessary easement(s) on private property) shall be the responsibility of the permittee, its successors and assigns, at no expense to the Department.

APPROVED
KENTUCKY TRANSPORTATION CABINET
06-23-2021 10:50 AM



APPLICATION FOR ENCROACHMENT PERMIT

10. The requested encroachment shall not infringe on the frontage rights of an abutting owner without their written consent as hereinafter described. Each abutting owner shall express their consent, which shall be binding on their successors and assigns, by the submission of a notarized statement as follows, "I (we), _____, hereby consent to the granting of the permit requested by the applicant along Route _____, which permit does affect frontage rights along my (our) adjacent real property." By signature(s) _____, subscribed and sworn by _____, on this date _____.
11. The permit, if approved, is subject to the agreement that it shall not interfere with any similar rights or permit(s) previously granted to any other party, except as otherwise provided by law.
12. Permittee shall include documentation which describes the facilities to be constructed. Permittee, its successors and assigns, agree as a condition of the granting of the permit to construct and maintain any and all permitted facilities or other encroachments in strict accordance with the submitted and approved permit documentation and the policies and procedures of the Department. Permittee, its successors and assigns, shall not use facilities authorized herein in any manner contrary to that prescribed by the approved permit. Only normal usage as contemplated by the parties and by this application and routine maintenance are authorized by the permit.
13. Permittee, its successors and assigns, at all times from the date permitted work is commenced until such time as all permitted facilities or other encroachments are removed from the right-of-way and the right-of-way restored, **shall defend, protect, indemnify and save harmless** the Department from any and all liability claims and demands arising out of the work, encroachment, maintenance, or other undertaking by the permittee, its successors and assigns, related or undertaken pursuant to the granted permit, due to any claimed act or omission by the permittee, its servants, agents, employees, or contractors. This provision shall not inure to the benefit of any third party nor operate to enlarge any liability of the Department beyond that existing at common law or otherwise if this right to indemnity did not exist.
14. Upon a violation of any provision of the permit, or otherwise in its reasonable discretion, the Department may require additional action by the permittee, its successors and assigns, up to and including the removal of the encroachment and restoration of the right-of-way. In the event additional actions required by the Department under the permit are not undertaken as ordered and within a reasonable time, the Department may in its discretion cause those or other additional corrective actions to be undertaken and the Department shall recover the reasonable costs of those corrective actions from the permittee, its successors and assigns.
15. Permittee, its successors and assigns, shall use the encroachment premises in compliance with all requirements of federal law and regulation, including those imposed pursuant to Title VI of the Civil Right Act of 1964 (42 U.S.C. § 2000d et seq.) and the related regulations of the U.S. Department of Transportation in Title 49 C.F.R. Part 21, all as amended.
16. Permittee, its successors and assigns, agree that if the Department determines it is necessary for the facilities or other encroachment authorized by the permit to be removed, relocated or reconstructed in connection with the reconstruction, relocation or improvement of a highway, the Department may revoke permission for the encroachment to remain under the permit and may order its removal, relocation or reconstruction by the permittee, its successors and assigns, at the expense of the permittee, except where the Department is required by law to pay any or all of those costs.

APPROVED
JULY 26, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00611



APPLICATION FOR ENCROACHMENT PERMIT

- 17. Permittee agrees that the authorized permit is personal to the permittee and shall remain in effect until such time as (a) the permittee's rights to the adjoining real property to have benefitted from the requested encroachment have been relinquished, (b) until all permit obligations have been assumed by appropriate successors and assigns, and (c) unless and until a written release from permit obligations has been granted by the Department. The permit and its requirements shall also bind the real property to have benefitted from the requested encroachment to the extent permitted by law. The permit and the related encroachment become the responsibility of the successors and assigns of the permittee and the successors and assigns of each property owner benefitting from the encroachment, or the encroachment may not otherwise permissibly continue to be maintained on the right-of-way. (Does not apply to utility encroachments serving the general public.)
- 18. If work authorized by the permit is within a highway construction project in the construction phase, it shall be the responsibility of the permittee to make personal contact with the Department's Engineer on the project in order to coordinate all permitted work with the Department's prime contractor on the project.
- 19. This permit is not intended to, nor shall it, affect, alter or alleviate any requirement imposed upon the permittee, its successors and assigns, by any other agency.
- 20. Permittee, its successors and assigns, agree to contain and maintain all dirt, mud, and other debris emanating from the encroachment away from the surrounding right-of-way and the travel way of the highway hereafter and at all times that its obligations under the permit remain in effect.
- 21. Before You Dig: The contractor is instructed to call 1-800-752-6007 to reach KY 811, the One-Call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that the owners of underground facilities are not required to be members of the KY 811 One-Call Before U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Clerk to determine what utility companies have facilities in the area.
- 22. The undersigned Utility acknowledges ownership and control of the facilities proposed to be installed, modified, or extended by the Applicant/Permittee and agrees to be bound by the requirements and terms of this application and all related documents making up the approved permit, by the Department's Permits Guidance Manual, and by all applicable regulations and statutes in effect on the date of issuance of the permit. This information and application is certified correct to the best knowledge and belief of the undersigned Utility.

Northern Kentucky Water District

UTILITY

Steve Broering

NAME (Utility Representative)

Steve Broering

SIGNATURE (Utility Representative)

Engineering Technician

TITLE (Utility Representative)

6-14-2023

DATE



To Submit a Locate Request
24 Hours a Day, Seven Days a Week:
Call 811 or 800-752-6007

APPROVED
June 26, 2023
KENTUCKY TRANSPORTATION CABINET
06-26-2023 15:06:11



**KYTC Division of Maintenance
Permits Branch
District 6**



ENCROACHMENT PERMIT GENERAL NOTES & SPECIFICATIONS

YOU MUST NOTIFY KYTC BEFORE BEGINNING ANY WORK IN THE RIGHT-OF-WAY. *Failure to alert KYTC of working within the right of way may result in permit revocation.*

Two ways to notify KYTC of your construction start date:

By Email: KYTCD6PERMITS@KY.GOV

**must include permit number and county in subject line*

By Phone: 859-341-2700

**must know permit number and county when calling*

YOU MUST ALSO NOTIFY KYTC UPON COMPLETION OF WORK WITHIN RIGHT-OF-WAY. *Failure to alert KYTC of completion of work may result in withholding release of any associated bonds.*



APPROVED
JULY 26, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00611

I. SAFETY

A. General Provisions

- All signs and control of traffic shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways, latest edition, Part VI, and safety requirements shall comply with the Permits Manual. Federal law requires that traffic control shall be implemented in accordance with MUTCD standards and KYTC's Standard Specifications for Road and Bridge Construction (KYTC SSRBC) under the supervision of a certified Work Zone Traffic Control Supervisor.
- All work necessary in shoulder or ditch line areas of a state highway shall be scheduled to be promptly completed so that hazards adjacent to the traveled way are kept to an absolute minimum.
- No more than one (1) traveled-lane shall be blocked or obstructed during normal working hours. All signs and flaggers during lane closure shall conform to the MUTCD. The traveled-way and shoulders shall be kept clear of mud and other construction debris at all times during construction of the permitted facility. No non-construction equipment or vehicles or office trailers shall be allowed on the right of way during working hours. The right of way shall be left free and clear of equipment, material, and vehicles during non-working hours.
- When necessary to block one (1) traveled-lane of a state highway, the normal working hours shall be as directed by the Department. No lanes shall be blocked or obstructed during adverse weather conditions (rain, snow, fog, etc.) without specific permission from the Department.
- Working hours shall be between 9:00 AM and 3:00 PM. Further date and time restrictions are as follows:

B. Explosives

- No explosive devices or explosive material shall be used within state right of way without proper license and approval of the Kentucky Department of Mines and Minerals, Explosive Division.

C. OSHA

- Kentucky Occupational Safety and Health Standards for the construction industry, which has the effect of law, states in part: (Page 52, 1926.651, Specific Excavation Requirements) "Prior to opening an excavation, effort shall be made to determine whether underground installations, (sewer, telephone, water, fuel, electric lines, etc.) will be encountered, and if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation."

D. Archaeological

- Whenever materials of an archaeological nature are discovered during the course of construction work or maintenance operations, contact shall be made immediately with the Division of Environmental Analysis, which maintains an archaeologist on staff, or with the Office of the State Archaeologist located at the University of Kentucky. Following this consultation, further action shall be decided on a case-by-case basis by the State Highway Engineer or the Transportation Planning Engineer or their designated representative.

E. Environmental

- If the activity to which this permit related disturbs one acre or more of land, you must obtain KPDES KYR10 permit. Information can be found at <http://water.ky.gov/permitting/Pages/GeneralPermits.aspx>

F. Additional Notes

- The following additional notes apply to this permit:

Bore pits must be made safe for an errant vehicle during non working hours.

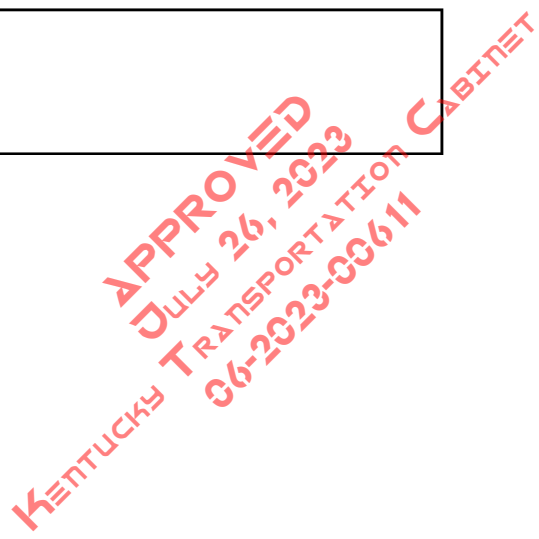
APPROVED
 JULY 26, 2023
 KENTUCKY TRANSPORTATION CABINET
 06-2023-00611

II. UTILITIES

- The permittee shall be responsible for any damage to existing utilities. Any utility modifications or relocations within state right of way necessary, as determined by the Department or by the owner of the utility, shall be at the expense of the permittee and subject to the approval of the Department. Operators of underground utilities in right of way shall be members of Kentucky 811.
- All existing manholes and valve boxes shall be adjusted to be flush with finished grade.
- All pavement cuts shall be restored per Kentucky Transportation Cabinet standards and specifications.
- Any excavation within 3' of edge of pavement will require flowable fill as backfill.
- The clear zone requirement shall be met to the extent possible in accordance with the Roadside Design Guide.
- Encasement pipe shall conform to current standards for highway crossings in accordance with the Permits Manual. Pipe encasing shall not be required if the pipe crossing is 2" or less.
- Aerial crossing of utility lines shall have a minimum clearance from the high point of the roadway to the low point of the line of 24' on fully controlled access highways and 18' on non-fully controlled access highways
- Minimum depth for underground Gas and Electric lines is 60" under roadways, ramps, and ditch lines and 42" in all other areas within state right of way. The minimum depth for all other utilities is 42" in all areas.
- When steel plates are installed over an open excavation in the roadway, they must be anchored to the pavement and have asphalt applied to all exposed edges and an MUTCD approved sign noting "Road Plates Ahead." KYTC must be notified of the location, date, time, and permit number associated to BOTH the installation and removal of the plate. Failure to do so may result in permit revocation.
- Utility poles moved for replacement must be removed in their entirety and the hole left behind must be backfilled.
- No poles or anchors shall be installed in a roadside ditch.

Utility notes specific to fully-controlled access highways ONLY:
 All work necessary within the right-of-way shall be performed behind a temporary fence erected prior to the start of work. The temporary woven wire fence shall be removed immediately upon completion of work on the right-of-way, and the control of access immediately restored to original condition, in accordance with applicable KYTC SSRBC. All vents, valves, manholes, etc., shall be located outside of the right-of-way. Encasement pipe shall extend from right-of-way line to right-of-way line and shall be one continuous run of pipe. The encasement pipe shall be welded at all joints. The boring pit and tail ditch shall extend past the existing toe of slope or bottom of ditch line and shall be a minimum of 42 inches deep. Work in interstate right-of-way requires approval from FHWA (Federal Highway Administration).

Additional notes:



III. DRAINAGE

- Negative impacts to existing drainage will be the applicant's responsibility to repair in accordance with KYTC SSRBC.
- All pipe shall be laid in a straight alignment, to proper grades, and with all materials and methods of installation including bedding and joint seating. Pipe shall not be covered until inspected by the Department and express permission obtained to make backfill. It is the applicant's responsibility to request inspection.
- All gutter lines at the base of new curbs shall be on continuous grades, and pockets of water along with curbs or in entrance areas or other paved areas within the right-of-way shall not be acceptable.
- All drainage structures and appurtenances (manholes, catch basins, curbing, inlet basins, etc.) shall conform to the Department specifications and shall be constructed in accordance with the KYTC's Standard Drawings.
- Additional notes:

IV. PAVING

- No bituminous pavement shall be installed within the right of way between November 15 and April 1, nor when the temperature is below 40 degrees Fahrenheit, without the express consent of the Department. No bituminous pavement shall be installed when the underlying course is wet.
- Paving within the right of way shall be as follows:
 - Base (Type): **Match Existing**, (Thickness) **Match Existing**
 - Surface Base (Type) **Match Existing**, (Thickness) **Match Existing**
 - Finished Surface (Type) **Match Existing**, (Thickness) **Match Existing**
- All materials and methods of construction, including base and subgrade preparation, shall be in accordance with KYTC's Standard Specifications. At least 24 hours notice to the Department is required prior to beginning paving operations.
Phone: **859-341-2700** Name: **Kenny Kool**
- Utility companies performing road cuts must restore the pavement to pre-existing condition. Pictures/videos are recommended to ensure proper placement of signs and lane markers that are temporarily removed for paving operations. In some cases, a pre-work inventory may be requested from the Department.
- Existing pavement and shoulder material shall be removed to accommodate the above paving specifications.
- The finished surface of all new pavement within the right of way shall be true to the required slope and grade, uniform in density and texture, free of irregularities, and equivalent in riding qualities to the adjacent highway pavement or as determined by KYTC.
- To ensure proper surface drainage, the new pavement shall be flush with the edge of existing highway pavement and shall slope away from the existing edge of the pavement as specified in drawings.
- Existing edge of pavement shall be saw-cut to provide a straight and uniform joint for new pavement, and an edge key will be installed in the overlap. An approved joint sealer, in accordance with Kentucky Department of Highways Standard Specifications (latest edition), shall be applied between new and existing pavements.
- Additional notes:

APPROVED
JULY 24, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00611

V. ENTRANCES

- Encroachment permits issued by KYTC in no way supersede local planning/zoning requirements or subdivision regulations. KYTC has no authority with zoning changes.
- Commercial entrances must be paved to the right-of-way line. Any deviations must be approved by KYTC before installation.
- KYTC can dictate drainage improvement installation during construction or after entrance is at final grade. The permit release does not release the permit applicant from drainage maintenance.
- Signs (ground-mounted and span-mounted), stop bars, crosswalk, and proper lane markings must be in-place before entrance is open for traffic. Lane width modifications must be approved by the Department.
- Guardrail installation must be pre-approved by the Department and installed by a KYTC pre-qualified contractor. Any guardrail that is removed during construction must be returned to the local KYTC maintenance facility.

Additional notes:

VI. TRAFFIC

- Any contractor performing work within the vicinity of KYTC roadway lighting or traffic signals, must request locates from the KYTC District 6 Traffic section at least one week before of starting work in the right-of-way.
- Applicant must maintain all KYTC Roadway signage that is impacted by the permitted work. In the event that any signs have to be moved, it is the applicant's responsibility to mark the sign's location before removal and to install the original or new sign per KYTC standards for sign installation.
- Any thermoplastic or striping damaged during the encroachment must be restored in a timely manner per KYTC standards. Stopbars, arrows, and crosswalks must be thermoplastic material, paint is not acceptable. This work must be performed by a KYTC pre-qualified contractor.
- Excavating near a signal, lighting pole, or anchoring facility must be done so that it does not impact the structural integrity of the pole. Any work that requires a temporary support or anchoring must receive prior approval.
- If the scope of the permit involves a signal build or rebuild, it is the applicant's responsibility to apply for power service (and pay monthly electrical bill) as well as request electrical inspection from the KYTC District 6 Traffic section. If the signal modifications require timing or phasing changes this must be requested at least two weeks in advance of the signal's turn-on date. KYTC will not take ownership of permitted signals until the electrical inspection is formally accepted and approved.
- Work which impacts traffic loops requires 48-hour notice to the KYTC District 6 Traffic section at 859-341-2700. Accidental damage of a traffic loop must be reported immediately to KYTC District 6's emergency line at 859-620-2738. Any disturbed traffic loops must be replaced in a timely manner. Traffic loops out of operation for more than five working days will subject the applicant to the cancellation of the permit. Loop repair must be performed by a KYTC pre-qualified contractor.

Additional Notes:

APPROVED
JULY 26, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00611

VII. SIDEWALK SPECIFICATIONS

All sidewalk modifications, retrofitting, or installations must meet current ADA guidelines

A. New Sidewalks

New sidewalk specifications, dimensions, and designs shall be in accordance with KYTC's latest edition of the Standard Specifications, or with the plans provided on the permit if approved by a KYTC D6 Construction or Permits Engineer.

All materials and methods of construction, including curing, shall be in accordance with KYTC's latest edition of the Standard Specifications.

B. Existing Sidewalks

Use of the sidewalk shall not be blocked or obstructed and a usable walkway shall be maintained across the construction area at all times per MUTCD . Sidewalk closures must be approved by the Department before implementation.

The location of ADA ramps (truncated domes/tactile warnings/etc.) will need to be field verified by KYTC before installation.

Any section of sidewalk that becomes damaged shall be entirely replaced to match existing sections.

Additional notes:

VIII. RIGHT OF WAY RESTORATION

All disturbed portions of the right of way shall be restored to grass as per Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition). A satisfactory turf, as determined by the Department, shall be established by the permittee prior to release of indemnity. Sodding or seeding shall be as follows:

Slopes 3:1 or Less: 90% Kentucky 31 Tall Fescue and 10% White Dutch Clover at 100 lbs/acre

Slopes Greater than 3:1: 90% Kentucky 31 Tall Fescue and 10% Partridge Pea at 100 lbs/acre

Urban or Residential Areas: 95% Turf Type Fall Fescue Blend and 5% White Dutch Clover at 275 lbs/acre

Two tons of clean straw mulch per acre of seeding.

Prior to seeding, the ground shall be prepared in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

Substitutes for sod such as artificial turf, rocked mulch, or paved areas may be acceptable if they are aesthetically pleasing and receive prior approval from KYTC.

All ditch-flow lines and all ditch-side slopes shall be sodded.

Existing concrete right of way markers shall not be disturbed. If damaged in any way, they shall be entirely replaced by the permittee with new concrete markers to match the original markers, in accordance with Kentucky Department of Highways Standard Drawings. Markers that are entirely removed shall be re-established in the proper locations by the permittee and to the satisfaction of the Department.

Additional notes:

APPROVED
 JULY 26, 2023
 KENTUCKY TRANSPORTATION CABINET
 06-2023-00611

IX. RIGHT OF WAY FENCE RESTORATION

- The replacement fence shall be a height of at least 48 inches and shall be of sufficient density to protect against encroachment.
- The replacement fence shall be a minimum of 1 foot and a maximum of 2 feet outside the right-of-way line
- The fence materials and design shall meet accepted industry standards and be treated as paintable. Durable finish materials such as vinyl are acceptable.
- The permittee shall be required to construct and maintain the replacement fencing to an acceptable level of functionality and state of repair. All work on the fencing shall be performed by access from the private property. Access from the roadway is not allowed.
- The existing fence shall be removed by permittee and stored at the Department's maintenance storage yard for future reuse by the Department, or the Department shall be reimbursed the cost of fencing removed.
- Right of way monuments shall be installed regardless of if replacement fence is installed or not.
- The control of access shall not be diminished as a result of replacement of the fence.
- Additional notes:

X. MISCELLANEOUS NOTES

NOTICE TO PERMITTEE

THE PERMITTEE AGREES THAT ALL WORK WITHIN THE EXISTING RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH THE CURRENT KYTC STANDARD SPECIFICATIONS AND THE PLANS AS APPROVED AND PERMITTED BY AN ENCROACHMENT PERMIT. ANY CHANGES OR VARIANCES MADE AT THE TIME OF CONSTRUCTION WITHOUT WRITTEN APPROVAL FROM THE DEPARTMENT OF HIGHWAYS SHALL BE REMOVED BY THE PERMITTEE AT NO EXPENSE TO THE DEPARTMENT OF HIGHWAYS AND SHALL BE REDONE BY THE PERMITTEE TO CONFORM WITH THE APPROVED PLANS.

KENTUCKY TRANSPORTATION CABINET
APPROVED
01/23/23



**TYPICAL HIGHWAY BORE DETAIL
 - FOR NON-FULLY CONTROLLED HIGHWAYS -**

KYTC KEPT #: _____

SECTION 1: HIGHWAY INFORMATION

COUNTY: Campbell	ROUTE: KY 9	MILE POINT: 11.62	PAVEMENT WIDTH: 93'
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SECTION 2: UTILITY INFORMATION

UTILITY TYPE: Water	PIPE TYPE: Ductile Iron Pipe	DIAMETER: 8"
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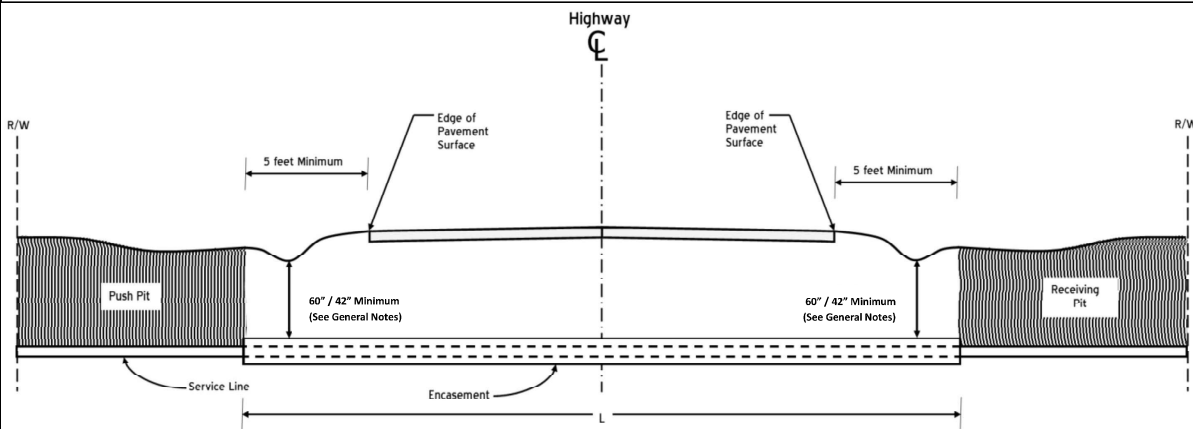
SECTION 3: ENCASEMENT INFORMATION

ENCASEMENT TYPE: Steel	DIAMETER: 16"
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SECTION 4: BORE INFORMATION

BORE TYPE: Bore & jack	LENGTH (L): 135.5 LF	DIAMETER: 16"
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SECTION 5: DETAIL FOR NON-FULLY CONTROLLED HIGHWAYS



SECTION 6: GENERAL NOTES

- Push Pit and Receiving Pit shall be backfilled and thoroughly compacted.
- All ditch lines are to remain open at all times and restored to original condition.
- Shape, Seed and Straw all disturbed areas immediately after completing the work.
- Provide traffic control as required to ensure the safety of the traveling public in accordance with the current edition of the *Manual on Uniform Traffic Control Devices*.
- The minimum depth for underground electrical lines and natural gas and petroleum fraction lines under roadways, ramps, and ditch lines is **60"**. The minimum depth for underground electrical lines, natural gas and petroleum fraction lines, and all other underground utilities is **42"** in all other areas, unless NESC requires additional depth.
- See [KYTC Permits Manual](#) for all requirements and specifications.

APPROVED
 JULY 20, 2023
 KENTUCKY TRANSPORTATION CABINET
 06-2023-00611

NOTICE OF COMPLETION OF ENCROACHMENT PERMIT WORK

PERMITTEE

Name: Northern Kentucky Water District
Contact Person:
Address: 2835 Crescent Springs Road
City: Erlanger
State: Kentucky
Zip: 41018
Telephone:

PROJECT IDENTIFICATION

Permit Number: 06-2023-00693

I wish to notify the Department of Highways that the above mentioned permit work and any necessary right-of-way restoration have been completed and are ready for final inspection.

Permittee

Please return this form to the address below when work is completed and ready for final inspection.

Please Return to: Permit Engineer
Department of Highways, District 6 Office
421 Buttermilk Pike
Covington, Kentucky 41017
(859) 341-2700
www.transportation.ky.gov/

LOCATION(S)			
Description	County - Route	Latitude	Longitude
Install 8" ductile iron water main crossing for extension of new main onto Poplar Thicket Rd.	Campbell - KY 915	38.958464	-84.421570

APPROVED
AUGUST 1, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00693



Andy Beshear
Governor

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Department of Highways, District 6 Office
421 Buttermilk Pike
Covington, Kentucky 41017
(859) 341-2700
www.transportation.ky.gov/

Jim Gray
Secretary

August 1, 2023

Northern Kentucky Water District
2835 Crescent Springs Road
Erlanger, Kentucky 41018

Subject: Permit #: 06-2023-00693
Permit Type: Utilities - Water
Approval

Dear Applicant:

Attached is your permit approval and documentation for the subject permit.

Be advised that all work must be done in conformity with permit and application conditions. If you have any questions, please contact the Permits Section at this office.

Sincerely,

A handwritten signature in cursive script that reads "Linzy Brefeld".

Linzy Brefeld
D6 Permits Supervisor

Attachments



An Equal Opportunity Employer M/F/D

APPROVED
AUGUST 1, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00693



ENCROACHMENT PERMIT

KYTC KEPT #: 06-2023-00693

Permittee: Northern Kentucky Water District

Permit Type / Subtype: Utilities / Water

Work Completion Date: 7/25/2024

INDEMNITIES		
Type	Amount Required	Tracking Number
Performance Bond	\$0.00	
Cash / Check	\$0.00	
Self-Insured	\$0.00	
Payment Bond	\$0.00	
Liability Insurance	\$0.00	

This permit has been: **APPROVED** **DENIED**

Linzy Brefeld D6 Permits Supervisor 8/1/2023

SIGNATURE TITLE DATE

The TC 99-1(B), including the application TC-99 1(A) and all related and accompanying documents and drawings make up the permit. It is not a permit unless both the TC 99-1(A) and TC 99-1(B) are both present.

LOCATION(S)			
Description	County - Route	Latitude	Longitude
Install 8" ductile iron water main crossing for extension of new main onto Poplar Thicket Rd.	Campbell - KY 915	38.958464	-84.421570

APPROVED
 AUGUST 1, 2023
 KENTUCKY TRANSPORTATION CABINET
 06-2023-00693



To Submit a Locate Request
 24 Hours a Day, Seven Days a Week:
 Call 811 or 800-752-6007



APPLICATION FOR ENCROACHMENT PERMIT

KYTC KEPT #: T06-2023-00693

SECTION 1: APPLICANT CONTACT INFORMATION

APPLICANT Northern Kentucky Water District	ADDRESS 2835 Crescent Springs Pike		
EMAIL	CITY Erlanger	STATE KY	ZIP 41018
CONTACT NAME 1 Kyle Ryan, PE	EMAIL KRyan@nkywater.org	PHONE # 859-426-2713	CELL #
		CONTACT NAME 2 (if applicable) Matt Bogen, PE	EMAIL mbogen@cardinalengineering.net
		PHONE # 859-392-3673	CELL #

SECTION 2: PROPOSED WORK LOCATION

ADDRESS Licking Pike @ Poplar Thicket Rd.	CITY Unincorporated	STATE Kentucky	ZIP 41001
COUNTY Campbell	ROUTE # KY 915	MILE POINT 3.67	LONGITUDE (X) -84.421537
			LATITUDE (Y) 38.958437

ADDITIONAL LOCATION INFORMATION:

FOR KYTC USE ONLY

PERMIT TYPE: Air Right Entrance Utilities Vegetation Removal Other: _____

ACCESS: Full Partial by Permit **LOCATION:** Left Right Crossing

SECTION 3: GENERAL DESCRIPTION OF WORK

Install 8" ductile iron water main crossing for extension of new main onto Poplar Thicket Rd. Applicant requests permission to open cut KY 915 crossing due to geotechnical concerns and lack of space for bore & jack pits. Trench shall be restored to KYTC standards.

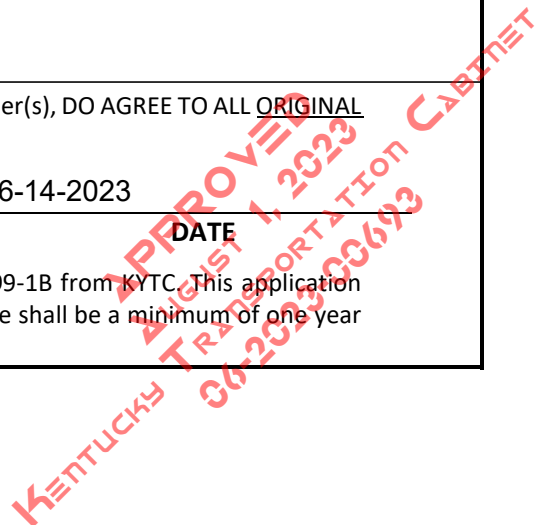
THE UNDERSIGNED APPLICANT(s), being duly authorized representative(s) or owner(s), DO AGREE TO ALL ORIGINAL UNEDITED TERMS AND CONDITIONS ON THE TC 99-1A, pages 1-4.

Steve Broering
 SIGNATURE

6-14-2023

DATE

This is not a permit unless and until the applicant(s) receives an approved TC 99-1B from KYTC. This application shall become void if not approved by the cancellation date. The cancellation date shall be a minimum of one year from the date the applicant submits their application.





APPLICATION FOR ENCROACHMENT PERMIT

TERMS AND CONDITIONS

1. The permit, including this application and all related and accompanying documents and drawings making up the permit, remains in effect and is binding upon the Applicant/Permittee, its successors and assigns, as long as the encroachment(s) exists and also until the permittee is finally relieved by the Department of Highways from all its obligations.
2. Applicant shall meet all requirements of the Clean Water Act if the project will disturb one acre or more, the applicant shall obtain a KPDES KYR10 Permit from the Kentucky Division of Water. All disturbed areas shall meet the requirements of the Department of Highway's Standard Specifications, Sections 212 and 213, as amended.
3. **INDEMNITY:**
 - A. **PERFORMANCE BOND:** The permittee shall provide to the Department a performance bond according to the Permits Manual, Section PE-203 as a guarantee of conformance with the Department's Encroachment Permit requirements.
 - B. **PAYMENT BOND:** At the discretion of the department, a payment bond shall be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
 - C. **LIABILITY INSURANCE:** Liability insurance shall be required of the permittee (in an amount approved by the department) to cover all liabilities associated with the encroachment.
 - D. It shall be the responsibility of the permittee, its successors and assigns, to maintain all indemnities in full force and effect until the permittee is authorized to release the indemnity by the Department.
4. A copy of this application and all related documents making up the approved permit shall be given to the applicant and shall be made readily available for review at the work site at all times.
5. Perpetual maintenance of the encroachment is the responsibility of the permittee, its successors and assigns, with the approval of the Department as required, unless otherwise stated.
6. Permittee, its successors and assigns, shall comply with and agree to be bound by the requirements and terms of (a) this application and all related documents making up the approved permit, (b) by the Department's Permits Manual, and (c) by the Manual on Uniform Traffic Control Devices, both manuals as revised to and in effect on the date of issuance of the permit, all of which documents are made a part thereof by this reference. Compliance by the permittee, its successors and assigns, with subsequent revisions to applicable provisions of either manual or other policy of the Department may be made a condition of allowing the encroachment to persist under the permit.
7. Permittee agrees that this and any encroachment may be ordered removed by the Department at any time, and for any reason, upon thirty days written notice to the last known address of the applicant or to the address at the location of the encroachment. The permittee agrees that the cost of removing and of restoring the associated right-of-way is the responsibility of the permittee, its successors and assigns.
8. Permittee, its successors and assigns, agree that if the Department determines that motor vehicular safety deficiencies develop as a result of the installation or use of the encroachment, the permittee, its successors and assigns, shall provide and bear the expenses to adjust, relocate, or reconstruct the facilities, add signs, auxiliary lanes, or other corrective measures reasonably deemed necessary by the Department within a reasonable time after receipt of a written notice of such deficiency. The period within which such adjustments, relocations, additions, modifications, or other corrective measures must be completed will be specified in the notice.
9. Where traffic signals are required as a condition of granting the requested permit or are thereafter required to correct motor vehicular safety deficiencies, as determined by the Department, the costs for signal equipment and installation(s) shall be borne by the permittee, its successors and assigns and the Department in its reasonable discretion and only in accordance with the Department's current policy set forth in the Traffic Operations Manual and Permits Manual. Any modifications to the permittee's entrance necessary to accommodate signalization (including necessary easement(s) on private property) shall be the responsibility of the permittee, its successors and assigns, at no expense to the Department.

APPROVED
August 19, 2022
KENTUCKY TRANSPORTATION CABINET
30-2022-0043



APPLICATION FOR ENCROACHMENT PERMIT

10. The requested encroachment shall not infringe on the frontage rights of an abutting owner without their written consent as hereinafter described. Each abutting owner shall express their consent, which shall be binding on their successors and assigns, by the submission of a notarized statement as follows, "I (we), _____, hereby consent to the granting of the permit requested by the applicant along Route _____, which permit does affect frontage rights along my (our) adjacent real property." By signature(s) _____, subscribed and sworn by _____, on this date _____.
11. The permit, if approved, is subject to the agreement that it shall not interfere with any similar rights or permit(s) previously granted to any other party, except as otherwise provided by law.
12. Permittee shall include documentation which describes the facilities to be constructed. Permittee, its successors and assigns, agree as a condition of the granting of the permit to construct and maintain any and all permitted facilities or other encroachments in strict accordance with the submitted and approved permit documentation and the policies and procedures of the Department. Permittee, its successors and assigns, shall not use facilities authorized herein in any manner contrary to that prescribed by the approved permit. Only normal usage as contemplated by the parties and by this application and routine maintenance are authorized by the permit.
13. Permittee, its successors and assigns, at all times from the date permitted work is commenced until such time as all permitted facilities or other encroachments are removed from the right-of-way and the right-of-way restored, **shall defend, protect, indemnify and save harmless** the Department from any and all liability claims and demands arising out of the work, encroachment, maintenance, or other undertaking by the permittee, its successors and assigns, related or undertaken pursuant to the granted permit, due to any claimed act or omission by the permittee, its servants, agents, employees, or contractors. This provision shall not inure to the benefit of any third party nor operate to enlarge any liability of the Department beyond that existing at common law or otherwise if this right to indemnity did not exist.
14. Upon a violation of any provision of the permit, or otherwise in its reasonable discretion, the Department may require additional action by the permittee, its successors and assigns, up to and including the removal of the encroachment and restoration of the right-of-way. In the event additional actions required by the Department under the permit are not undertaken as ordered and within a reasonable time, the Department may in its discretion cause those or other additional corrective actions to be undertaken and the Department shall recover the reasonable costs of those corrective actions from the permittee, its successors and assigns.
15. Permittee, its successors and assigns, shall use the encroachment premises in compliance with all requirements of federal law and regulation, including those imposed pursuant to Title VI of the Civil Right Act of 1964 (42 U.S.C. § 2000d et seq.) and the related regulations of the U.S. Department of Transportation in Title 49 C.F.R. Part 21, all as amended.
16. Permittee, its successors and assigns, agree that if the Department determines it is necessary for the facilities or other encroachment authorized by the permit to be removed, relocated or reconstructed in connection with the reconstruction, relocation or improvement of a highway, the Department may revoke permission for the encroachment to remain under the permit and may order its removal, relocation or reconstruction by the permittee, its successors and assigns, at the expense of the permittee, except where the Department is required by law to pay any or all of those costs.

APPROVED
AUGUST 1, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-06693



APPLICATION FOR ENCROACHMENT PERMIT

- 17. Permittee agrees that the authorized permit is personal to the permittee and shall remain in effect until such time as (a) the permittee's rights to the adjoining real property to have benefitted from the requested encroachment have been relinquished, (b) until all permit obligations have been assumed by appropriate successors and assigns, and (c) unless and until a written release from permit obligations has been granted by the Department. The permit and its requirements shall also bind the real property to have benefitted from the requested encroachment to the extent permitted by law. The permit and the related encroachment become the responsibility of the successors and assigns of the permittee and the successors and assigns of each property owner benefitting from the encroachment, or the encroachment may not otherwise permissibly continue to be maintained on the right-of-way. (Does not apply to utility encroachments serving the general public.)
- 18. If work authorized by the permit is within a highway construction project in the construction phase, it shall be the responsibility of the permittee to make personal contact with the Department's Engineer on the project in order to coordinate all permitted work with the Department's prime contractor on the project.
- 19. This permit is not intended to, nor shall it, affect, alter or alleviate any requirement imposed upon the permittee, its successors and assigns, by any other agency.
- 20. Permittee, its successors and assigns, agree to contain and maintain all dirt, mud, and other debris emanating from the encroachment away from the surrounding right-of-way and the travel way of the highway hereafter and at all times that its obligations under the permit remain in effect.
- 21. Before You Dig: The contractor is instructed to call 1-800-752-6007 to reach KY 811, the One-Call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that the owners of underground facilities are not required to be members of the KY 811 One-Call Before U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Clerk to determine what utility companies have facilities in the area.
- 22. The undersigned Utility acknowledges ownership and control of the facilities proposed to be installed, modified, or extended by the Applicant/Permittee and agrees to be bound by the requirements and terms of this application and all related documents making up the approved permit, by the Department's Permits Guidance Manual, and by all applicable regulations and statutes in effect on the date of issuance of the permit. This information and application is certified correct to the best knowledge and belief of the undersigned Utility.

Northern Kentucky Water District

UTILITY

Steve Broering

NAME (Utility Representative)

Steve Broering

SIGNATURE (Utility Representative)

Engineering Technician

TITLE (Utility Representative)

6-14-2023

DATE



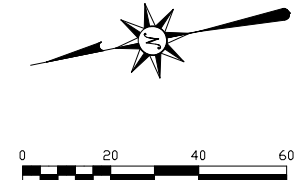
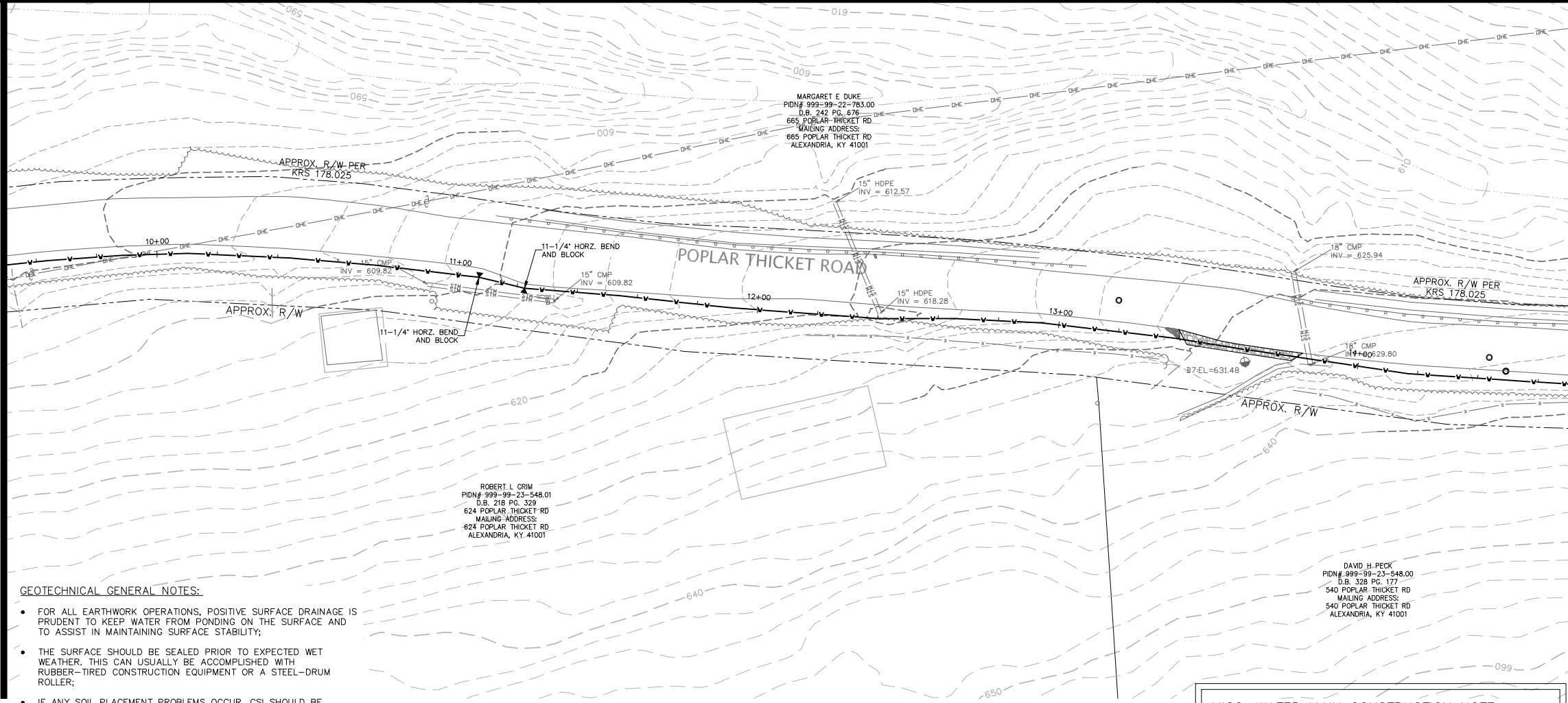
Know what's below. Call before you dig.

To Submit a Locate Request
24 Hours a Day, Seven Days a Week:
Call 811 or 800-752-6007

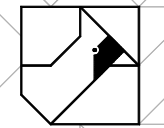
APPROVED
June 1, 2023
KENTUCKY TRANSPORTATION CABINET
30-2023-03693

SEE SHEET C-548

SEE SHEET C-550



REVISIONS	DATE	#	ITEM



CARDINAL
ENGINEERING
LAND SURVEYING
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE: (505) 581-9600
FAX: (559) 581-9636

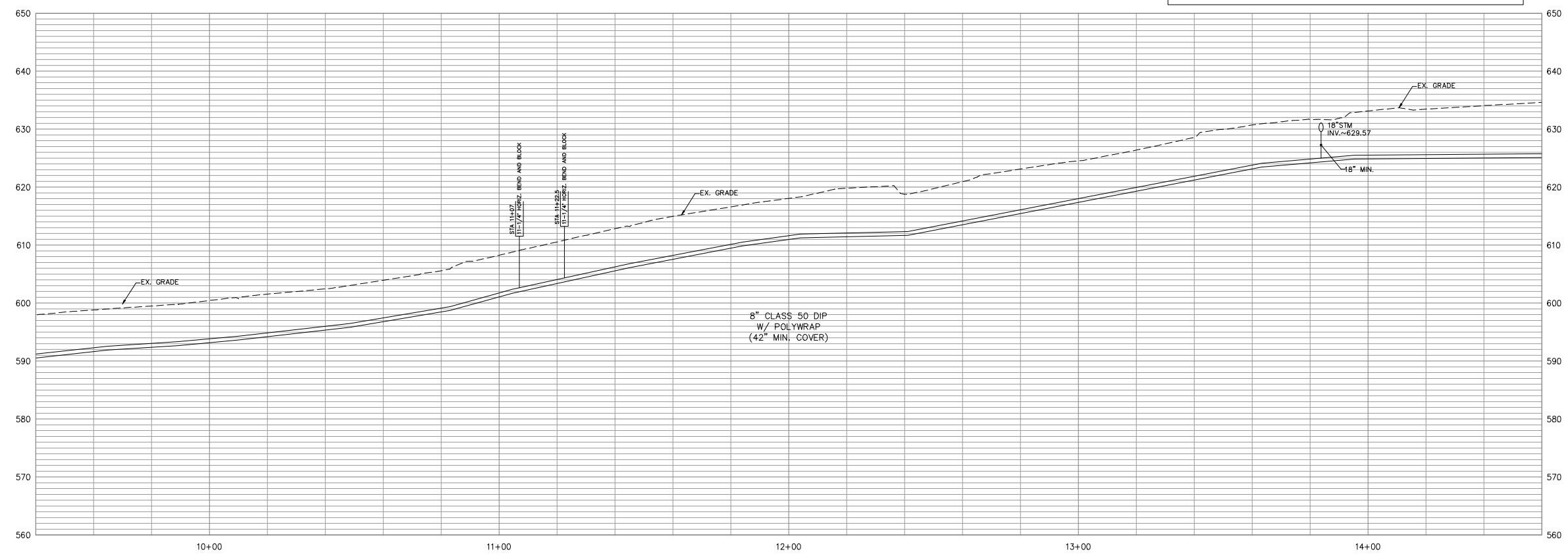
WEBSITE: <http://www.cardinalengineering.net>

GEOTECHNICAL GENERAL NOTES:

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MISC. WATER MAIN CONSTRUCTION NOTE

1. THE COST FOR TESTING THE WATER MAIN, TEMPORARY FLUSHING DEVICES, TEMPORARY PLUGS AND BLOCKS BE INCIDENTAL TO THE PROJECT.



PROJECT:
**WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION**

CLIENT:
**NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640**

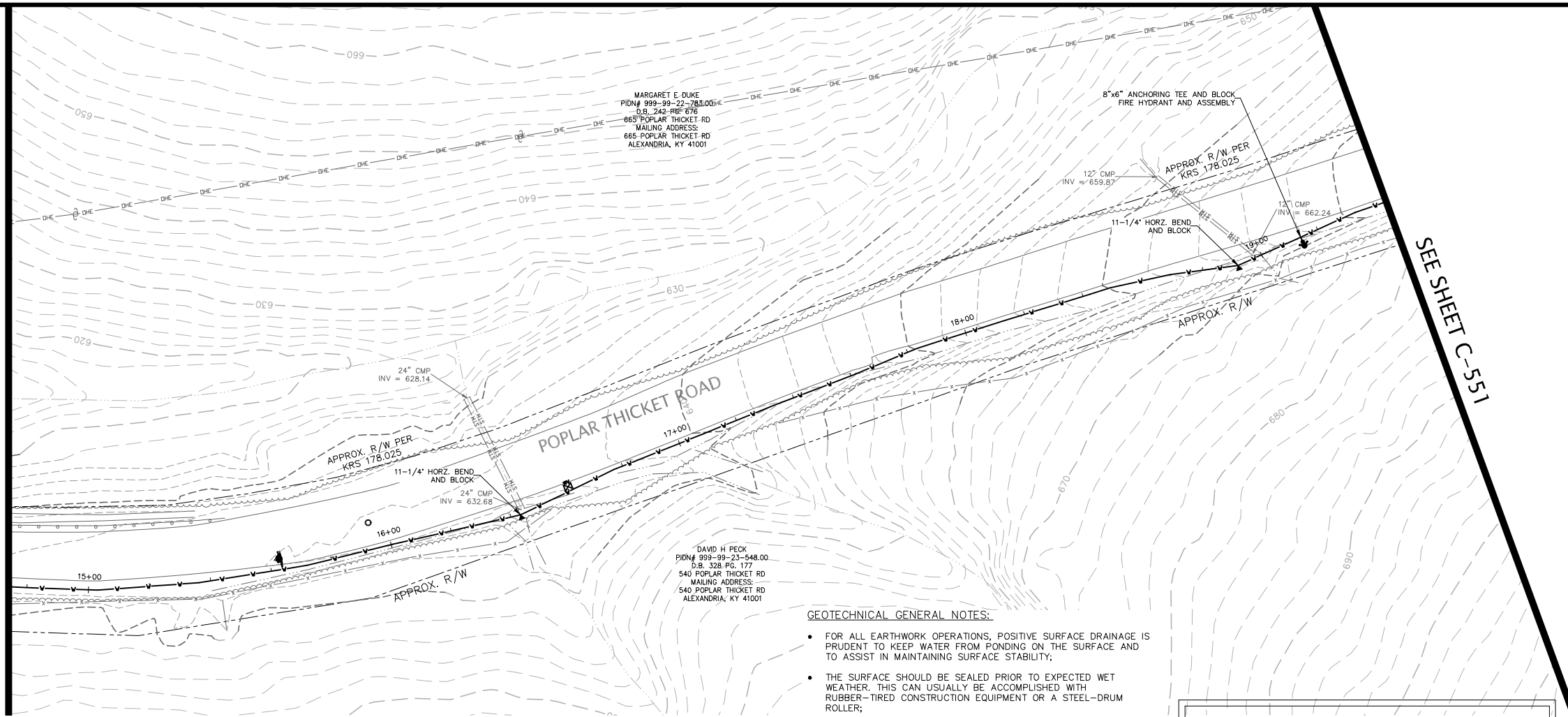
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KCH
CHECKED BY:
KCH
PROJECT MANAGER:
KCH

PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

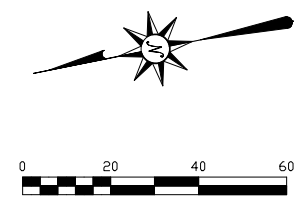
PLAN & PROFILE
SHEET
C-549

APPROVED
AUGUST 11, 2023
KENTUCKY TRANSPORTATION CABINET

SEE SHEET C-549



SEE SHEET C-551



REVISIONS	DATE	#	ITEM

CARDINAL
ENGINEERING
LAND SURVEYING
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE: (502) 581-9600
FAX: (502) 581-9636

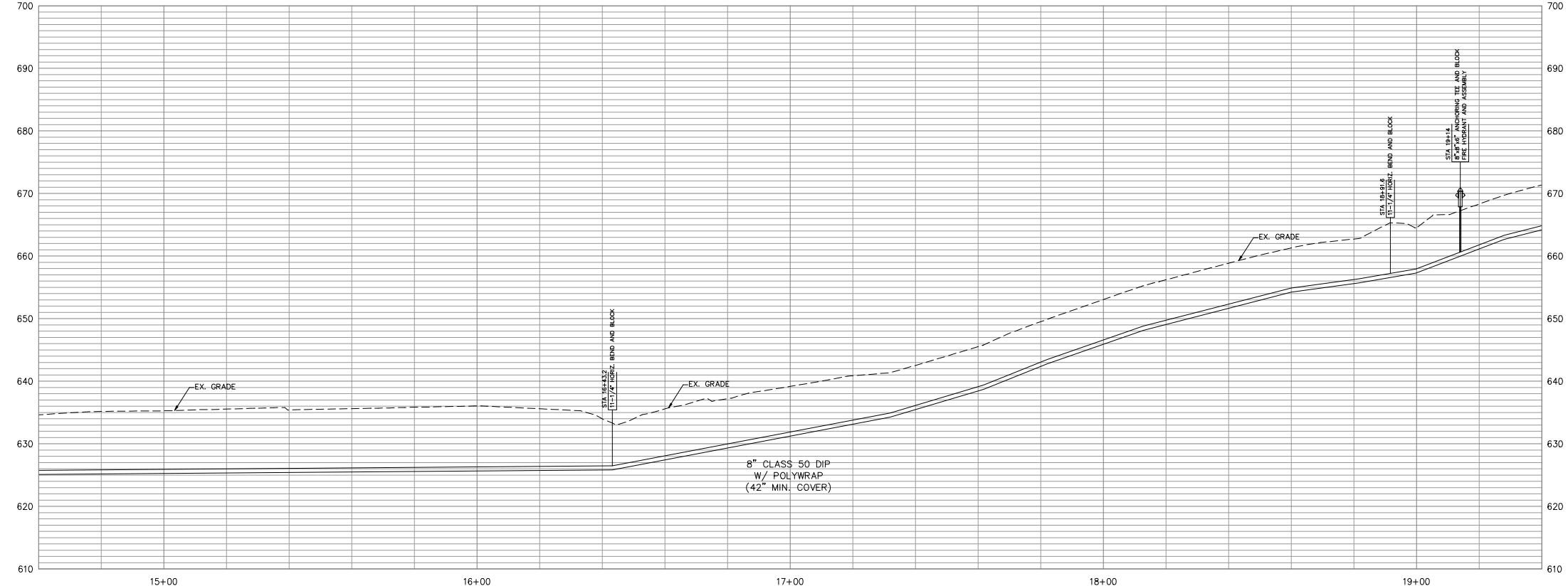
WEBSITE: <http://www.cardinalengineering.net>

MARGARET E DUKE
PID# 99-99-22-783.00
D.B. 242-RF-676
865 POPLAR THICKET RD
MAILING ADDRESS:
665 POPLAR THICKET RD
ALEXANDRIA, KY 41001

DAVID H PECK
PID# 99-99-23-548.00
S.B. 328 PG. 177
540 POPLAR THICKET RD
MAILING ADDRESS:
540 POPLAR THICKET RD
ALEXANDRIA, KY 41001

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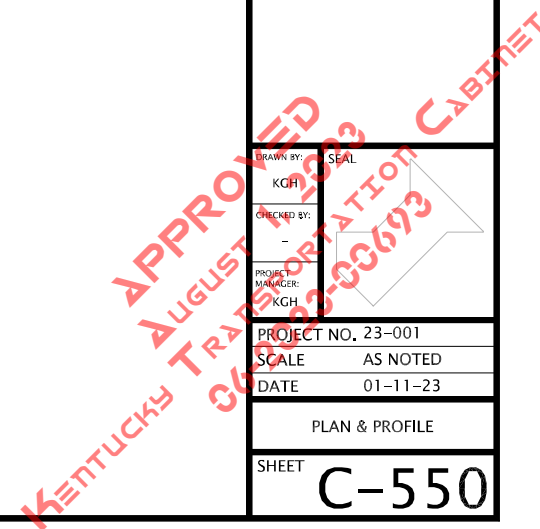
PROJECT:
WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT:
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

DRAWN BY: SEAL
KCH
CHECKED BY:
PROJECT MANAGER:
KCH

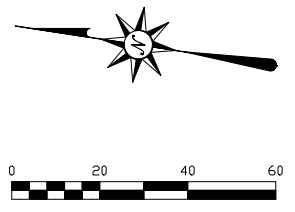
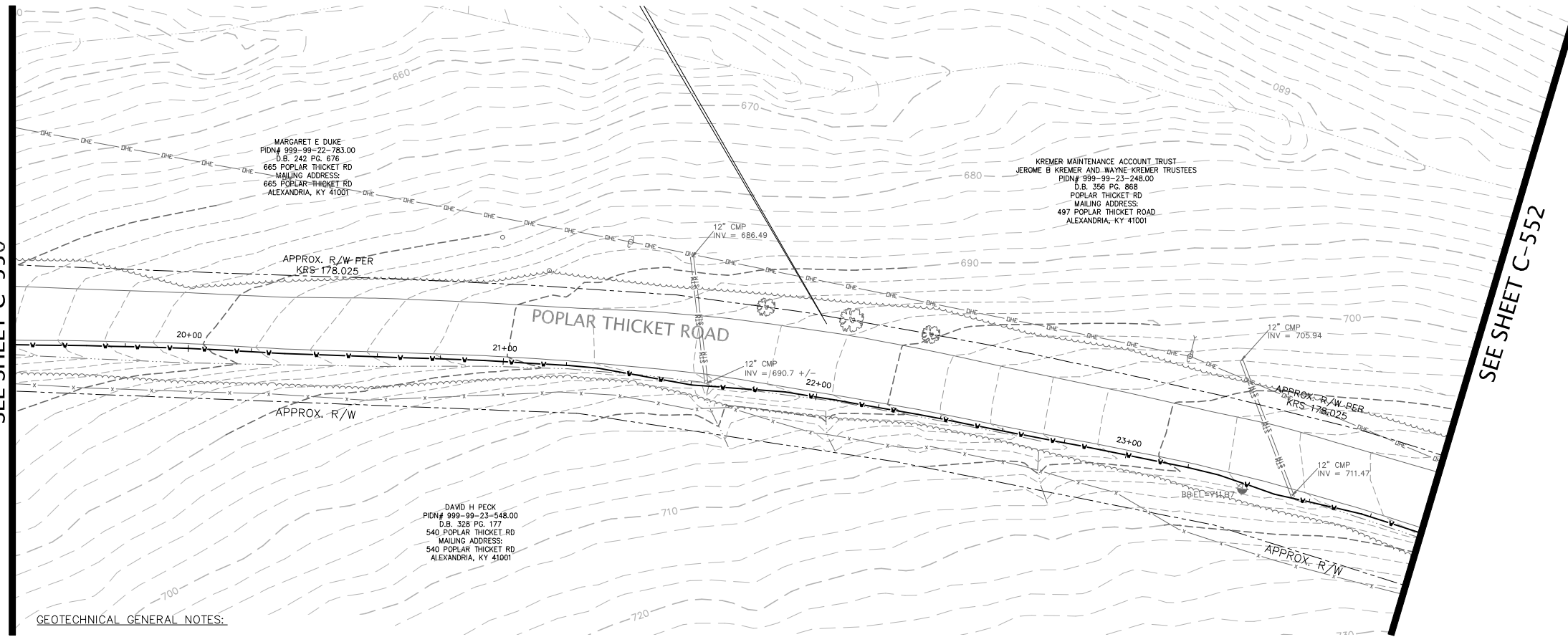
PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE
SHEET
C-550



SEE SHEET C-550

SEE SHEET C-552

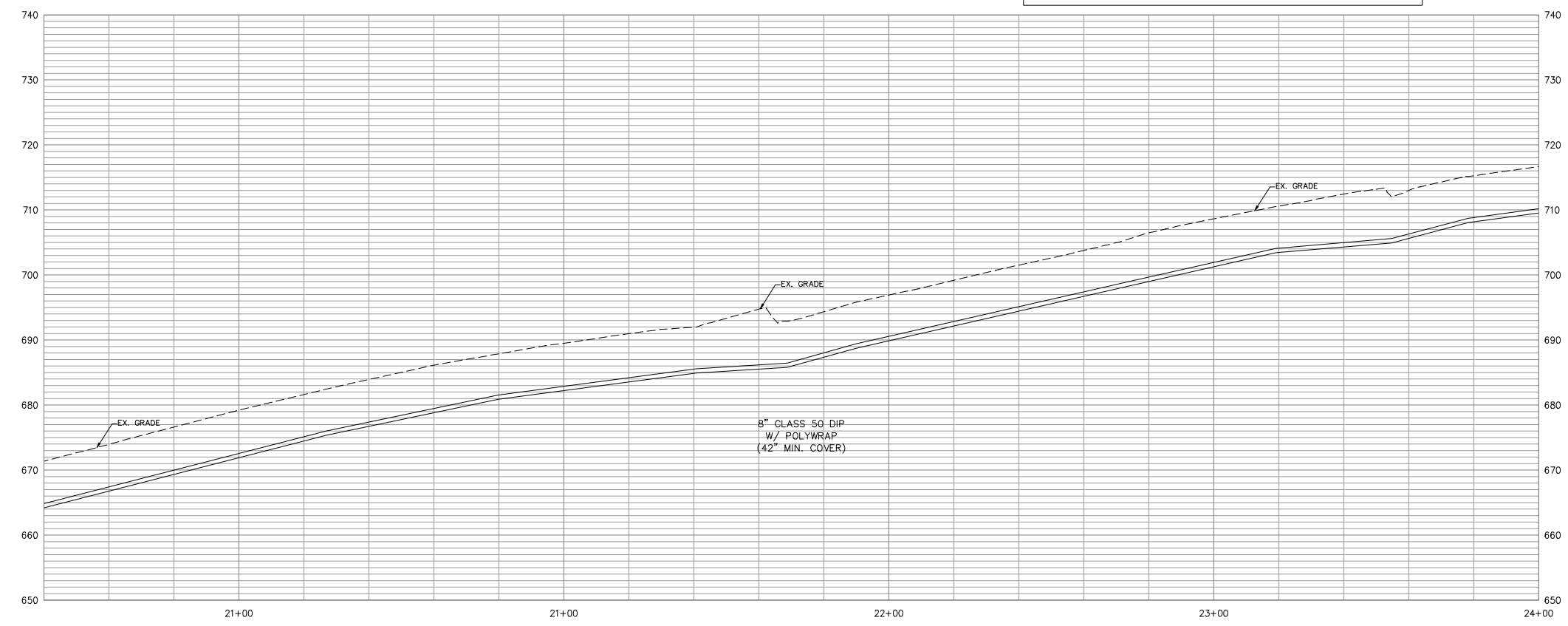


GEOTECHNICAL GENERAL NOTES:

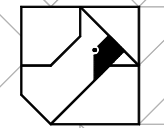
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REVISIONS	DATE	#	ITEM



CARDINAL
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ONE MOOCK ROAD
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PHONE: (502) 581-9600
FAX: (502) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

PROJECT:
WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT:
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

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KCH
CHECKED BY: -
PROJECT MANAGER: KCH

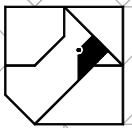
PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE

SHEET
C-551

APPROVED
AUGUST 14, 2023
KENTUCKY TRANSPORTATION CABINET

REVISIONS	DATE	#	ITEM



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LAND SURVEYING
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FAX: (502) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

PROJECT:
WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

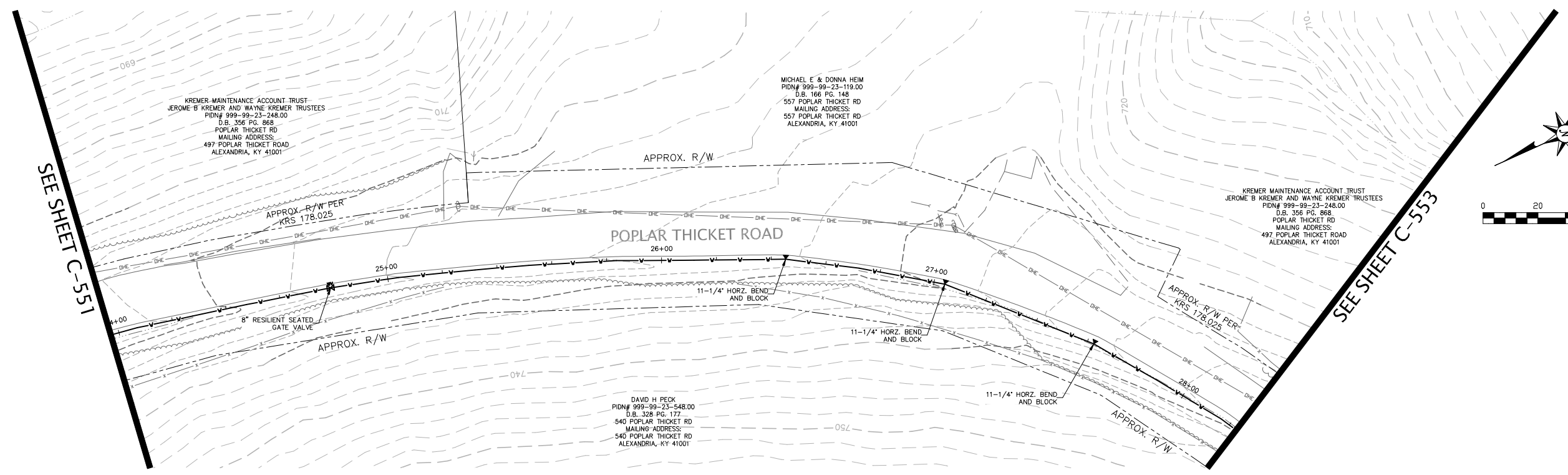
CLIENT:
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

DRAWN BY: SEAL
KCH
CHECKED BY:
KCH
PROJECT MANAGER:
KCH

PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE

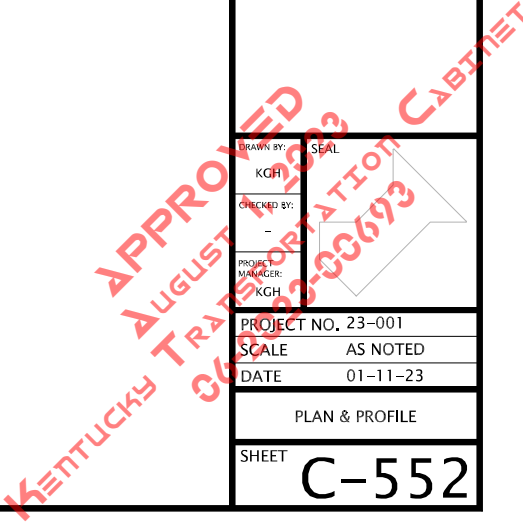
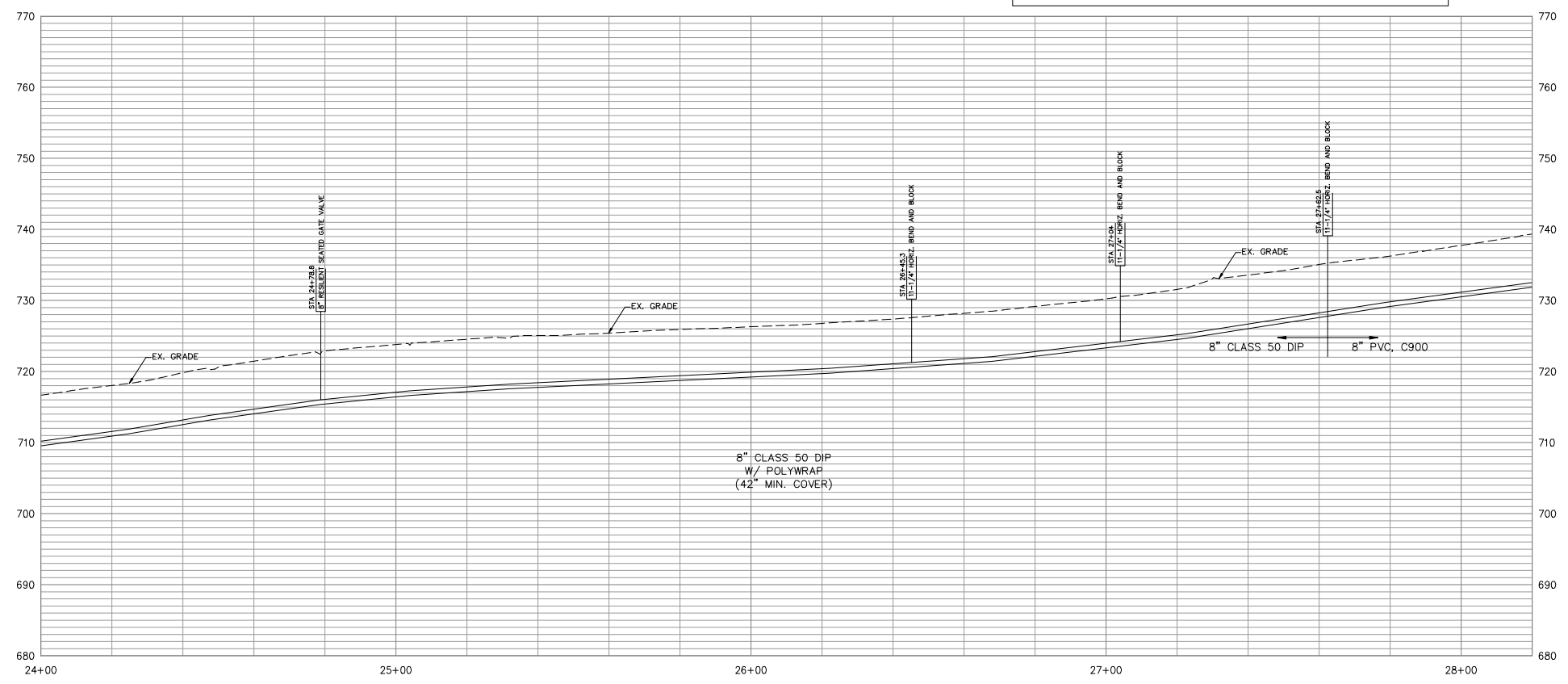
SHEET
C-552



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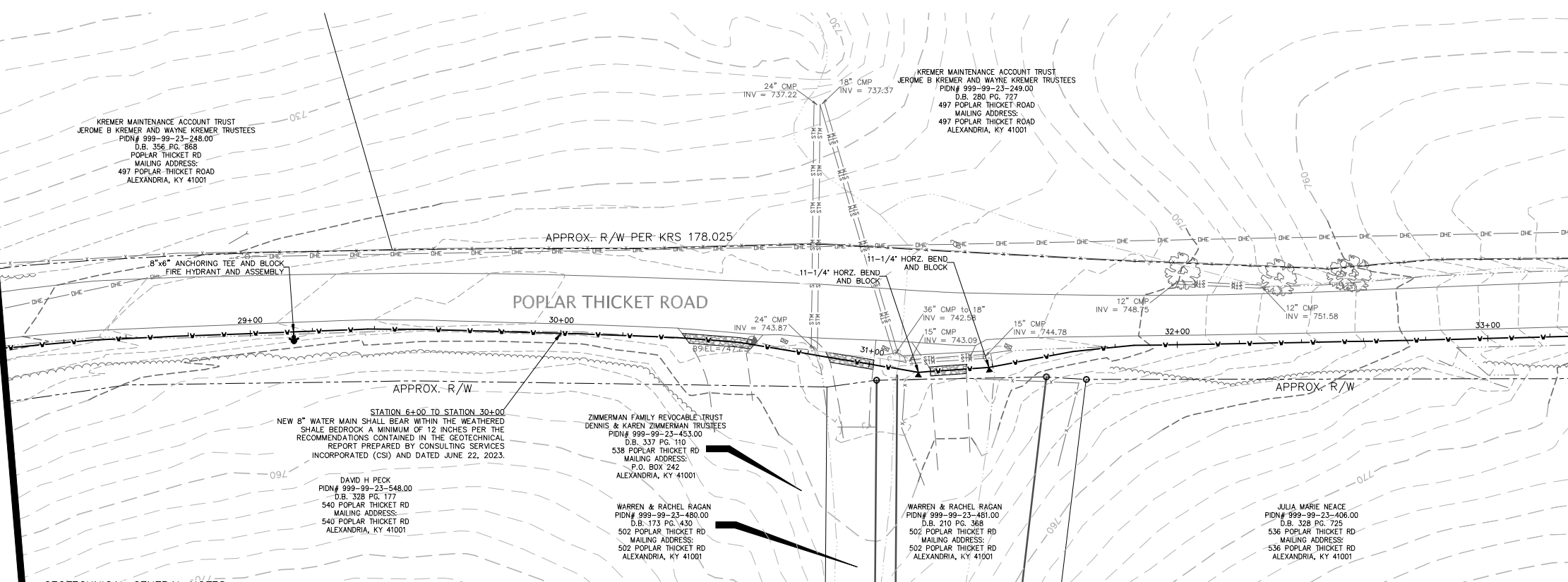
MISC. WATER MAIN CONSTRUCTION NOTE

1. THE COST FOR TESTING THE WATER MAIN, TEMPORARY FLUSHING DEVICES, TEMPORARY PLUGS AND BLOCKS BE INCIDENTAL TO THE PROJECT.



SEE SHEET C-552

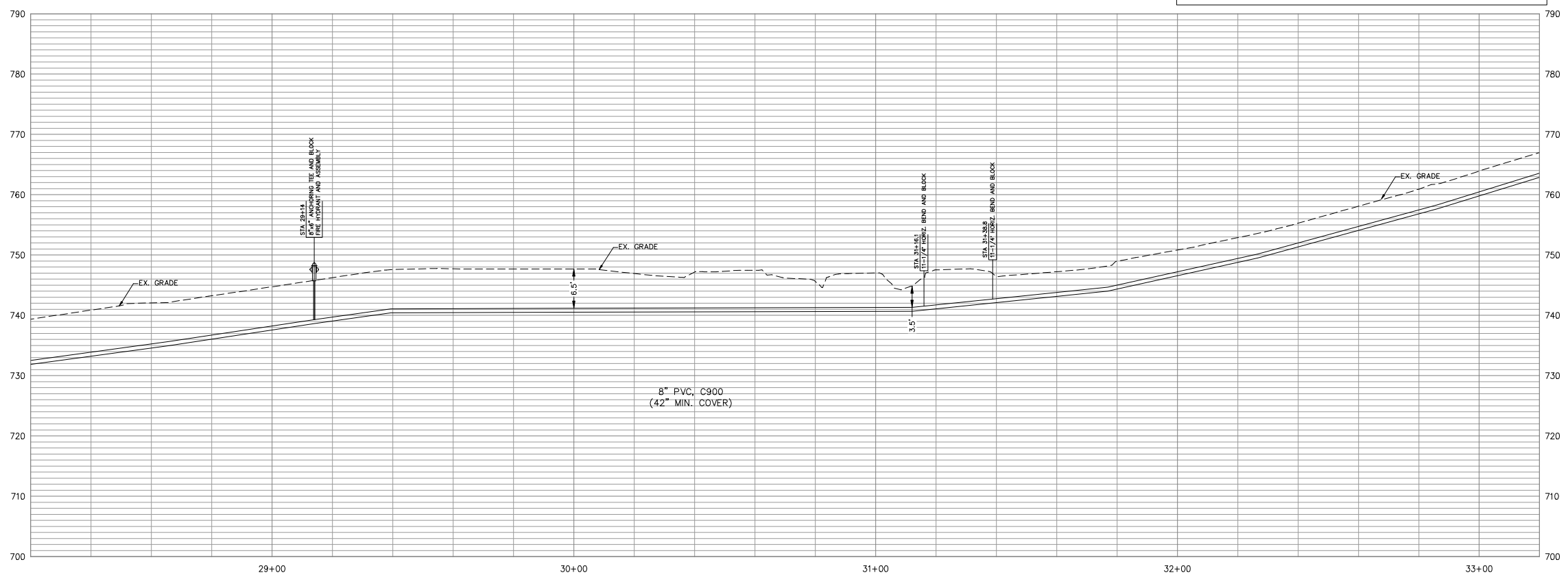
SEE SHEET C-554



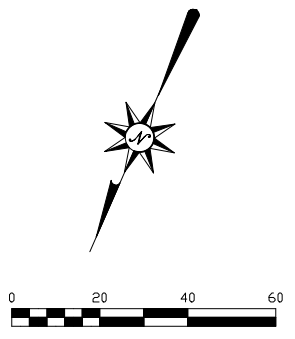
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REVISIONS	DATE	#	ITEM



CARDINAL
 ENGINEERING
 LAND SURVEYING
 ONE MOOCK ROAD
 WILDER, KENTUCKY 41071
 PHONE: (505) 581-9600
 FAX: (505) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

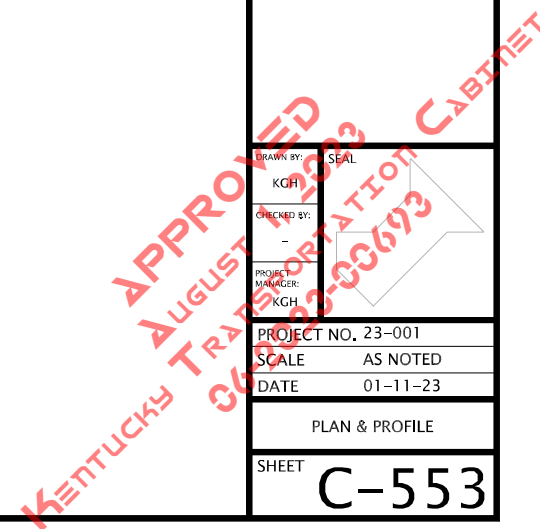
PROJECT:
 WATER MAIN PLAN
 SUB DISTRICT HB WATER MAIN EXTENSION

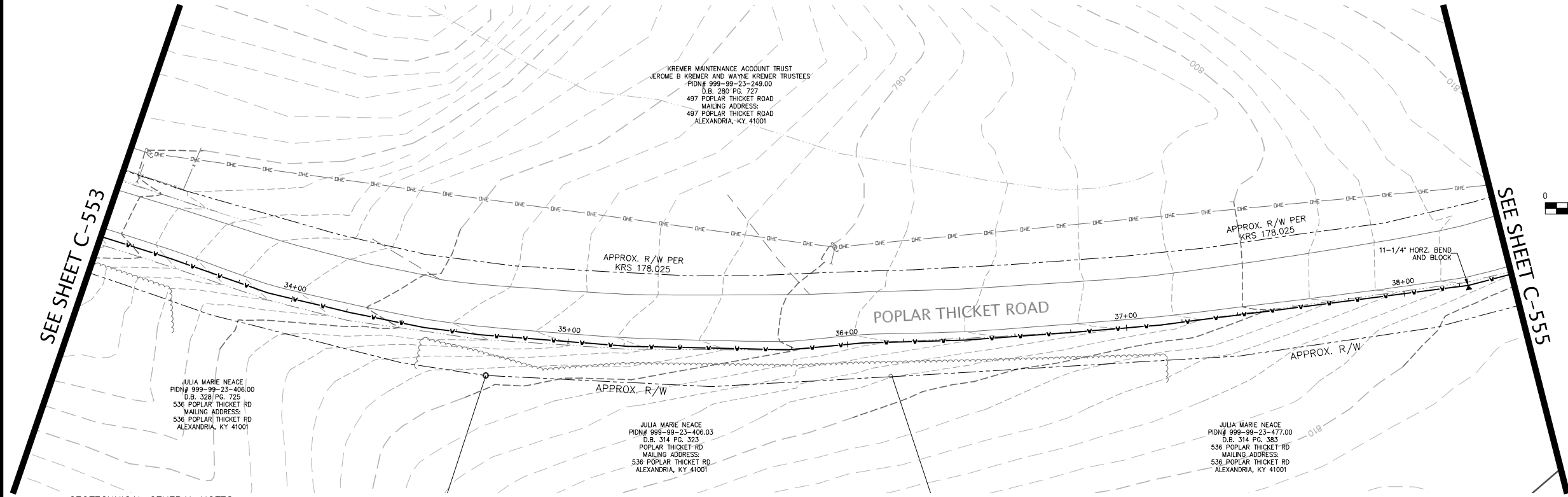
CLIENT:
 NORTHERN KENTUCKY WATER DISTRICT
 2835 CRESCENT SPRINGS ROAD
 P.O. BOX 18640
 ERLANGER, KY 41018-0640

DRAWN BY: SEAL
 KGH
 CHECKED BY: -
 PROJECT MANAGER: KGH
 360-927-0369

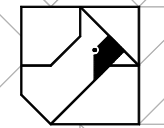
PROJECT NO. 23-001
 SCALE AS NOTED
 DATE 01-11-23

PLAN & PROFILE
 SHEET **C-553**





REVISIONS	DATE	#	ITEM



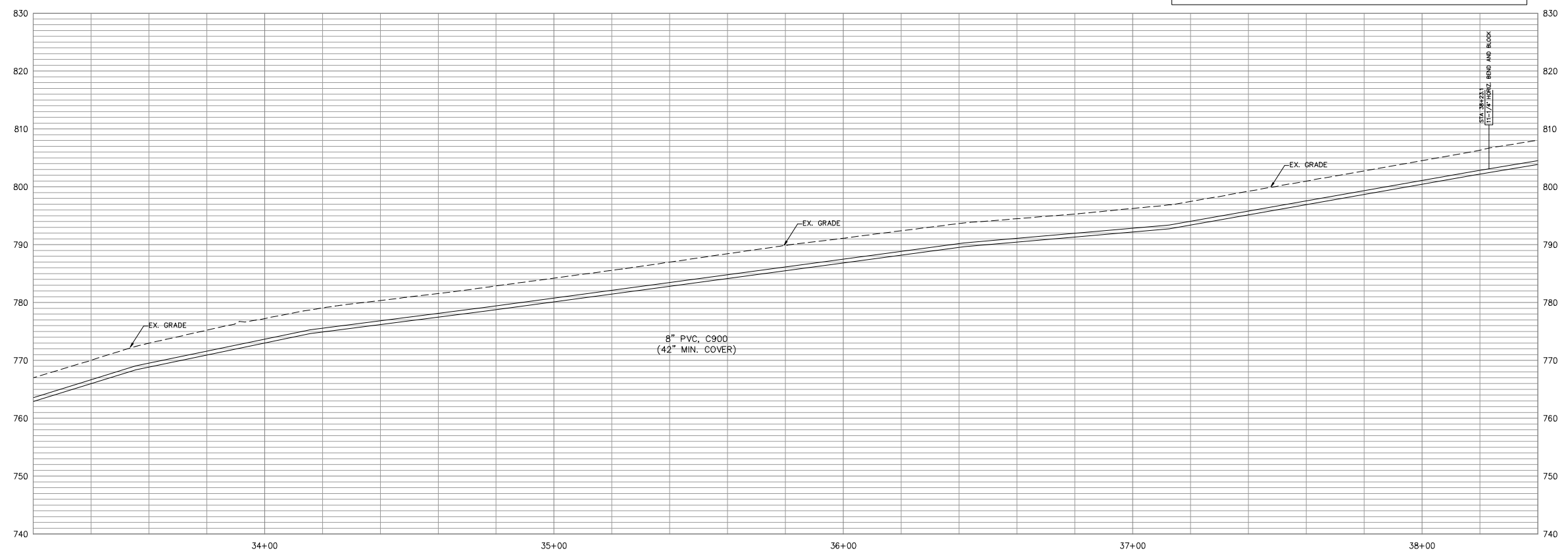
CARDINAL
ENGINEERING
LAND SURVEYING
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
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MISC. WATER MAIN CONSTRUCTION NOTE

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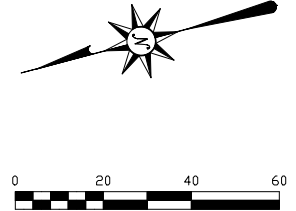
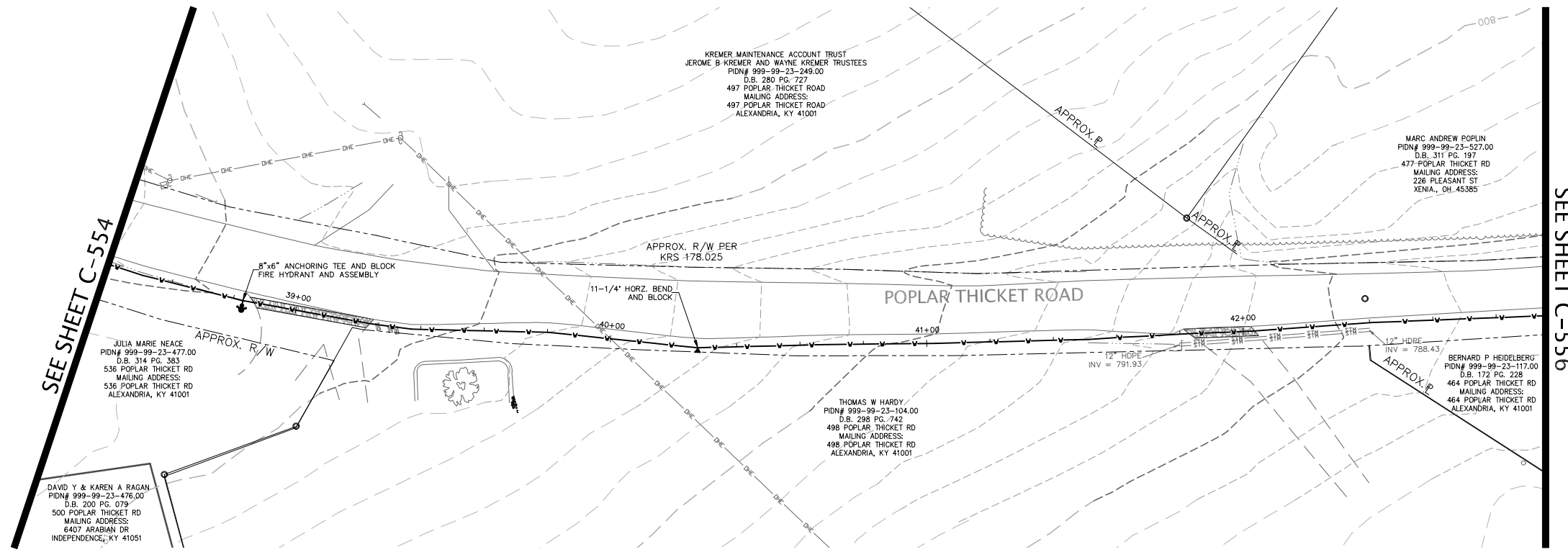


PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

DRAWN BY: KGH	SEAL
CHECKED BY:	
PROJECT MANAGER: KGH	
PROJECT NO. 23-001	
SCALE AS NOTED	
DATE 01-11-23	
PLAN & PROFILE	
SHEET	C-554

APPROVED
AUGUST 15, 2023
KENTUCKY TRANSPORTATION CABINET

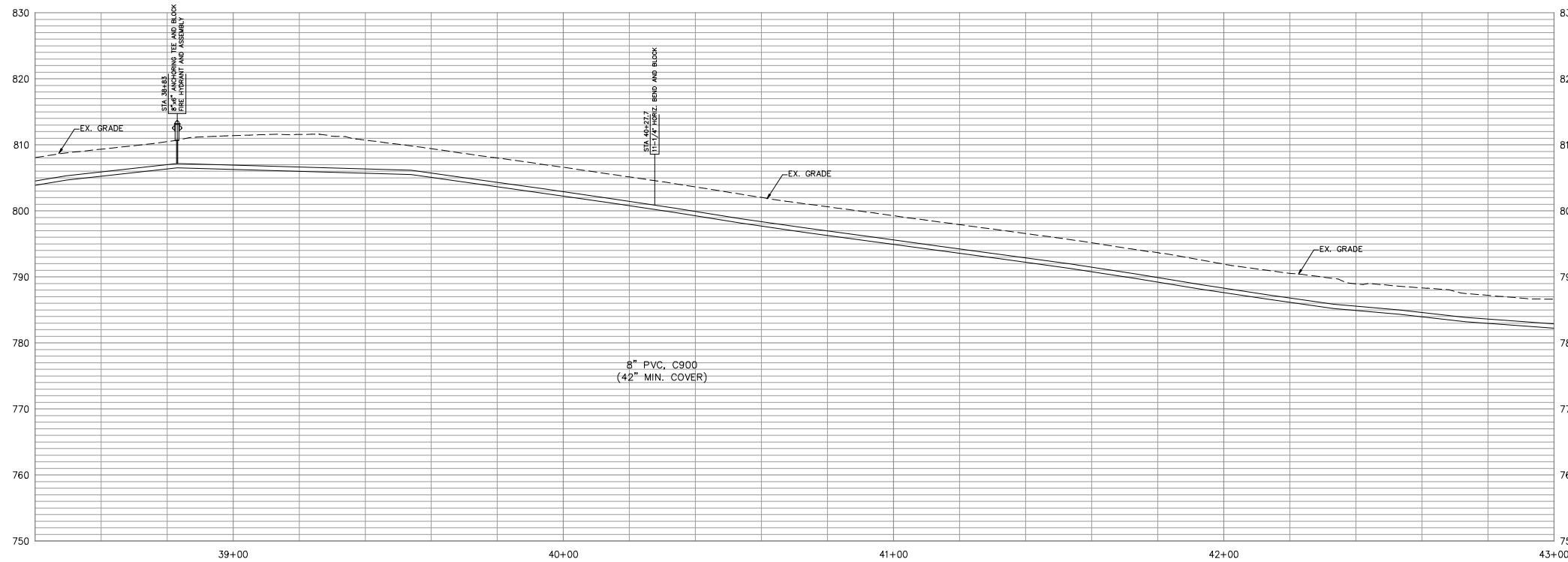


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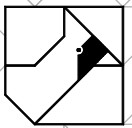
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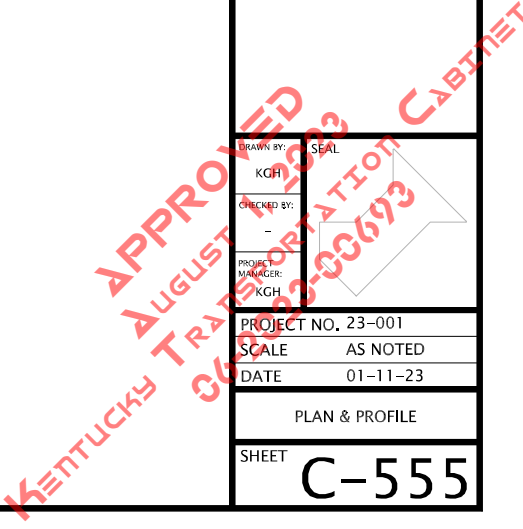
PROJECT:
WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT:
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

DRAWN BY: SEAL
KCH
CHECKED BY: -
PROJECT MANAGER: KCH

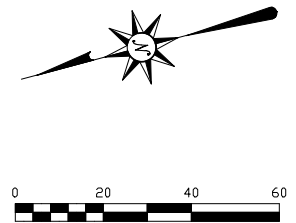
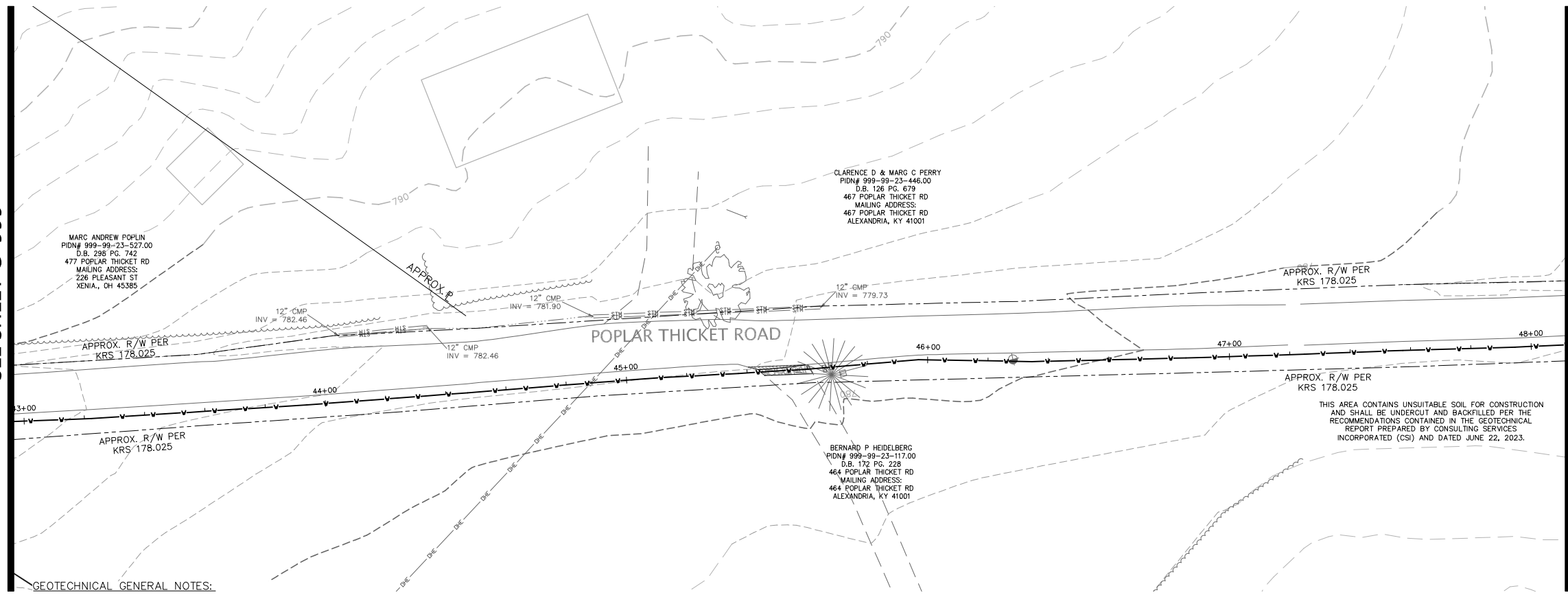
PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE
SHEET **C-555**



SEE SHEET C-555

SEE SHEET C-557

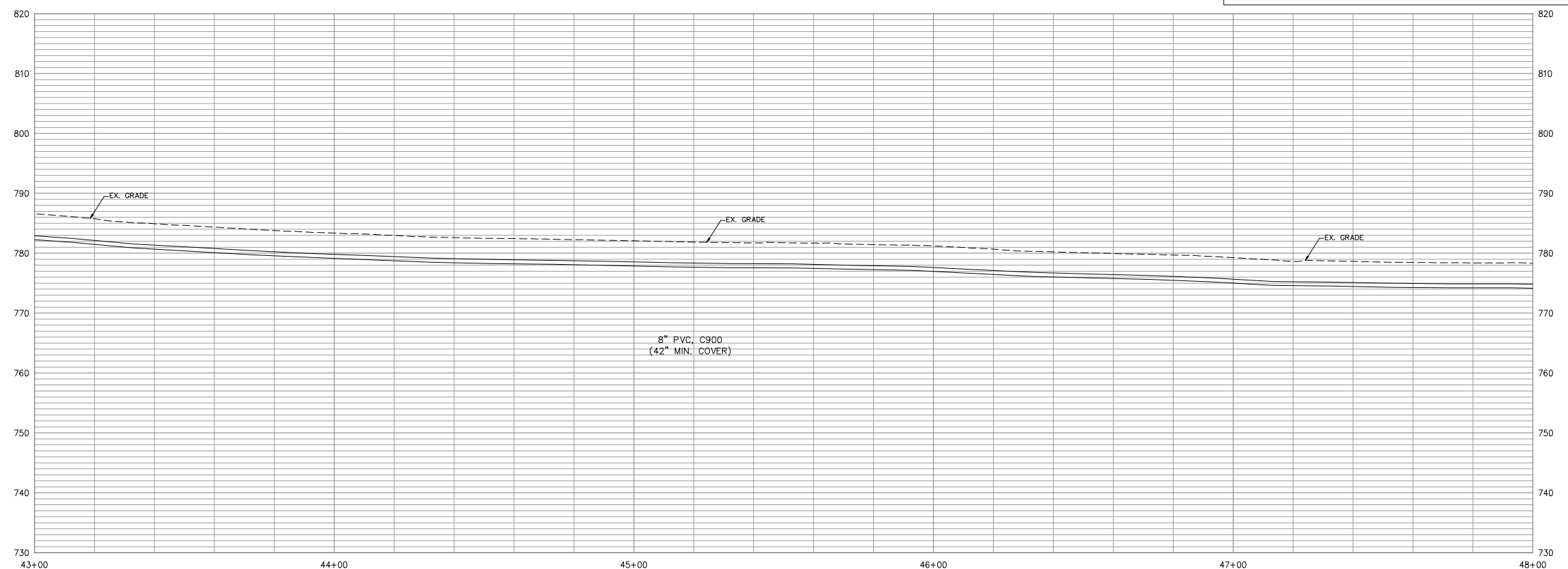


GEOTECHNICAL GENERAL NOTES:

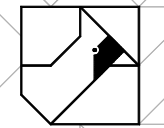
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REVISIONS	DATE	#	ITEM



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LAND SURVEYING
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WILDER, KENTUCKY 41071
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FAX: (502) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

PROJECT:
**WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION**

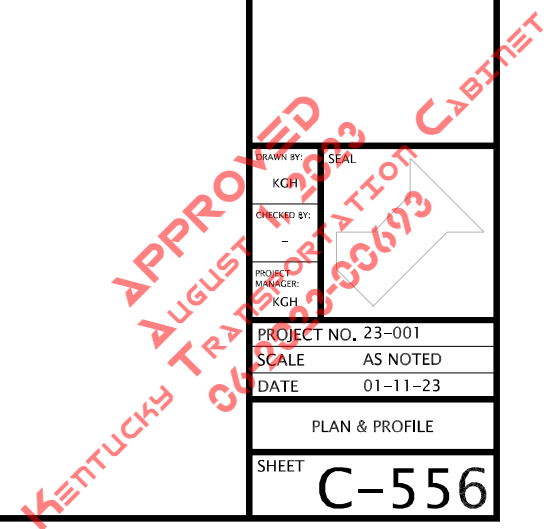
CLIENT:
**NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640**

DRAWN BY: SEAL
KCH
CHECKED BY: -
PROJECT MANAGER: KCH

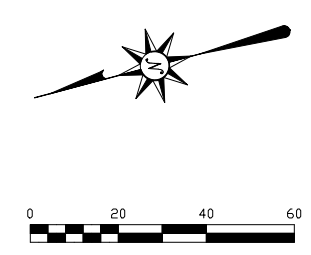
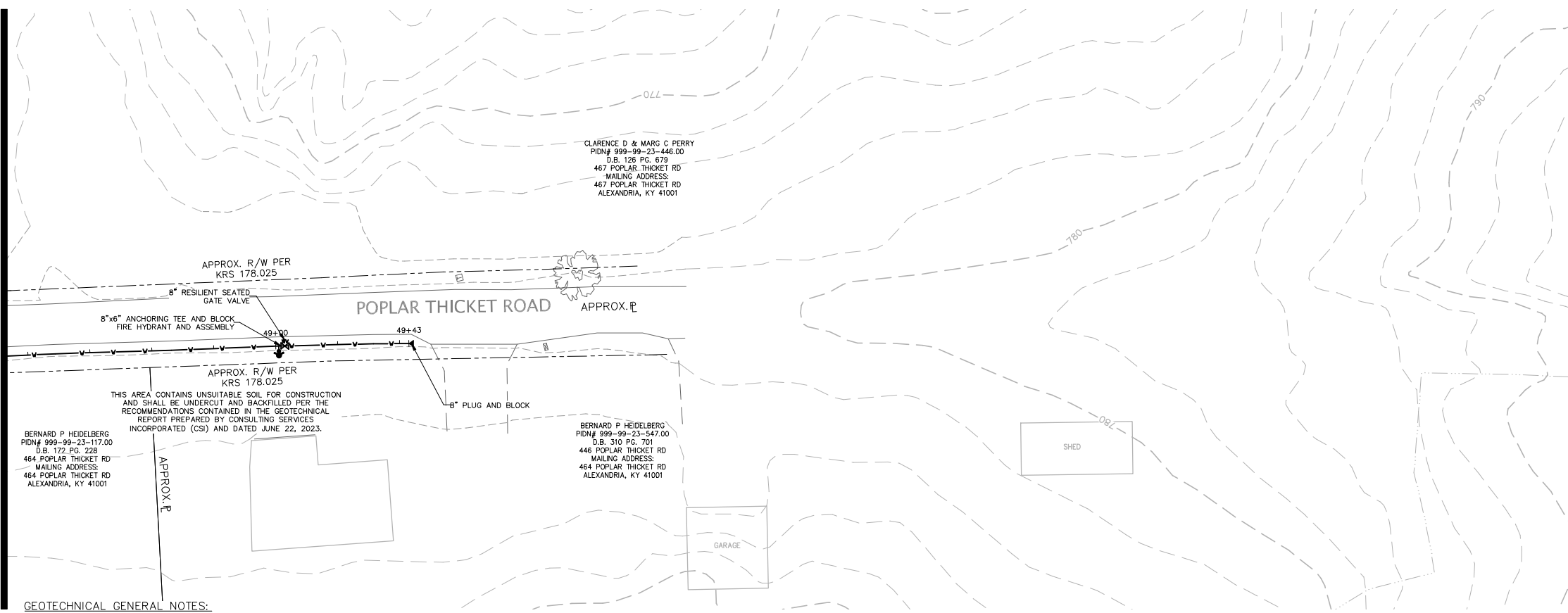
PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE

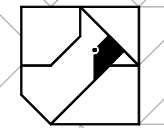
SHEET **C-556**



SEE SHEET C-556



REVISIONS	DATE	#	ITEM



CARDINAL
ENGINEERING
LAND SURVEYING
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE: (505) 581-0600
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WEBSITE: <http://www.cardinalengineering.net>

PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

DRAWN BY: SEAL
KCH

CHECKED BY: -
KCH

PROJECT MANAGER: XCH

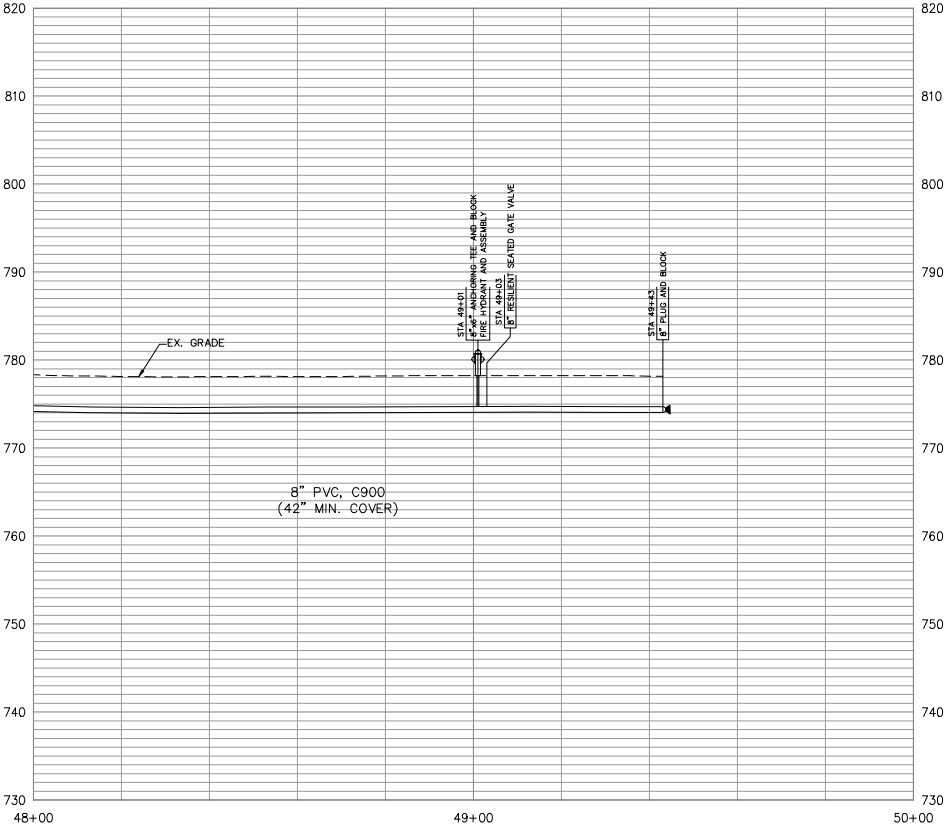
PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE
SHEET **C-557**

- GEOTECHNICAL GENERAL NOTES:**
- FOR ALL EARTHWORK OPERATIONS, POSITIVE SURFACE DRAINAGE IS PRUDENT TO KEEP WATER FROM PONDING ON THE SURFACE AND TO ASSIST IN MAINTAINING SURFACE STABILITY;
 - THE SURFACE SHOULD BE SEALED PRIOR TO EXPECTED WET WEATHER. THIS CAN USUALLY BE ACCOMPLISHED WITH RUBBER-TIRED CONSTRUCTION EQUIPMENT OR A STEEL-DRUM ROLLER;
 - IF ANY SOIL PLACEMENT PROBLEMS OCCUR, CSI SHOULD BE RETAINED TO PROVIDE ADDITIONAL RECOMMENDATIONS, AS NEEDED;
 - CONTRACTOR SHALL REVIEW GEOTECHNICAL REPORT PREPARED BY CONSULTING SERVICES INCORPORATED (CSI), DATED JUNE 22, 2023, PROJECT NO. CN230010, PRIOR TO BIDDING THE PROJECT.

MISC. WATER MAIN CONSTRUCTION NOTE

1. THE COST FOR TESTING THE WATER MAIN, TEMPORARY FLUSHING DEVICES, TEMPORARY PLUGS AND BLOCKS BE INCIDENTAL TO THE PROJECT.



APPROVED
AUGUST 11, 2023
KENTUCKY TRANSPORTATION CABINET
060227006793



**KYTC Division of Maintenance
Permits Branch
District 6**



ENCROACHMENT PERMIT GENERAL NOTES & SPECIFICATIONS

YOU MUST NOTIFY KYTC BEFORE BEGINNING ANY WORK IN THE RIGHT-OF-WAY. Failure to alert KYTC of working within the right of way may result in permit revocation.

Two ways to notify KYTC of your construction start date:

By Email: KYTCD6PERMITS@KY.GOV

**must include permit number and county in subject line*

By Phone: 859-341-2700

**must know permit number and county when calling*

YOU MUST ALSO NOTIFY KYTC UPON COMPLETION OF WORK WITHIN RIGHT-OF-WAY. Failure to alert KYTC of completion of work may result in withholding release of any associated bonds.



APPROVED
AUGUST 1, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00693

I. SAFETY

A. General Provisions

- All signs and control of traffic shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways, latest edition, Part VI, and safety requirements shall comply with the Permits Manual. Federal law requires that traffic control shall be implemented in accordance with MUTCD standards and KYTC's Standard Specifications for Road and Bridge Construction (KYTC SSRBC) under the supervision of a certified Work Zone Traffic Control Supervisor.
- All work necessary in shoulder or ditch line areas of a state highway shall be scheduled to be promptly completed so that hazards adjacent to the traveled way are kept to an absolute minimum.
- No more than one (1) traveled-lane shall be blocked or obstructed during normal working hours. All signs and flaggers during lane closure shall conform to the MUTCD. The traveled-way and shoulders shall be kept clear of mud and other construction debris at all times during construction of the permitted facility. No non-construction equipment or vehicles or office trailers shall be allowed on the right of way during working hours. The right of way shall be left free and clear of equipment, material, and vehicles during non-working hours.
- When necessary to block one (1) traveled-lane of a state highway, the normal working hours shall be as directed by the Department. No lanes shall be blocked or obstructed during adverse weather conditions (rain, snow, fog, etc.) without specific permission from the Department.
- Working hours shall be between 9:00 AM and 3:00 PM. Further date and time restrictions are as follows:

One lane of traffic must be maintained during working hours.

B. Explosives

- No explosive devices or explosive material shall be used within state right of way without proper license and approval of the Kentucky Department of Mines and Minerals, Explosive Division.

C. OSHA

- Kentucky Occupational Safety and Health Standards for the construction industry, which has the effect of law, states in part: (Page 52, 1926.651, Specific Excavation Requirements) "Prior to opening an excavation, effort shall be made to determine whether underground installations, (sewer, telephone, water, fuel, electric lines, etc.) will be encountered, and if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation."

D. Archaeological

- Whenever materials of an archaeological nature are discovered during the course of construction work or maintenance operations, contact shall be made immediately with the Division of Environmental Analysis, which maintains an archaeologist on staff, or with the Office of the State Archaeologist located at the University of Kentucky. Following this consultation, further action shall be decided on a case-by-case basis by the State Highway Engineer or the Transportation Planning Engineer or their designated representative.

E. Environmental

- If the activity to which this permit related disturbs one acre or more of land, you must obtain KPDES KYR10 permit. Information can be found at <http://water.ky.gov/permitting/Pages/GeneralPermits.aspx>

F. Additional Notes

- The following additional notes apply to this permit:

APPROVED
 AUGUST 1, 2023
 KENTUCKY TRANSPORTATION CABINET
 06-2023-00693

II. UTILITIES

- The permittee shall be responsible for any damage to existing utilities. Any utility modifications or relocations within state right of way necessary, as determined by the Department or by the owner of the utility, shall be at the expense of the permittee and subject to the approval of the Department. Operators of underground utilities in right of way shall be members of Kentucky 811.
- All existing manholes and valve boxes shall be adjusted to be flush with finished grade.
- All pavement cuts shall be restored per Kentucky Transportation Cabinet standards and specifications.
- Any excavation within 3' of edge of pavement will require flowable fill as backfill.
- The clear zone requirement shall be met to the extent possible in accordance with the Roadside Design Guide.
- Encasement pipe shall conform to current standards for highway crossings in accordance with the Permits Manual. Pipe encasing shall not be required if the pipe crossing is 2" or less.
- Aerial crossing of utility lines shall have a minimum clearance from the high point of the roadway to the low point of the line of 24' on fully controlled access highways and 18' on non-fully controlled access highways
- Minimum depth for underground Gas and Electric lines is 60" under roadways, ramps, and ditch lines and 42" in all other areas within state right of way. The minimum depth for all other utilities is 42" in all areas.
- When steel plates are installed over an open excavation in the roadway, they must be anchored to the pavement and have asphalt applied to all exposed edges and an MUTCD approved sign noting "Road Plates Ahead." KYTC must be notified of the location, date, time, and permit number associated to BOTH the installation and removal of the plate. Failure to do so may result in permit revocation.
- Utility poles moved for replacement must be removed in their entirety and the hole left behind must be backfilled.
- No poles or anchors shall be installed in a roadside ditch.

Utility notes specific to fully-controlled access highways ONLY:
 All work necessary within the right-of-way shall be performed behind a temporary fence erected prior to the start of work. The temporary woven wire fence shall be removed immediately upon completion of work on the right-of-way, and the control of access immediately restored to original condition, in accordance with applicable KYTC SSRBC. All vents, valves, manholes, etc., shall be located outside of the right-of-way. Encasement pipe shall extend from right-of-way line to right-of-way line and shall be one continuous run of pipe. The encasement pipe shall be welded at all joints. The boring pit and tail ditch shall extend past the existing toe of slope or bottom of ditch line and shall be a minimum of 42 inches deep. Work in interstate right-of-way requires approval from FHWA (Federal Highway Administration).

Additional notes:

APPROVED
 AUGUST 1, 2023
 KENTUCKY TRANSPORTATION CABINET
 06-2023-00693

III. DRAINAGE

- Negative impacts to existing drainage will be the applicant's responsibility to repair in accordance with KYTC SSRBC.
- All pipe shall be laid in a straight alignment, to proper grades, and with all materials and methods of installation including bedding and joint seating. Pipe shall not be covered until inspected by the Department and express permission obtained to make backfill. It is the applicant's responsibility to request inspection.
- All gutter lines at the base of new curbs shall be on continuous grades, and pockets of water along with curbs or in entrance areas or other paved areas within the right-of-way shall not be acceptable.
- All drainage structures and appurtenances (manholes, catch basins, curbing, inlet basins, etc.) shall conform to the Department specifications and shall be constructed in accordance with the KYTC's Standard Drawings.
- Additional notes:

IV. PAVING

- No bituminous pavement shall be installed within the right of way between November 15 and April 1, nor when the temperature is below 40 degrees Fahrenheit, without the express consent of the Department. No bituminous pavement shall be installed when the underlying course is wet.
- Paving within the right of way shall be as follows:
 - Base (Type): **Match Existing**, (Thickness) **Match Existing**
 - Surface Base (Type) **Match Existing**, (Thickness) **Match Existing**
 - Finished Surface (Type) **Match Existing**, (Thickness) **Match Existing**
- All materials and methods of construction, including base and subgrade preparation, shall be in accordance with KYTC's Standard Specifications. At least 24 hours notice to the Department is required prior to beginning paving operations.
 Phone: **859-341-2700** Name: _____
- Utility companies performing road cuts must restore the pavement to pre-existing condition. Pictures/videos are recommended to ensure proper placement of signs and lane markers that are temporarily removed for paving operations. In some cases, a pre-work inventory may be requested from the Department.
- Existing pavement and shoulder material shall be removed to accommodate the above paving specifications.
- The finished surface of all new pavement within the right of way shall be true to the required slope and grade, uniform in density and texture, free of irregularities, and equivalent in riding qualities to the adjacent highway pavement or as determined by KYTC.
- To ensure proper surface drainage, the new pavement shall be flush with the edge of existing highway pavement and shall slope away from the existing edge of the pavement as specified in drawings.
- Existing edge of pavement shall be saw-cut to provide a straight and uniform joint for new pavement, and an edge key will be installed in the overlap. An approved joint sealer, in accordance with Kentucky Department of Highways Standard Specifications (latest edition), shall be applied between new and existing pavements.
- Additional notes:

APPROVED
 AUGUST 1, 2023
 KENTUCKY TRANSPORTATION CABINET
 06-2023-00693

V. ENTRANCES

- Encroachment permits issued by KYTC in no way supersede local planning/zoning requirements or subdivision regulations. KYTC has no authority with zoning changes.
- Commercial entrances must be paved to the right-of-way line. Any deviations must be approved by KYTC before installation.
- KYTC can dictate drainage improvement installation during construction or after entrance is at final grade. The permit release does not release the permit applicant from drainage maintenance.
- Signs (ground-mounted and span-mounted), stop bars, crosswalk, and proper lane markings must be in-place before entrance is open for traffic. Lane width modifications must be approved by the Department.
- Guardrail installation must be pre-approved by the Department and installed by a KYTC pre-qualified contractor. Any guardrail that is removed during construction must be returned to the local KYTC maintenance facility.

Additional notes:

VI. TRAFFIC

- Any contractor performing work within the vicinity of KYTC roadway lighting or traffic signals, must request locates from the KYTC District 6 Traffic section at least one week before of starting work in the right-of-way.
- Applicant must maintain all KYTC Roadway signage that is impacted by the permitted work. In the event that any signs have to be moved, it is the applicant's responsibility to mark the sign's location before removal and to install the original or new sign per KYTC standards for sign installation.
- Any thermoplastic or striping damaged during the encroachment must be restored in a timely manner per KYTC standards. Stopbars, arrows, and crosswalks must be thermoplastic material, paint is not acceptable. This work must be performed by a KYTC pre-qualified contractor.
- Excavating near a signal, lighting pole, or anchoring facility must be done so that it does not impact the structural integrity of the pole. Any work that requires a temporary support or anchoring must receive prior approval.
- If the scope of the permit involves a signal build or rebuild, it is the applicant's responsibility to apply for power service (and pay monthly electrical bill) as well as request electrical inspection from the KYTC District 6 Traffic section. If the signal modifications require timing or phasing changes this must be requested at least two weeks in advance of the signal's turn-on date. KYTC will not take ownership of permitted signals until the electrical inspection is formally accepted and approved.
- Work which impacts traffic loops requires 48-hour notice to the KYTC District 6 Traffic section at 859-341-2700. Accidental damage of a traffic loop must be reported immediately to KYTC District 6's emergency line at 859-620-2738. Any disturbed traffic loops must be replaced in a timely manner. Traffic loops out of operation for more than five working days will subject the applicant to the cancellation of the permit. Loop repair must be performed by a KYTC pre-qualified contractor.

Additional Notes:

APPROVED
AUGUST 1, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00693

VII. SIDEWALK SPECIFICATIONS

All sidewalk modifications, retrofitting, or installations must meet current ADA guidelines

A. New Sidewalks

New sidewalk specifications, dimensions, and designs shall be in accordance with KYTC's latest edition of the Standard Specifications, or with the plans provided on the permit if approved by a KYTC D6 Construction or Permits Engineer.

All materials and methods of construction, including curing, shall be in accordance with KYTC's latest edition of the Standard Specifications.

B. Existing Sidewalks

Use of the sidewalk shall not be blocked or obstructed and a usable walkway shall be maintained across the construction area at all times per MUTCD . Sidewalk closures must be approved by the Department before implementation.

The location of ADA ramps (truncated domes/tactile warnings/etc.) will need to be field verified by KYTC before installation.

Any section of sidewalk that becomes damaged shall be entirely replaced to match existing sections.

Additional notes:

VIII. RIGHT OF WAY RESTORATION

All disturbed portions of the right of way shall be restored to grass as per Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition). A satisfactory turf, as determined by the Department, shall be established by the permittee prior to release of indemnity. Sodding or seeding shall be as follows:

Slopes 3:1 or Less: 90% Kentucky 31 Tall Fescue and 10% White Dutch Clover at 100 lbs/acre

Slopes Greater than 3:1: 90% Kentucky 31 Tall Fescue and 10% Partridge Pea at 100 lbs/acre

Urban or Residential Areas: 95% Turf Type Fall Fescue Blend and 5% White Dutch Clover at 275 lbs/acre

Two tons of clean straw mulch per acre of seeding.

Prior to seeding, the ground shall be prepared in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

Substitutes for sod such as artificial turf, rocked mulch, or paved areas may be acceptable if they are aesthetically pleasing and receive prior approval from KYTC.

All ditch-flow lines and all ditch-side slopes shall be sodded.

Existing concrete right of way markers shall not be disturbed. If damaged in any way, they shall be entirely replaced by the permittee with new concrete markers to match the original markers, in accordance with Kentucky Department of Highways Standard Drawings. Markers that are entirely removed shall be re-established in the proper locations by the permittee and to the satisfaction of the Department.

Additional notes:

APPROVED
 AUGUST 14, 2023
 KENTUCKY TRANSPORTATION CABINET
 06-2023-00693

IX. RIGHT OF WAY FENCE RESTORATION

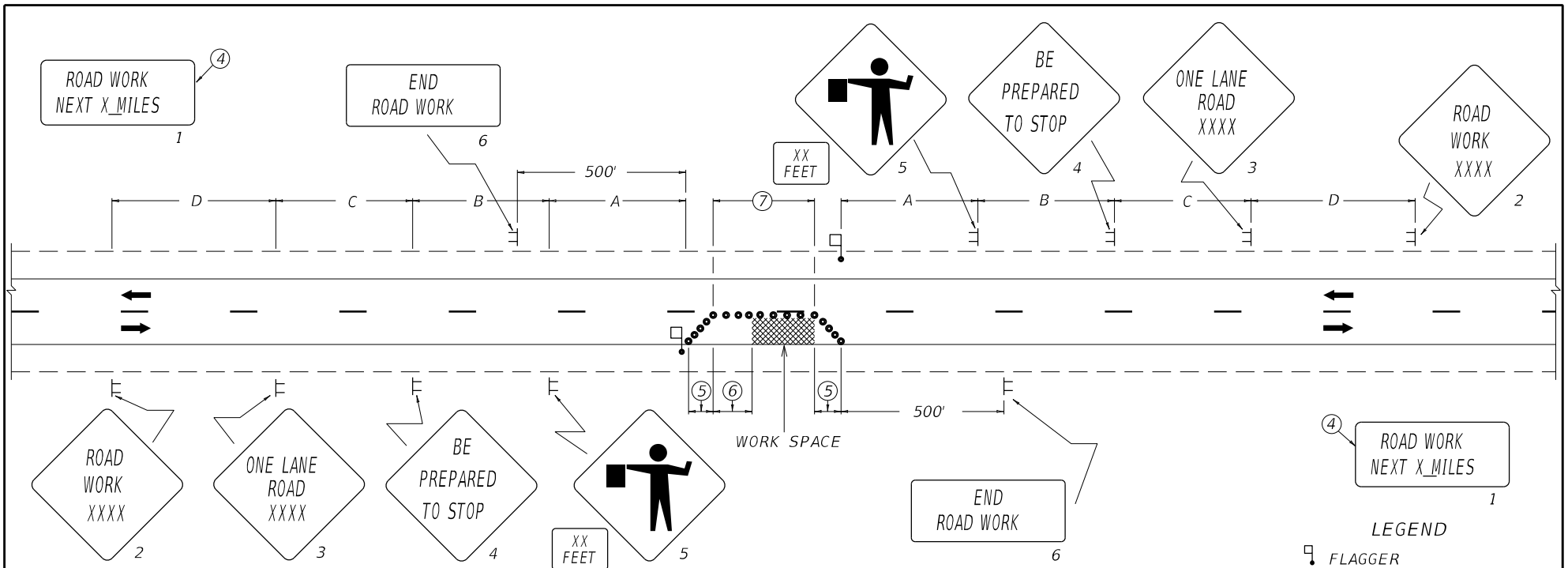
- The replacement fence shall be a height of at least 48 inches and shall be of sufficient density to protect against encroachment.
- The replacement fence shall be a minimum of 1 foot and a maximum of 2 feet outside the right-of-way line
- The fence materials and design shall meet accepted industry standards and be treated as paintable. Durable finish materials such as vinyl are acceptable.
- The permittee shall be required to construct and maintain the replacement fencing to an acceptable level of functionality and state of repair. All work on the fencing shall be performed by access from the private property. Access from the roadway is not allowed.
- The existing fence shall be removed by permittee and stored at the Department's maintenance storage yard for future reuse by the Department, or the Department shall be reimbursed the cost of fencing removed.
- Right of way monuments shall be installed regardless of if replacement fence is installed or not.
- The control of access shall not be diminished as a result of replacement of the fence.
- Additional notes:

X. MISCELLANEOUS NOTES

NOTICE TO PERMITTEE

THE PERMITTEE AGREES THAT ALL WORK WITHIN THE EXISTING RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH THE CURRENT KYTC STANDARD SPECIFICATIONS AND THE PLANS AS APPROVED AND PERMITTED BY AN ENCROACHMENT PERMIT. ANY CHANGES OR VARIANCES MADE AT THE TIME OF CONSTRUCTION WITHOUT WRITTEN APPROVAL FROM THE DEPARTMENT OF HIGHWAYS SHALL BE REMOVED BY THE PERMITTEE AT NO EXPENSE TO THE DEPARTMENT OF HIGHWAYS AND SHALL BE REDONE BY THE PERMITTEE TO CONFORM WITH THE APPROVED PLANS.

APPROVED
T06-2023-00693
KENTUCKY TRANSPORTATION CABINET



~ NOTES ~

1. THE SIZE OF SIGNS 2 THRU 5 SHALL BE 48" X 48" WITH 30" X 24" SUPPLEMENTAL PLAQUES FOR EXPRESSWAYS/FREEWAYS. THE MINIMUM SIZE OF SIGNS 2 THRU 5 SHALL BE 36" X 36" WITH 24" X 18" SUPPLEMENTAL PLAQUES FOR OTHER ROADWAYS. SIGN NOS. 1 AND 6 SHALL BE 48" X 24" FOR EXPRESSWAYS/FREEWAYS AND 36" X 18" FOR OTHER ROADWAYS. A FREEWAY IS DEFINED AS A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS. AN EXPRESSWAY IS DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
2. THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. FLAGGER STATIONS SHALL BE LOCATED FAR ENOUGH IN ADVANCE OF THE ACTIVITY AREA SO THAT APPROACHING ROAD USERS WILL HAVE SUFFICIENT DISTANCE TO STOP BEFORE ENTERING THE WORK SPACE. ILLUMINATION SHALL BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT.
3. DRUMS SHALL BE USED IN LIEU OF CONES IF CLOSURE EXTENDS INTO NIGHTTIME HOURS. GRABBER CONES MAY BE USED IN LIEU OF DRUMS IF THE USE OF DRUMS WOULD RESULT IN LANES THAT ARE TOO NARROW OR AN UNACCEPTABLE SITUATION BASED ON ENGINEERING JUDGMENT.
- ④ SIGN NO. 1 SHOULD BE INSTALLED AT THE LIMITS OF THE PROJECT WHEN THE CONSTRUCTION ZONE IS LONGER THAN TWO MILES IN LENGTH. THE DISTANCE SHOWN SHALL BE STATED TO THE NEAREST WHOLE MILE.
- ⑤ TAPERS SHALL BE 50' (MIN) TO 100' (MAX) IN LENGTH. SPACING OF CHANNELIZING DEVICES SHOULD BE 20' THRU THE TAPER AREAS.
- ⑥ BUFFER SPACE (OPTIONAL). IF USED, THE BUFFER SPACE SHOULD BE EXTENDED SO THAT THE TWO-WAY TRAFFIC TAPER IS PLACED BEFORE A HORIZONTAL OR CREST VERTICAL CURVE TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGER AND A QUEUE OF STOPPED VEHICLES. REFER TO TABLE 6C-2 OF THE MUTCD FOR GUIDANCE ON BUFFER SPACE LENGTH.
- ⑦ SPACING OF CHANNELIZING DEVICES THRU THE ACTIVITY AREA SHOULD BE 80'. ON ROADWAYS WITH WIDTHS LESS THAN 20 FEET, CHANNELIZING DEVICES MAY BE OMITTED THRU THE ACTIVITY AREA BASED ON ENGINEERING JUDGMENT.

- LEGEND
- FLAGGER
 - ▬ SIGN
 - CHANNELIZING DEVICES
CONES
DRUMS

BID ITEMS AND UNIT TO BID
 LANE CLOSURE EACH
 REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

SIGNING AND SPACING TABLE				
ROAD TYPE	A	B	C	D
EXPRESSWAY/ FREEWAY	1000'	500'	1100'	2600'
SP. LT. ≥ 45 MPH*	500'	500'	500'	1100'
SP. LT. ≤ 40 MPH*	250'	250'	250'	250'

*NOTE: USE NORMAL POSTED SPEED LIMIT

APPROVED
 August 1, 2023
 KENTUCKY TRANSPORTATION CABINET
 06-2023-00493

DRAWING NOT TO SCALE

KENTUCKY
 DEPARTMENT OF HIGHWAYS

LANE CLOSURE
 TWO-LANE HIGHWAY

STANDARD DRAWING NO. TTC-100-05	
SUBMITTED BY: <i>B. Allen Wolfe</i>	DATE: 02-26-20
DIRECTOR OF TRANSPORTATION OPERATIONS	DATE: 02-26-20
APPROVED BY: <i>[Signature]</i>	DATE: 02-26-20
ENGINEER	DATE:

NOTICE OF COMPLETION OF ENCROACHMENT PERMIT WORK

PERMITTEE

Name: Northern Kentucky Water District
Contact Person:
Address: 2835 Crescent Springs Road
City: Erlanger
State: Kentucky
Zip: 41018
Telephone:

PROJECT IDENTIFICATION

Permit Number: 06-2023-00812

I wish to notify the Department of Highways that the above mentioned permit work and any necessary right-of-way restoration have been completed and are ready for final inspection.

Permittee

Please return this form to the address below when work is completed and ready for final inspection.

Please Return to: Permit Engineer
Department of Highways, District 6 Office
421 Buttermilk Pike
Covington, Kentucky 41017
(859) 341-2700
www.transportation.ky.gov/

LOCATION(S)			
Description	County - Route	Latitude	Longitude
Install 8" ductile iron water main in ditchline north of KY 1566.	Campbell - KY 8	38.973540	-84.303475
Install 8" ductile iron water main in ditchline north of KY 1566.	Campbell - KY 1566	38.960764	-84.324409

APPROVED
SEPTEMBER 6, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00812



Andy Beshear
Governor

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Department of Highways, District 6 Office
421 Buttermilk Pike
Covington, Kentucky 41017
(859) 341-2700
www.transportation.ky.gov/

Jim Gray
Secretary

September 6, 2023

Northern Kentucky Water District
2835 Crescent Springs Road
Erlanger, Kentucky 41018

Subject: Permit #: 06-2023-00812
Permit Type: Utilities - Water
Approval

Dear Applicant:

Attached is your permit approval and documentation for the subject permit.

Be advised that all work must be done in conformity with permit and application conditions. If you have any questions, please contact the Permits Section at this office.

Sincerely,

A handwritten signature in cursive script that reads "Linzy Brefeld".

Linzy Brefeld
D6 Permits Supervisor

Attachments



An Equal Opportunity Employer M/F/D

APPROVED
SEPTEMBER 6, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00812



ENCROACHMENT PERMIT

KYTC KEPT #: 06-2023-00812

Permittee: Northern Kentucky Water District

Permit Type / Subtype: Utilities / Water

Work Completion Date: 8/30/2024

INDEMNITIES		
Type	Amount Required	Tracking Number
Performance Bond	\$0.00	
Cash / Check	\$0.00	
Self-Insured	\$0.00	
Payment Bond	\$0.00	
Liability Insurance	\$0.00	

This permit has been: **APPROVED** **DENIED**

Linzy Brefeld D6 Permits Supervisor 9/6/2023

SIGNATURE TITLE DATE

The TC 99-1(B), including the application TC-99 1(A) and all related and accompanying documents and drawings make up the permit. It is not a permit unless both the TC 99-1(A) and TC 99-1(B) are both present.

LOCATION(S)			
Description	County - Route	Latitude	Longitude
Install 8" ductile iron water main in ditchline north of KY 1566.	Campbell - KY 8	38.973540	-84.303475
Install 8" ductile iron water main in ditchline north of KY 1566.	Campbell - KY 1566	38.960764	-84.324409

APPROVED
 SEPTEMBER 6, 2023
 KENTUCKY TRANSPORTATION CABINET
 06-2023-00812



To Submit a Locate Request
 24 Hours a Day, Seven Days a Week:
 Call 811 or 800-752-6007



APPLICATION FOR ENCROACHMENT PERMIT

KYTC KEPT #: T06-2023-00812

SECTION 1: APPLICANT CONTACT INFORMATION

APPLICANT Northern Kentucky Water District	ADDRESS 2835 Crescent Springs Pike		
EMAIL	CITY Erlanger	STATE KY	ZIP 41018
CONTACT NAME 1 Kyle Ryan, PE	EMAIL KRyan@nkywater.org	PHONE # 859-426-2713	CELL #
		CONTACT NAME 2 (if applicable) Matt Bogen, PE	EMAIL mbogen@cardinalengineering.net
		PHONE # 859-392-3673	CELL #

SECTION 2: PROPOSED WORK LOCATION

ADDRESS Washington Trace to KY 8	CITY Unincorporated	STATE Kentucky	ZIP 41001
COUNTY Campbell	ROUTE # KY 1566	MILE POINT 0.33-1.81	LONGITUDE (X) -84.324402
			LATITUDE (Y) 38.960799

ADDITIONAL LOCATION INFORMATION:

FOR KYTC USE ONLY

PERMIT TYPE: Air Right Entrance Utilities Vegetation Removal Other: _____

ACCESS: Full Partial by Permit **LOCATION:** Left Right Crossing

SECTION 3: GENERAL DESCRIPTION OF WORK

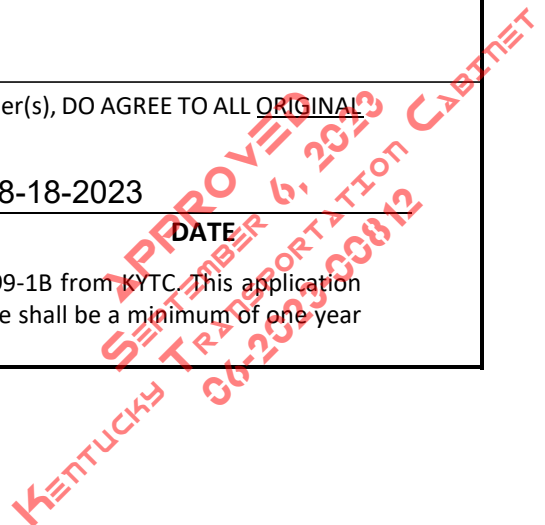
Install 8" ductile iron water main in ditchline north of KY 1566. No open cut of roadway will be required.

THE UNDERSIGNED APPLICANT(s), being duly authorized representative(s) or owner(s), DO AGREE TO ALL ORIGINAL UNEDITED TERMS AND CONDITIONS ON THE TC 99-1A, pages 1-4.

Steve Broering
 SIGNATURE

8-18-2023
 DATE

This is not a permit unless and until the applicant(s) receives an approved TC 99-1B from KYTC. This application shall become void if not approved by the cancellation date. The cancellation date shall be a minimum of one year from the date the applicant submits their application.





APPLICATION FOR ENCROACHMENT PERMIT

TERMS AND CONDITIONS

1. The permit, including this application and all related and accompanying documents and drawings making up the permit, remains in effect and is binding upon the Applicant/Permittee, its successors and assigns, as long as the encroachment(s) exists and also until the permittee is finally relieved by the Department of Highways from all its obligations.
2. Applicant shall meet all requirements of the Clean Water Act if the project will disturb one acre or more, the applicant shall obtain a KPDES KYR10 Permit from the Kentucky Division of Water. All disturbed areas shall meet the requirements of the Department of Highway's Standard Specifications, Sections 212 and 213, as amended.
3. **INDEMNITY:**
 - A. **PERFORMANCE BOND:** The permittee shall provide to the Department a performance bond according to the Permits Manual, Section PE-203 as a guarantee of conformance with the Department's Encroachment Permit requirements.
 - B. **PAYMENT BOND:** At the discretion of the department, a payment bond shall be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
 - C. **LIABILITY INSURANCE:** Liability insurance shall be required of the permittee (in an amount approved by the department) to cover all liabilities associated with the encroachment.
 - D. It shall be the responsibility of the permittee, its successors and assigns, to maintain all indemnities in full force and effect until the permittee is authorized to release the indemnity by the Department.
4. A copy of this application and all related documents making up the approved permit shall be given to the applicant and shall be made readily available for review at the work site at all times.
5. Perpetual maintenance of the encroachment is the responsibility of the permittee, its successors and assigns, with the approval of the Department as required, unless otherwise stated.
6. Permittee, its successors and assigns, shall comply with and agree to be bound by the requirements and terms of (a) this application and all related documents making up the approved permit, (b) by the Department's Permits Manual, and (c) by the Manual on Uniform Traffic Control Devices, both manuals as revised to and in effect on the date of issuance of the permit, all of which documents are made a part thereof by this reference. Compliance by the permittee, its successors and assigns, with subsequent revisions to applicable provisions of either manual or other policy of the Department may be made a condition of allowing the encroachment to persist under the permit.
7. Permittee agrees that this and any encroachment may be ordered removed by the Department at any time, and for any reason, upon thirty days written notice to the last known address of the applicant or to the address at the location of the encroachment. The permittee agrees that the cost of removing and of restoring the associated right-of-way is the responsibility of the permittee, its successors and assigns.
8. Permittee, its successors and assigns, agree that if the Department determines that motor vehicular safety deficiencies develop as a result of the installation or use of the encroachment, the permittee, its successors and assigns, shall provide and bear the expenses to adjust, relocate, or reconstruct the facilities, add signs, auxiliary lanes, or other corrective measures reasonably deemed necessary by the Department within a reasonable time after receipt of a written notice of such deficiency. The period within which such adjustments, relocations, additions, modifications, or other corrective measures must be completed will be specified in the notice.
9. Where traffic signals are required as a condition of granting the requested permit or are thereafter required to correct motor vehicular safety deficiencies, as determined by the Department, the costs for signal equipment and installation(s) shall be borne by the permittee, its successors and assigns and the Department in its reasonable discretion and only in accordance with the Department's current policy set forth in the Traffic Operations Manual and Permits Manual. Any modifications to the permittee's entrance necessary to accommodate signalization (including necessary easement(s) on private property) shall be the responsibility of the permittee, its successors and assigns, at no expense to the Department.

APPROVED
SEP 15 2023
KENTUCKY TRANSPORTATION CABINET
30-2593-5001



APPLICATION FOR ENCROACHMENT PERMIT

10. The requested encroachment shall not infringe on the frontage rights of an abutting owner without their written consent as hereinafter described. Each abutting owner shall express their consent, which shall be binding on their successors and assigns, by the submission of a notarized statement as follows, "I (we), _____, hereby consent to the granting of the permit requested by the applicant along Route _____, which permit does affect frontage rights along my (our) adjacent real property." By signature(s) _____, subscribed and sworn by _____, on this date _____.
11. The permit, if approved, is subject to the agreement that it shall not interfere with any similar rights or permit(s) previously granted to any other party, except as otherwise provided by law.
12. Permittee shall include documentation which describes the facilities to be constructed. Permittee, its successors and assigns, agree as a condition of the granting of the permit to construct and maintain any and all permitted facilities or other encroachments in strict accordance with the submitted and approved permit documentation and the policies and procedures of the Department. Permittee, its successors and assigns, shall not use facilities authorized herein in any manner contrary to that prescribed by the approved permit. Only normal usage as contemplated by the parties and by this application and routine maintenance are authorized by the permit.
13. Permittee, its successors and assigns, at all times from the date permitted work is commenced until such time as all permitted facilities or other encroachments are removed from the right-of-way and the right-of-way restored, **shall defend, protect, indemnify and save harmless** the Department from any and all liability claims and demands arising out of the work, encroachment, maintenance, or other undertaking by the permittee, its successors and assigns, related or undertaken pursuant to the granted permit, due to any claimed act or omission by the permittee, its servants, agents, employees, or contractors. This provision shall not inure to the benefit of any third party nor operate to enlarge any liability of the Department beyond that existing at common law or otherwise if this right to indemnity did not exist.
14. Upon a violation of any provision of the permit, or otherwise in its reasonable discretion, the Department may require additional action by the permittee, its successors and assigns, up to and including the removal of the encroachment and restoration of the right-of-way. In the event additional actions required by the Department under the permit are not undertaken as ordered and within a reasonable time, the Department may in its discretion cause those or other additional corrective actions to be undertaken and the Department shall recover the reasonable costs of those corrective actions from the permittee, its successors and assigns.
15. Permittee, its successors and assigns, shall use the encroachment premises in compliance with all requirements of federal law and regulation, including those imposed pursuant to Title VI of the Civil Right Act of 1964 (42 U.S.C. § 2000d et seq.) and the related regulations of the U.S. Department of Transportation in Title 49 C.F.R. Part 21, all as amended.
16. Permittee, its successors and assigns, agree that if the Department determines it is necessary for the facilities or other encroachment authorized by the permit to be removed, relocated or reconstructed in connection with the reconstruction, relocation or improvement of a highway, the Department may revoke permission for the encroachment to remain under the permit and may order its removal, relocation or reconstruction by the permittee, its successors and assigns, at the expense of the permittee, except where the Department is required by law to pay any or all of those costs.

APPROVED
SEPTEMBER 6, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00812



APPLICATION FOR ENCROACHMENT PERMIT

- 17. Permittee agrees that the authorized permit is personal to the permittee and shall remain in effect until such time as (a) the permittee's rights to the adjoining real property to have benefitted from the requested encroachment have been relinquished, (b) until all permit obligations have been assumed by appropriate successors and assigns, and (c) unless and until a written release from permit obligations has been granted by the Department. The permit and its requirements shall also bind the real property to have benefitted from the requested encroachment to the extent permitted by law. The permit and the related encroachment become the responsibility of the successors and assigns of the permittee and the successors and assigns of each property owner benefitting from the encroachment, or the encroachment may not otherwise permissibly continue to be maintained on the right-of-way. (Does not apply to utility encroachments serving the general public.)
- 18. If work authorized by the permit is within a highway construction project in the construction phase, it shall be the responsibility of the permittee to make personal contact with the Department's Engineer on the project in order to coordinate all permitted work with the Department's prime contractor on the project.
- 19. This permit is not intended to, nor shall it, affect, alter or alleviate any requirement imposed upon the permittee, its successors and assigns, by any other agency.
- 20. Permittee, its successors and assigns, agree to contain and maintain all dirt, mud, and other debris emanating from the encroachment away from the surrounding right-of-way and the travel way of the highway hereafter and at all times that its obligations under the permit remain in effect.
- 21. Before You Dig: The contractor is instructed to call 1-800-752-6007 to reach KY 811, the One-Call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that the owners of underground facilities are not required to be members of the KY 811 One-Call Before U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Clerk to determine what utility companies have facilities in the area.
- 22. The undersigned Utility acknowledges ownership and control of the facilities proposed to be installed, modified, or extended by the Applicant/Permittee and agrees to be bound by the requirements and terms of this application and all related documents making up the approved permit, by the Department's Permits Guidance Manual, and by all applicable regulations and statutes in effect on the date of issuance of the permit. This information and application is certified correct to the best knowledge and belief of the undersigned Utility.

Northern Kentucky Water District

UTILITY

Steve Broering

NAME (Utility Representative)

Steve Broering

SIGNATURE (Utility Representative)

Engineering Technician

TITLE (Utility Representative)

8-18-2023

DATE



Know what's below. Call before you dig.

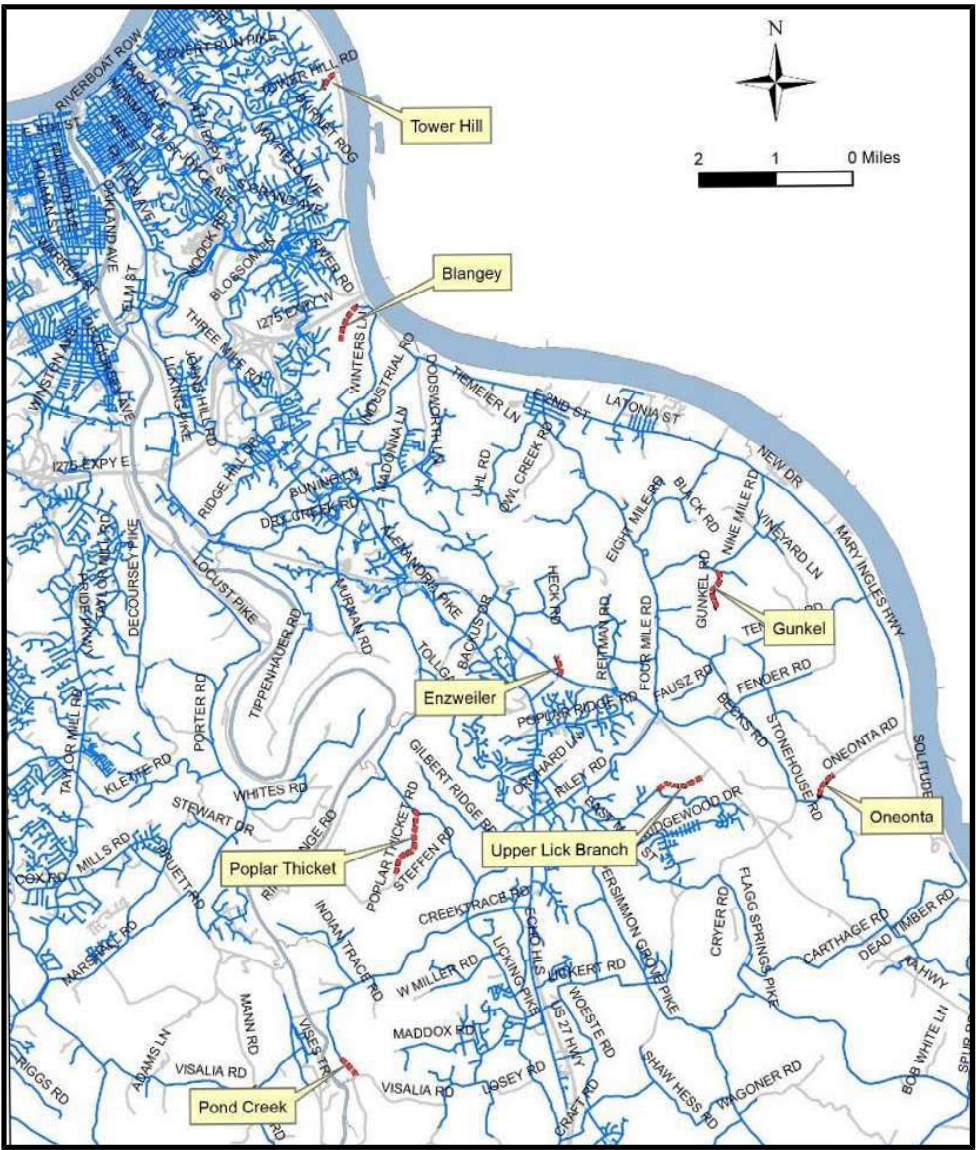
To Submit a Locate Request
24 Hours a Day, Seven Days a Week:
Call 811 or 800-752-6007

APPROVED
SEPTEMBER 6, 2023
KENTUCKY TRANSPORTATION CABINET
30-25245-0812

SUBDISTRICT HB WATER MAIN EXTENSION PROJECT

CAMPBELL COUNTY, KENTUCKY

LEGEND	
EXISTING STRUCTURES AND FEATURES	PROPOSED STRUCTURES AND FEATURES
—○— OVERHEAD ELECTRIC	— W— WATER LINE
—○— UNDERGROUND ELECTRIC	—○— WATER VALVE
—□— ELECTRIC BOX	—○— FIRE HYDRANT
—○— ELECTRIC MANHOLE	—○— NEW METER SETTING
—○— ANCHOR POLE	—○— INLET PROTECTION
—○— LIGHT POLE	—○— SILT FENCE
—○— UTILITY POLE	—○— LIMITS OF CONSTRUCTION
—○— GROUND LIGHT	—○— MILL EXISTING BITUMINOUS ASPHALT
—○— OVERHEAD TELEPHONE	—○— CONCRETE PAVEMENT 1-1/2" AND
—○— UNDERGROUND TELEPHONE	—○— RESURFACE WITH KDOT APPROVED
—○— TELEPHONE BOX	—○— BITUMINOUS ASPHALT PAVEMENT.
—○— TELEPHONE MANHOLE	—○— TRENCH RESTORATION ONLY
—○— BOLLARDS	—○— CONC WALK/DRIVE RESTORATION
—○— SIGN	—○— CONCRETE PANEL REPLACEMENT
—○— MAIL BOX	—○— GRAVEL DRIVE RESTORATION
—○— WATER LINE	—○— REPLACE AND RECONNECT SERVICE
—○— WATER VALVE	—○— LINE (BID ITEM 10.01)
—○— FIRE HYDRANT	—○— REPLACE SERVICE LINE AND
—○— WATER METER	—○— INSTALL WATER METER SETTING
—○— WATER VALVE BOX	—○— (BID ITEM 10.02)
—○— WATER VALVE MANHOLE	—○— RECONNECT COPPER SERVICE (BID
—○— POST INDICATOR VALVE	—○— ITEM 10.03)
—○— GAS LINE	—○— ABANDON EXISTING CURB
—○— GAS METER	—○— STOP/METER SETTING MOVE
—○— GAS VALVE	—○— METER OUTSIDE (BID ITEM 10.08)
—○— GAS VALVE BOX	
—○— UTILITY MANHOLE	
—○— SEWER MANHOLE	
—○— STORM MANHOLE	
—○— DITCH OR CREEK	
—○— GUARDRAIL	
—○— FENCE LINE	
—○— R/W FENCE LINE	



VICINITY MAP
SCALE: 1" = 6000'

SHEET INDEX	
C-000	TITLE/VICINITY MAP
C-100	SPECIFICATION SHEET
C-240-241	DETAIL SHEETS
C-501-503	TOWER HILL ROAD PLAN AND PROFILE SHEETS
C-504-509	BLANGEY ROAD PLAN AND PROFILE SHEETS
C-510-512	ENZWEILER ROAD PLAN AND PROFILE SHEETS
C-513-518	GUNKEL ROAD PLAN AND PROFILE SHEETS
C-519-534	ONEONTA ROAD (KY 1566) PLAN AND PROFILE SHEETS
C-535-542	UPPER LICK BRANCH PLAN AND PROFILE SHEETS
C-543-546	POND CREEK ROAD (KY 1936) PLAN AND PROFILE SHEETS
C-547-557	POPLAR THICKET ROAD PLAN AND PROFILE SHEETS

CONTACTS

PUBLIC WORKS:

(TOWER HILL ROAD)
TIM MATTINGLY
 CITY OF FORT THOMAS
 130 N FORT THOMAS AVENUE
 FORT THOMAS, KENTUCKY 41075
 (859) 441-1055

ROAD DEPARTMENTS:

(BLANGEY ROAD, GUNKEL ROAD, UPPER LICK BRANCH, ENZWEILER ROAD, POPLAR THICKETT ROAD)

LUKE MANTLE
 CAMPBELL COUNTY ROAD DEPARTMENT
 1175 RACE TRACK ROAD
 ALEXANDRIA, KENTUCKY 41001
 (859)-635-9100

(KY 8, KY 1566, KY 9, KY 915, KY 1936)

LINZY BREFELD
 KENTUCKY TRANSPORTATION CABINET
 DISTRICT 6
 421 BUTTERMILK PIKE
 CRESCENT SPRINGS, KENTUCKY 41017
 (502)-564-6014

WATER:
 NORTHERN KENTUCKY WATER DISTRICT
 2835 CRESCENT SPRINGS ROAD
 P.O. BOX 18640
 ERLANGER, KY 41018
 (859) 578-9898

SEWER:
 SANITATION DISTRICT NO. 1
 1045 EATON DRIVE
 FORT WRIGHT, KENTUCKY 41011
 (859) 578-7450

ELECTRIC:
 DUKE ENERGY
 1262 COX ROAD
 ERLANGER, KENTUCKY 41018
 (513) 287-3589

GAS:

DUKE ENERGY
 1262 COX ROAD
 ERLANGER, KENTUCKY 41018
 (859) 287-5408

TELEPHONE:

CINCINNATI BELL TELEPHONE COMPANY
 201 EAST FOURTH STREET
 103-1175
 CINCINNATI, OHIO 45202
 (513) 566-7185

CABLE TELEVISION:

INSIGHT COMMUNICATIONS
 7906 DIXIE HIGHWAY
 FLORENCE, KENTUCKY 41076
 (888) 735-0300

OTHER UTILITIES:

UNITED UTILITIES PROTECTION
 (800) 752-6007

BENCHMARK INFORMATION

BASIS OF BEARINGS:
 BEARING SYSTEM BASED ON THE KENTUCKY STATE PLANE COORDINATE SYSTEM, NORTH ZONE (NAD 83) PERFORMED BY CARDINAL ENGINEERING CORPORATION IN MARCH, 2020.

SOURCE OF ELEVATION:
 VERTICAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1988, PER GPS OBSERVATIONS UTILIZING KENTUCKY CORS VIRTUAL REFERENCE STATIONING (NAVD 88)

SITE BENCH MARK:
 XXX

REVISIONS	DATE	#	ITEM

CARDINAL
 ENGINEERING
 LAND SURVEYING
 ONE MOOCK ROAD
 WILDER, KENTUCKY 41071
 PHONE: (859) 581-9600
 FAX: (859) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

PROJECT:	WATER MAIN PLAN
	SUB DISTRICT HB WATER MAIN EXTENSION
CLIENT:	NORTHERN KENTUCKY WATER DISTRICT
	2835 CRESCENT SPRINGS ROAD P.O. BOX 18640 ERLANGER, KY 41018-0640

JOB LOG	
DATE	ITEM
06-02-23	TO NKWD-CSI-OTTE-K&V
09-01-23	TO NKWD, CSI, OTTE FINAL REVIEW

DRAWN BY:	SEAL
CHECKED BY:	KENN G. HANSON 19893
PROJECT MANAGER:	KCH
PROJECT NO.:	23-001
SCALE:	AS NOTED
DATE:	01-11-23
TITLE-VICINITY	
SHEET	C-000



NOTE:
 UNDERGROUND UTILITIES ARE SHOWN BASED ON ABOVE GROUND OBSERVATIONS AND CONSTRUCTION PLANS PROVIDED TO CARDINAL ENGINEERING AND MAY NOT BE COMPLETE OR ACCURATE.
 CONTRACTOR TO VERIFY LOCATION AND USE CAUTION WHEN EXCAVATING IN AREAS OF SUSPECTED BURIED UTILITIES.

OSHA NOTES

1. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA): IT SHALL BE THE FULL AND COMPLETE RESPONSIBILITY OF THE CONTRACTOR TO MEET AND COMPLY WITH SAFETY REQUIREMENTS AND REGULATIONS AS ESTABLISHED BY OSHA OR ANY OTHER REGULATORY BODY...

GENERAL NOTES

- 1. CONTRACTOR SHALL NOTIFY KENTUCKY UTILITIES PROTECTION SERVICE AND ALL ENTITIES NOT COVERED BY UTILITY PROTECTION SERVICE AT LEAST (2) DAYS PRIOR TO THE START OF CONSTRUCTION OR ANY EARTHWORK OPERATIONS.
2. WATER SERVICE VALVES TO BE LOCATED AND INSTALLED AS DIRECTED BY THE NORTHERN KENTUCKY WATER DISTRICT.
3. ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE, AND ARE TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL...

WATER DISTRIBUTION (FIRE AND DOMESTIC) NOTES:

QUALITY ASSURANCE

- 1. REGULATORY REQUIREMENTS:
A. COMPLY WITH REQUIREMENTS OF KENTUCKY PLUMBING CODE (WHERE APPLICABLE) AND NORTHERN KENTUCKY WATER DISTRICT (NKWD). INCLUDE TAPPING OF WATER MAINS AND BACKFLOW PREVENTION.
B. COMPLY WITH STANDARDS OF AUTHORITIES HAVING JURISDICTION FOR POTABLE WATER-SERVICE PIPING, INCLUDING MATERIALS, INSTALLATION, TESTING, AND DISINFECTION.

SWPP PLAN NOTES

1. PETROLEUM PRODUCTS

A. ALL ON-SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCES OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS, WHICH ARE CLEARLY LABELED. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES OR STORM DRAINS...

B. ANY ASPHALT SUBSTANCES USED ON-SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

2. FERTILIZERS

A. FERTILIZERS USED WILL ONLY BE APPLIED IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE OF SAID FERTILIZER WILL BE COMPLETELY COVERED...

3. DEBRIS

A. DEBRIS SHALL BE COLLECTED WITHIN PROPERTY LIMITS WEEKLY OR AS NEEDED FOR PUBLIC SAFETY. SURROUNDING STREETS AFFECTED BY THE CONSTRUCTION SHALL BE CLEANED DAILY OR AS NEEDED FOR PUBLIC SAFETY.

4. BEST MANAGEMENT PRACTICES

A. BEST MANAGEMENT PRACTICES (BMPs) AS PRESENTED IN THE CURRENT SD1 BEST MANAGEMENT PRACTICES MANUAL SHALL BE FOLLOWED ON THE SITE AT ALL TIMES. A COPY OF THIS MANUAL SHALL BE ONSITE AT ALL TIMES.

5. TRAFFIC CONTROL

A. THE CONTRACTOR IS REQUIRED TO PROVIDE TRAFFIC CONTROL FOR THE EXPORTING OF MATERIAL FROM THE SITE.

ELECTRIC NOTES

- 1. THE CONTRACTOR SHALL CONTACT THE COMPANY PRIOR TO EXCAVATION IN VICINITY OF ELECTRIC UNDERGROUND FACILITIES (APPROXIMATE PLAN LOCATION SHOWN) OR WHEN WORKING NEAR OVERHEAD ELECTRIC FACILITIES.
a. FOR FIELD INSPECTOR TO LOCATE UNDERGROUND ELECTRIC LINE IN KENTUCKY CALL "KENTUCKY UNDERGROUND PROTECTION INC." 1-800-752-6007 (AT LEAST 48 HOURS IN ADVANCE)...

CAMPBELL COUNTY ROADWAY NOTES

- 1. CONTRACTOR (PERMITEE) SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE CAMPBELL COUNTY ROAD DEPARTMENT FOR THE WATER MAIN PROJECTS ALONG BLANGEY ROAD, ENZWEILER ROAD, GUNKEL ROAD, UPPER LICK BRANCH, AND POPLAR THICKET ROAD.
2. CONTRACTOR SHALL PROVIDE CAMPBELL COUNTY ROAD DEPARTMENT A PRE-CONSTRUCTION VIDEO OF THESE ROADWAYS (CONSTRUCTION CORRIDOR) PRIOR TO COMMENCEMENT OF CONSTRUCTION (REQUIRED AS PART OF THE COUNTY PERMIT).
3. THE CONTRACTOR SHALL NOTIFY THE CAMPBELL COUNTY ROAD DEPARTMENT THREE (3) DAYS PRIOR TO CONSTRUCTION.

EXCAVATION:

- 10. WHENEVER CULVERTS, SEWERS, MANHOLES, VALVE CHAMBERS, CATCH-BASIN CONNECTIONS, WATER MAINS, GAS PIPE, ELECTRIC CONDUITS, SERVICES OR HOUSE CONNECTIONS THERETO, OR ANY TYPE OF SUBSURFACE FACILITIES ARE EXPOSED IN EXCAVATING, THE PERMITEE SHALL, AT THEIR OWN EXPENSE, PROTECT THEM FROM DAMAGE.
11. THE PERMITEE SHALL USE ALL NECESSARY PRECAUTIONS TO PROTECT PERSONS AND/OR PROPERTY FROM INJURY AND/OR DAMAGE, BARRICADES AND SUFFICIENT WARNING LIGHTS SHALL BE PLACED ALONG THE OPENING PER MUTCD. FLAGMEN SHALL BE PROVIDED BY THE PERMITEE, IF NECESSARY, PER MUTCD.

BACKFILLING:

- 15. UTILITY ASSETS TO BE SHADED PER UTILITY OWNER SPECIFICATIONS. THEN CONTROL DENSITY FILL (CDF) USED TO FILL ENTIRE EXCAVATION TO ELEVATION THAT MEETS RESTORATION SPECIFICATION. ANY AND ALL SPOILS TO BE HAULED AWAY.
16. ALL SOILS MUST BE COMPACTED.
17. ALL EXCAVATIONS BEGIN WITH SAW CUT.

ASPHALT ROADS:

- 17. ALL EXCAVATIONS BEGIN WITH SAW CUT.
18. 36" MINIMUM COVER TO ASSET (MAIN, SERVICE, ETC.).
19. SHADE UTILITY ASSET PER UTILITY OWNER'S SPECIFICATION.
20. CONTROL DENSITY FILL (CDF) TO WITHIN NINE AND ONE HALF (9.5) INCHES OF THE ROAD SURFACE AFTER SETTLING.

RESPONSIBILITY FOR DUST, DIRT, AND APPEARANCE:

- 30. ALL PROJECT AREAS WILL BE KEPT CLEAN, SWEEP AND/OR WASHED AS NEEDED. EVERY ACTION WILL BE TAKEN TO KEEP DEBRIS OUT OF STORM WATER SYSTEMS, INCLUDING DITCH LINES. ANY DISTURBANCES WILL BE REMEDIATED.

CAMPBELL COUNTY ROADWAY NOTES (continued)

CONCRETE ROADS:

- (A) IF SLAB IS CUT FOR EXCAVATION THEN ENTIRE SLAB MUST BE REPLACED.
(B) 36" MINIMUM COVER TO ASSET (MAIN, SERVICE...)
(C) SHADE UTILITY ASSET PER UTILITY OWNER'S SPECIFICATION.
(D) CONTROL DENSITY FILL (CDF) TO WITHIN EIGHT (8) INCHES OF ROAD SURFACE AFTER SETTLING.

DITCH LINE AND / OR RIGHT OF WAY:

- (A) ALL UTILITY ASSETS (MANS, SERVICES...) TO BE BURIED NO LESS THAN 42" BELOW BOTTOM OF DITCH LINE. AND TWO FEET OFF EDGE OF ROAD SO THAT FUTURE DITCH LINE MAINTENANCE CAN PROCEED WITHOUT FEAR OF UTILITY SERVICE INTERRUPTION.
(B) DITCH LINE TO REMAIN OPEN THEN RESTORED WITH FLOW TOWARDS INTENDED OUTFALL.
(C) NEAREST SLOPE OF DITCH LINE TO BE AT LEAST TWO FEET OFF EDGE OF ROAD. ADDITIONAL EXCAVATION MAY NEED TO BE TAKEN IN ORDER TO OBTAIN PROPER DITCH LINE. ALL SLOPES TO BE RESTORED AT A MINIMUM OF 3-1.

KYTC ROADWAY NOTES

- 1. PAVEMENT OF STATE ROUTES SHALL NOT BE OPEN CUT UNLESS OTHERWISE NOTED ON PLANS, OR BY PRIOR AUTHORIZATION FROM KYTC.
2. THE NORTHERN KENTUCKY WATER DISTRICT WILL PAY FOR AND OBTAIN ALL PERMITS FROM THE KENTUCKY TRANSPORTATION CABINET, DISTRICT 6.
3. APPLICABLE ROADWAYS INCLUDE MARY INGLES HIGHWAY (KY 8), ONEONTA ROAD (KY 1566), AA HIGHWAY (KY 9), POND CREEK ROAD (KY 1936), AND LICKING PIKE (915).

CITY OF FORT THOMAS ROADWAY NOTES

- 1. APPLICABLE ROAD IS TOWER HILL ROAD.
2. THE CONTRACTOR SHALL NOTIFY THE CITY OF FORT THOMAS PUBLIC WORKS THREE (3) DAYS PRIOR TO CONSTRUCTION.
3. ALL PAVEMENT CUTS SHALL BE SAW CUT AND NEATLY PATCHED TO MATCH EXISTING PAVEMENT SECTION. ALL COSTS FOR SUCH PAVEMENT CUTS, PATCHING, AND OVERLAYS AS REQUIRED SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

Table with 3 columns: REVISIONS, DATE, #, ITEM. It is currently empty.

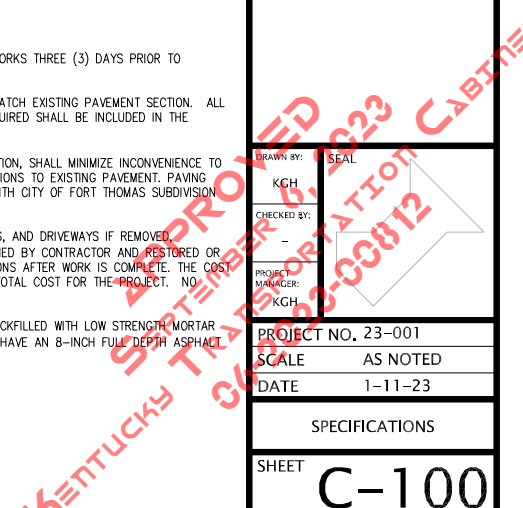


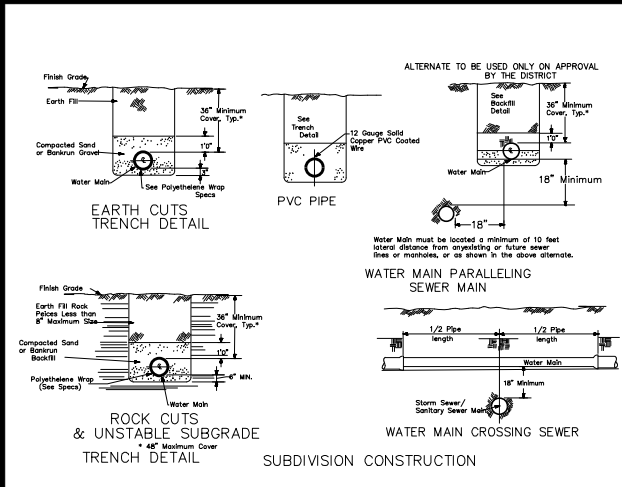
WEBSITE: http://www.cardinalengineering.net

PROJECT: WATER MAIN PLAN SUB DISTRICT HB WATER MAIN EXTENSION
CLIENT: NORTHERN KENTUCKY WATER DISTRICT 2835 CRESCENT SPRINGS ROAD P.O. BOX 18640 ERLANGER, KY 41018-0640

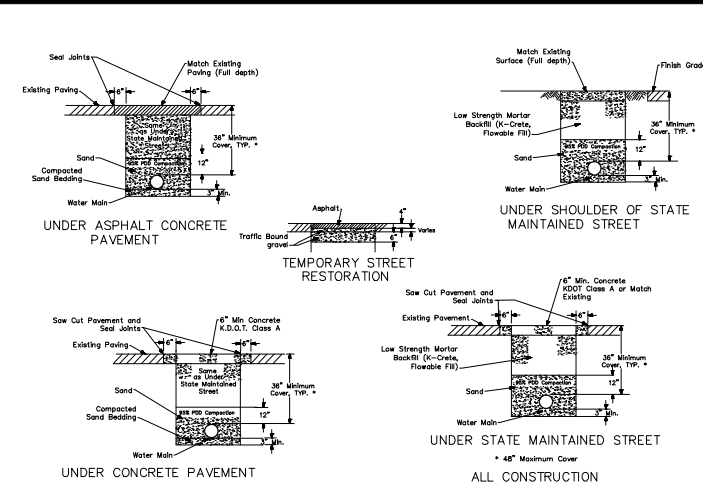
APPROVED BY: [Signature]
DATE: 10/16/23
PROJECT NO. 23-001

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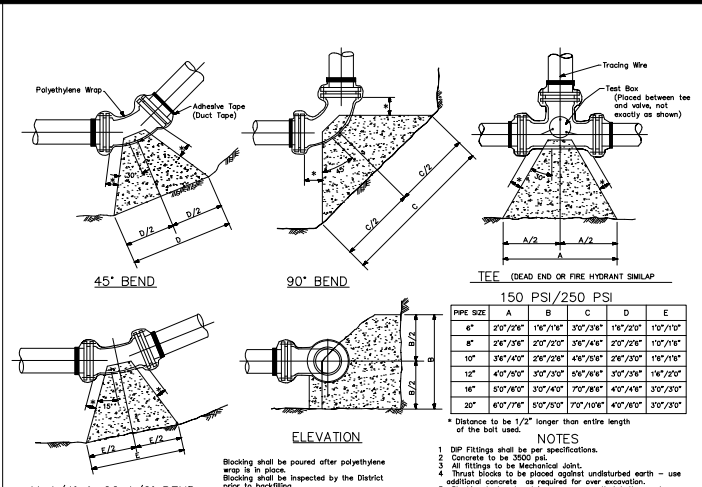




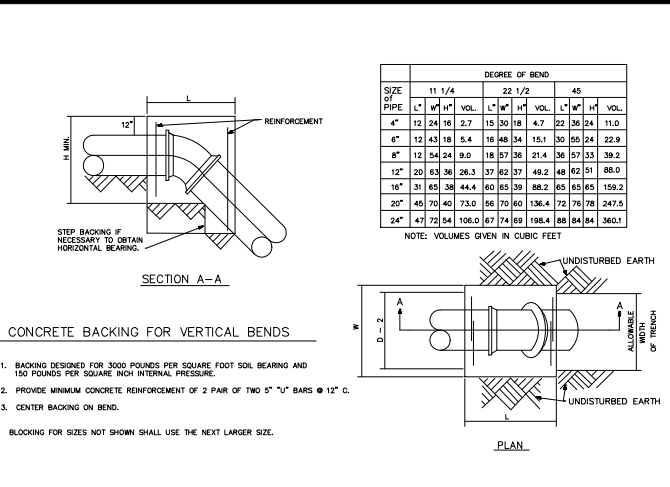
1 TYPICAL PIPELINE TRENCH DETAIL
DWG NO. 103
SCALE: NTS



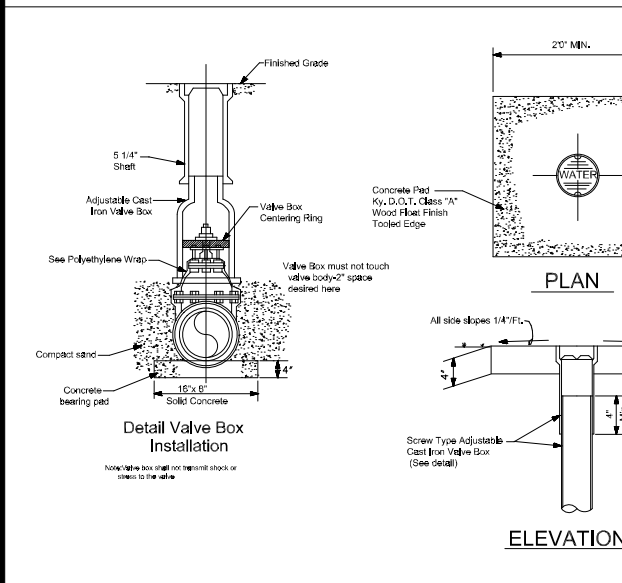
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DWG NO. 103A
SCALE: NTS



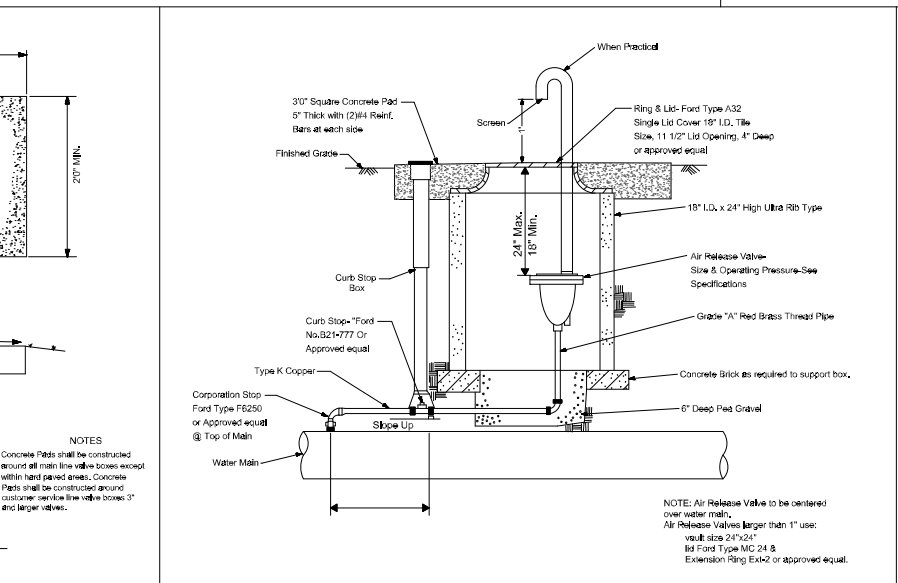
3 CONCRETE THRUST BLOCK - DWG NO. 104
SCALE: NTS



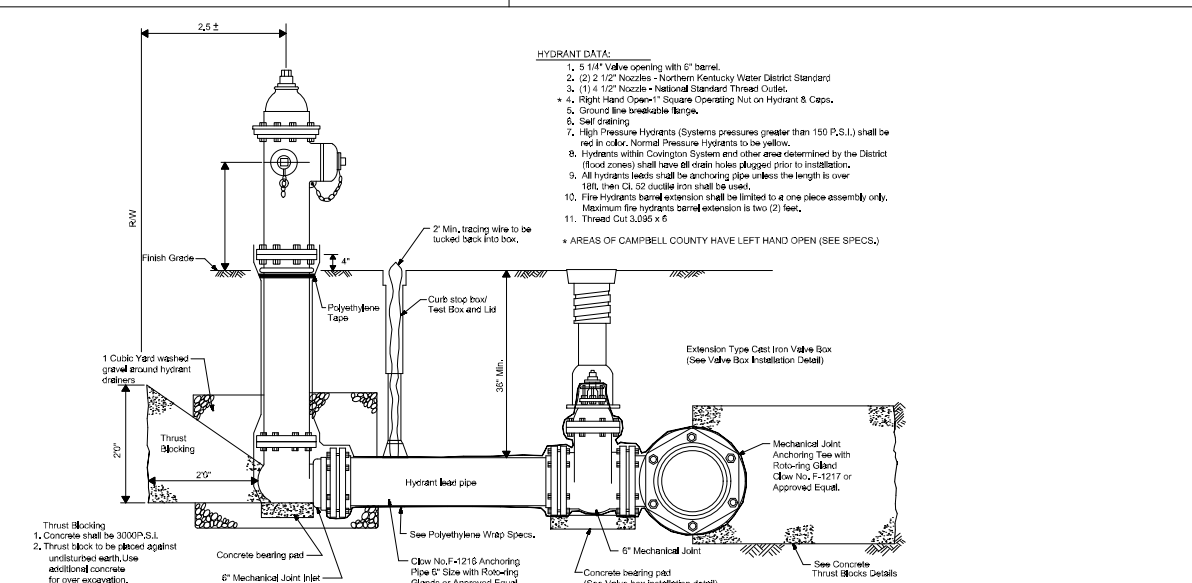
4 CONCRETE THRUST BLOCK FOR VERTICAL BENDS - DWG NO. 104A
SCALE: NTS



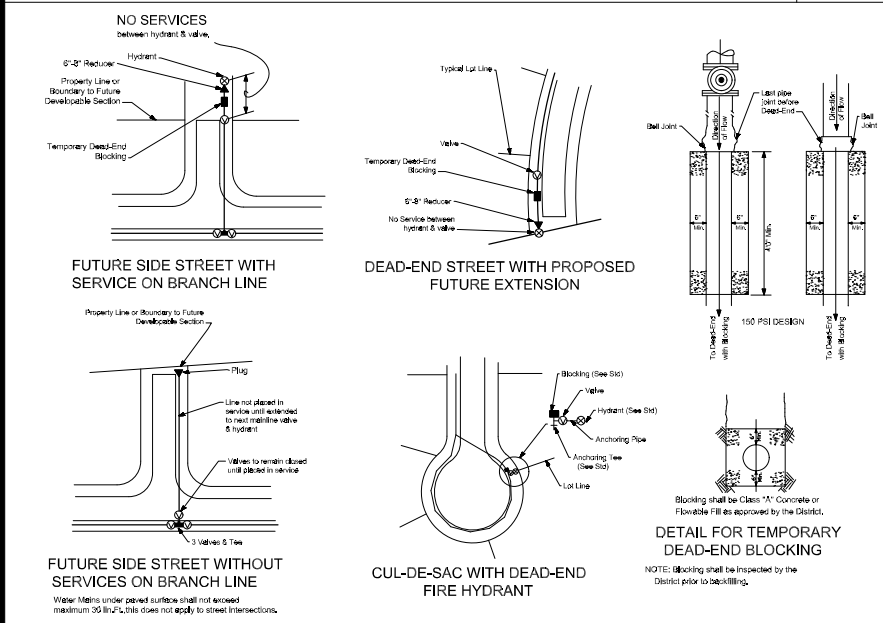
5 VALVE BOX AND VALVE PAD DWG NO. 105
SCALE: NTS



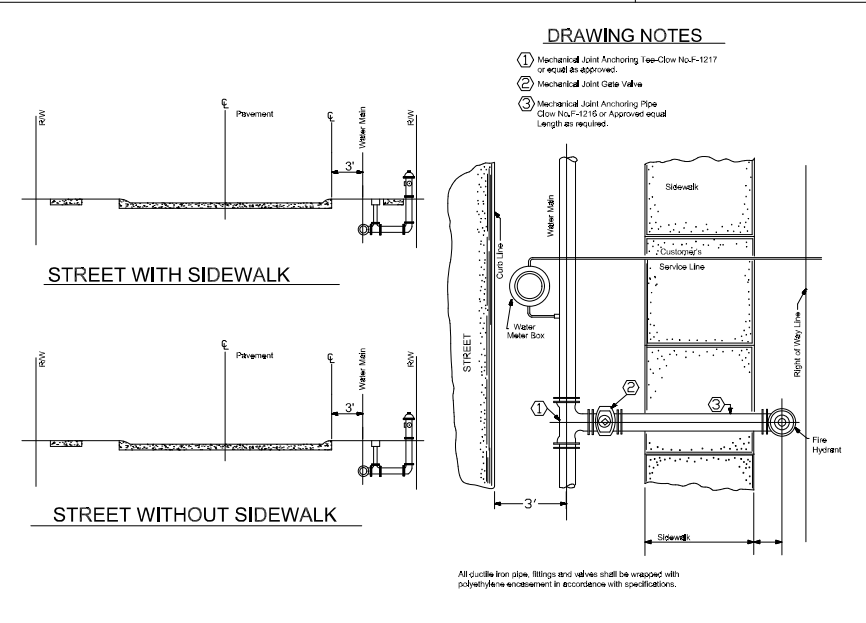
6 AIR RELEASE VALVE - DWG NO. 106
SCALE: NTS



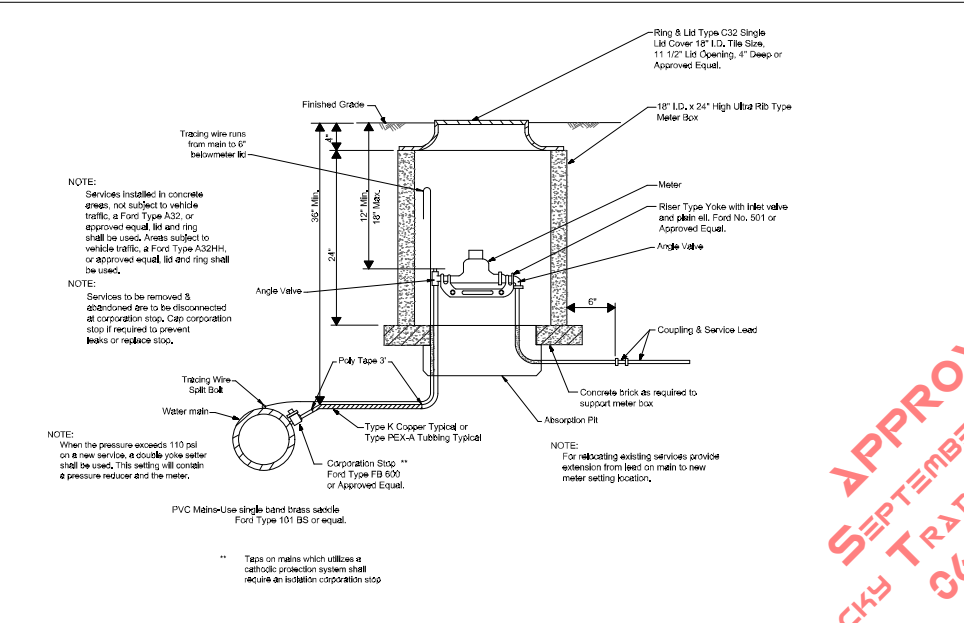
7 HYDRANT ASSEMBLY DWG NO. 109
SCALE: NTS



8 WATER MAINS TERMINATIONS NO. 102
SCALE: NTS



9 WATER MAINS TERMINATIONS NO. 102
SCALE: NTS



10 5/8" & 1" METER SETTING NO. 107
SCALE: NTS

REVISIONS

DATE	#	ITEM

CARDINAL
ENGINEERING
LAND SURVEYING
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE: (502) 581-9600
FAX: (502) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

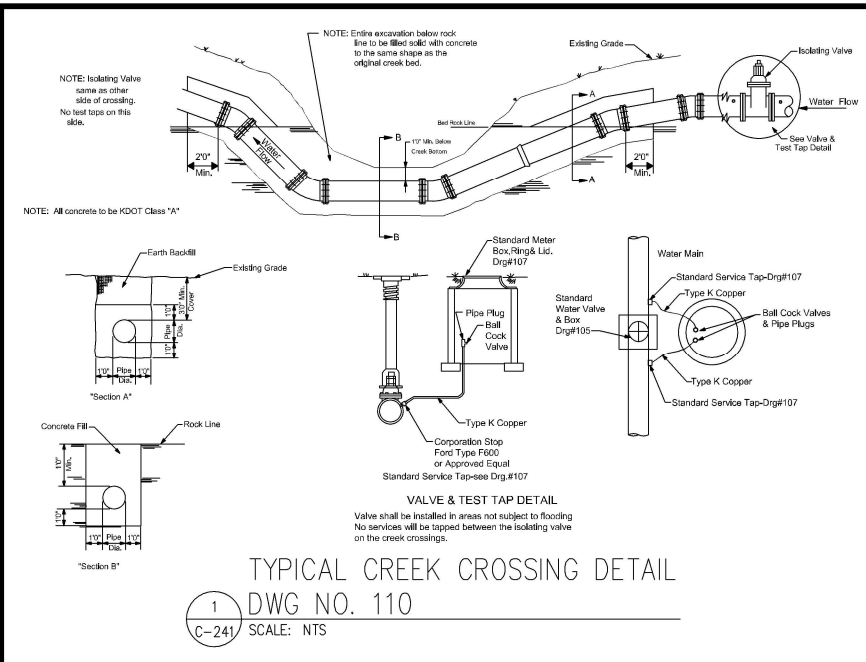
PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

PROJECT NO. 23-001
SCALE AS NOTED
DATE 1-11-23

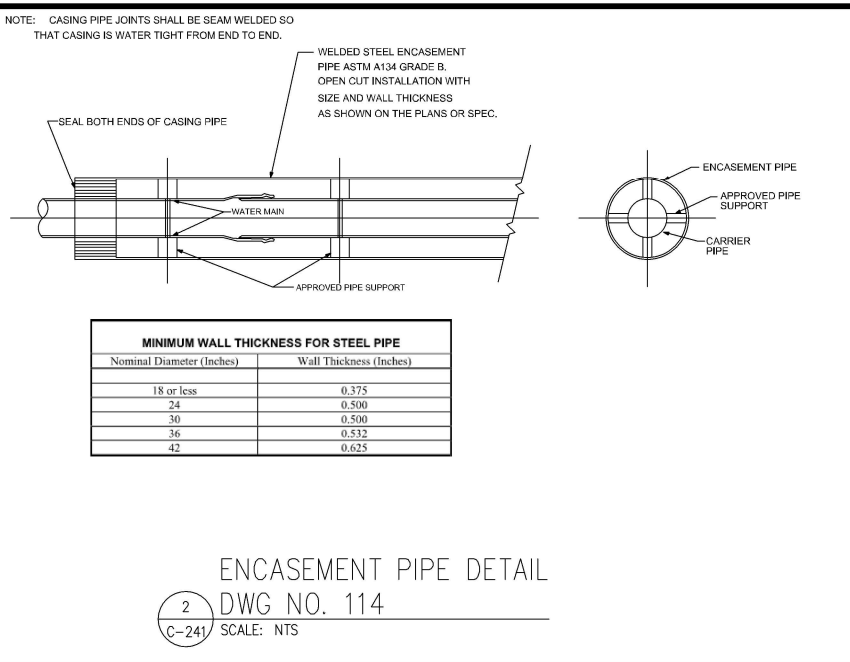
WATER DETAILS
SHEET C-240

APPROVED
SEPTEMBER 16, 2023
KENTUCKY TRANSPORTATION CABINET



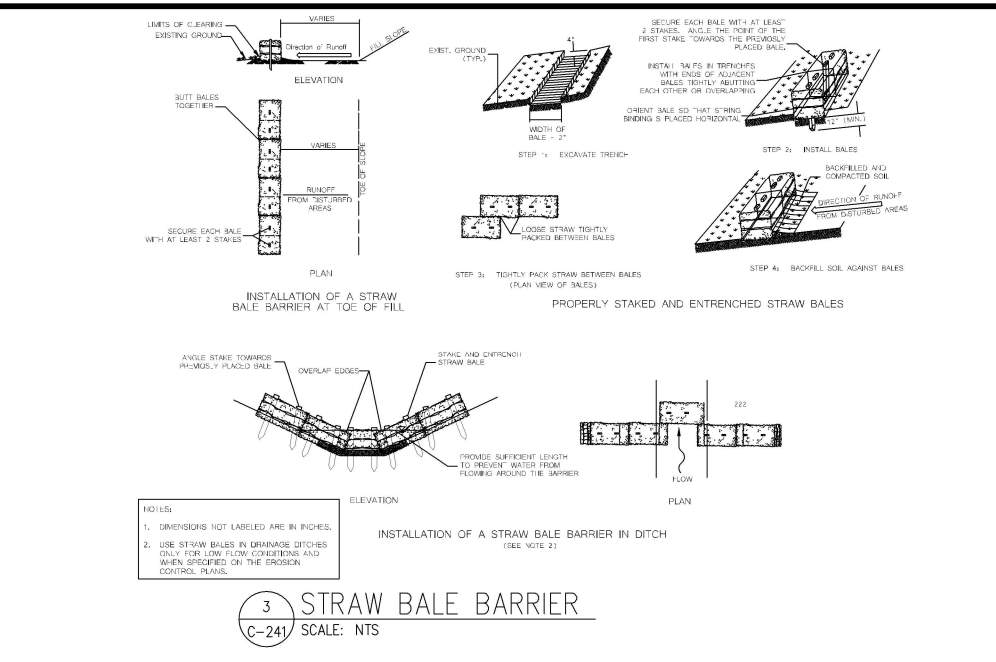
TYPICAL CREEK CROSSING DETAIL

1 DWG NO. 110
C-241 SCALE: NTS



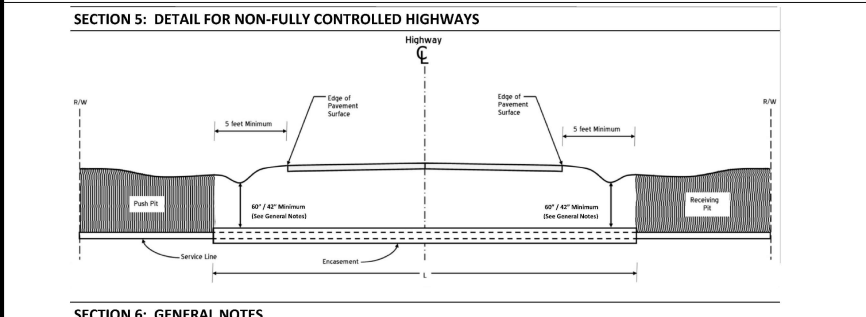
ENCASEMENT PIPE DETAIL

2 DWG NO. 114
C-241 SCALE: NTS



3 STRAW BALE BARRIER

C-241 SCALE: NTS

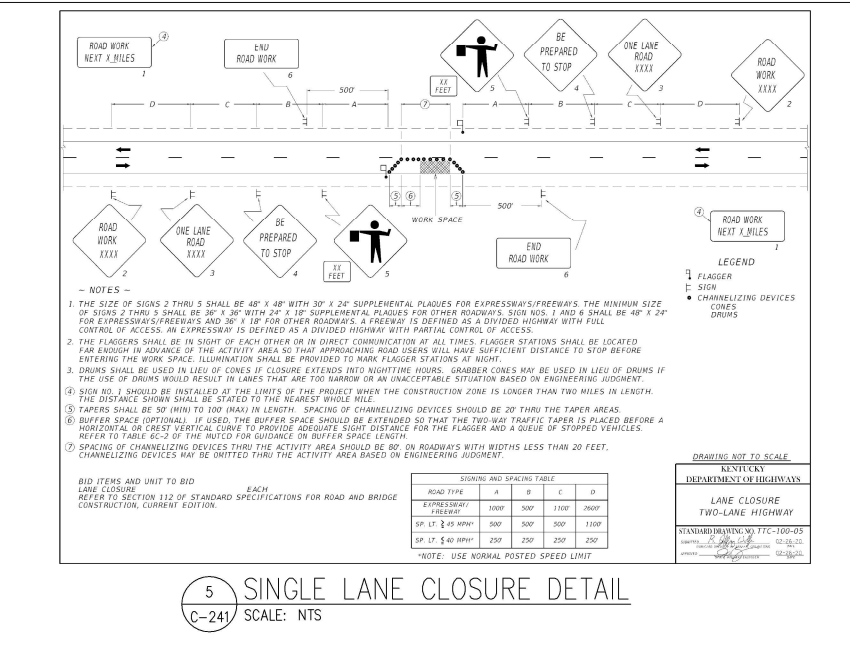


SECTION 6: GENERAL NOTES

- Push Pit and Receiving Pit shall be backfilled and thoroughly compacted.
- All ditch lines are to remain open at all times and restored to original condition.
- Shape, Seed and Straw all disturbed areas immediately after completing the work.
- Provide traffic control as required to ensure the safety of the traveling public in accordance with the current edition of the *Manual on Uniform Traffic Control Devices*.
- The minimum depth for underground electrical lines and natural gas and petroleum fraction lines under roadways, ramps, and ditch lines is 60". The minimum depth for underground electrical lines, natural gas and petroleum fraction lines, and all other underground utilities is 42" in all other areas, unless NESG requires additional depth.
- See [KYTC Permits Manual](#) for all requirements and specifications.

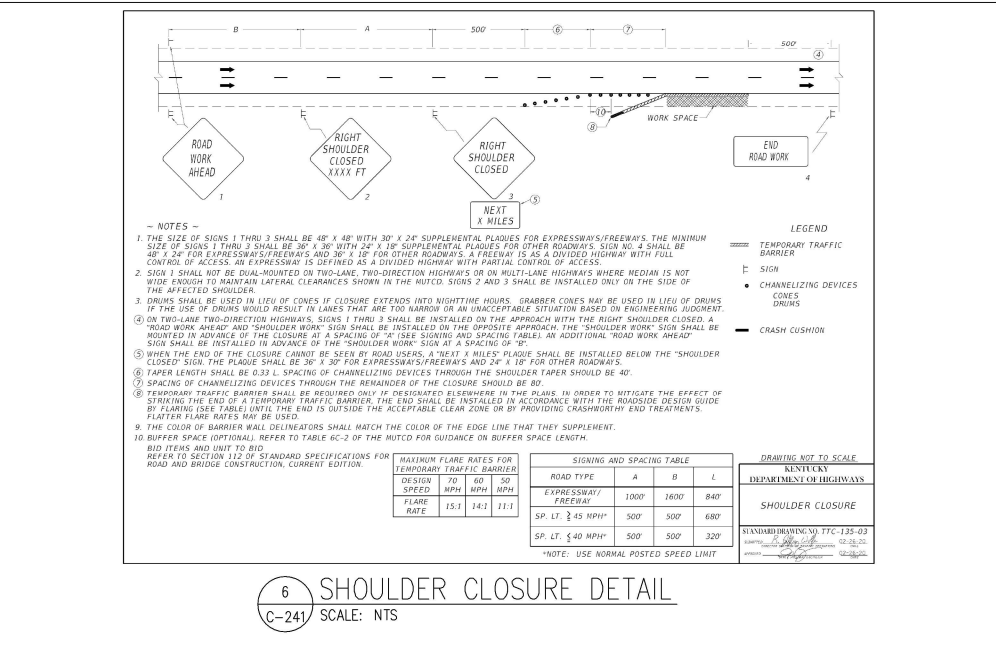
4 TYPICAL HIGHWAY BORE DETAIL

C-241 SCALE: NTS



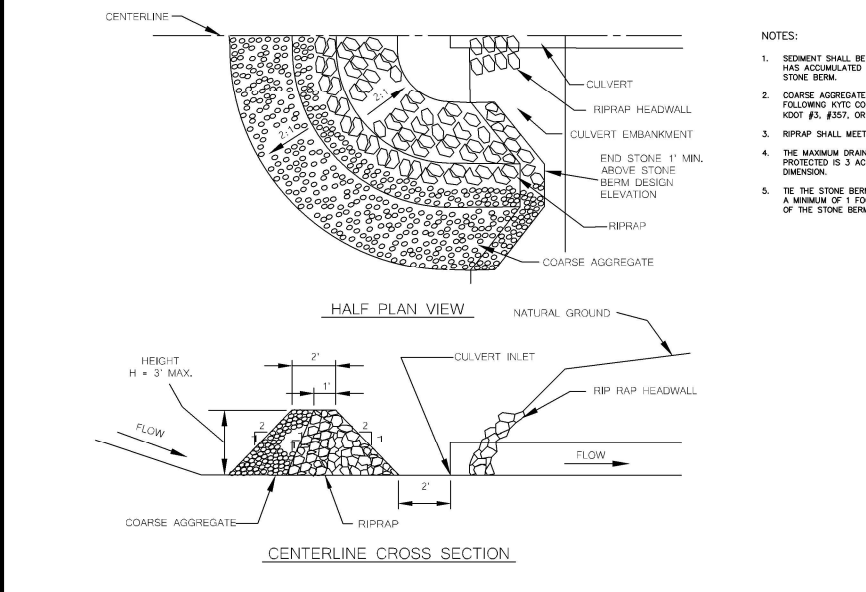
5 SINGLE LANE CLOSURE DETAIL

C-241 SCALE: NTS



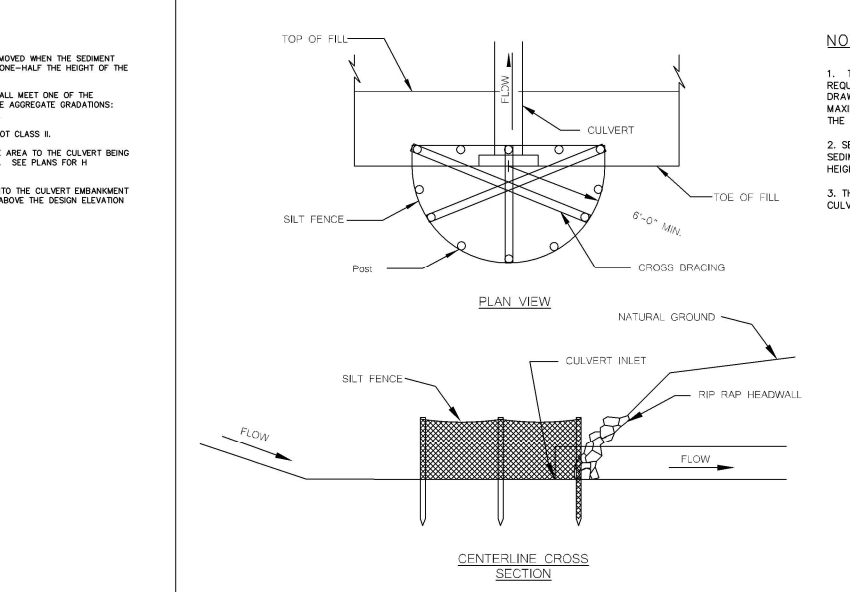
6 SHOULDER CLOSURE DETAIL

C-241 SCALE: NTS



7 CULVERT INLET PROTECTION - STONE

C-241 SCALE: NTS



8 CULVERT INLET PROTECTION - SILT FENCE

C-241 SCALE: NTS

REVISIONS
DATE # ITEM

CARDINAL
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ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE: (859) 581-9600
FAX: (859) 581-9636

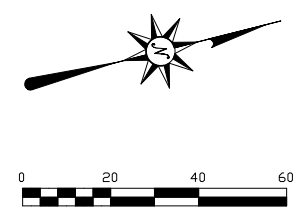
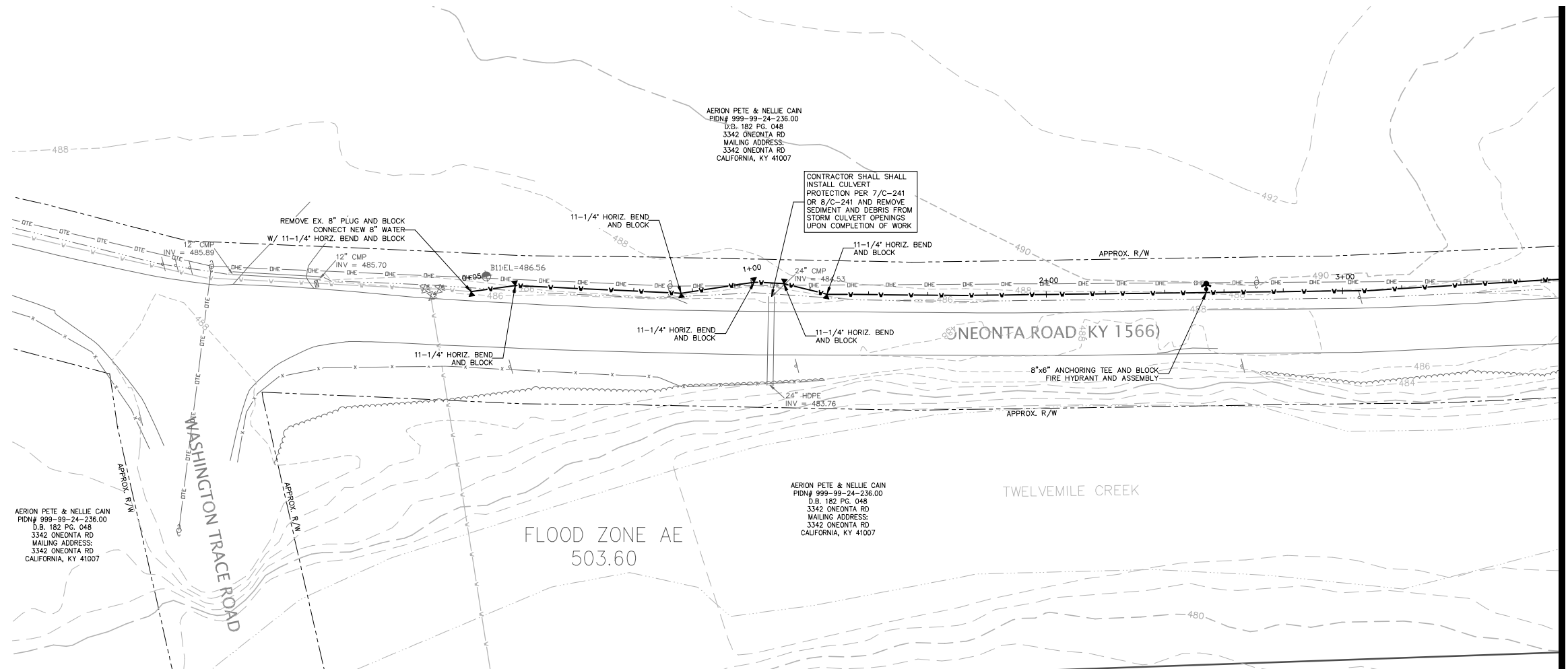
WEBSITE: <http://www.cardinalengineering.net>

PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

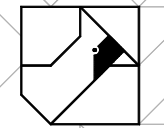
CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

DRAWN BY: [Signature]
CHECKED BY: [Signature]
PROJECT NUMBER: [Signature]
PROJECT NO. 23-001
SCALE AS NOTED
DATE 1-11-23
WATER DETAILS
SHEET C-241

APPROVED
SEPTEMBER 16, 2023
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REVISIONS	DATE	#	ITEM



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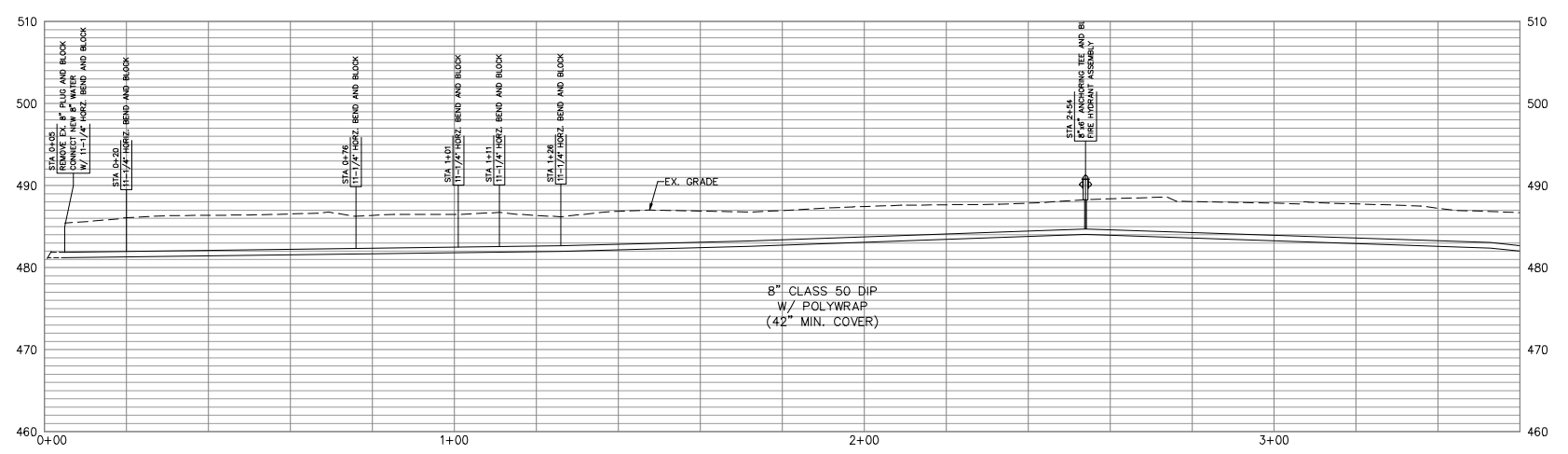
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 - CONTRACTOR SHALL REVIEW GEOTECHNICAL REPORT PREPARED BY CONSULTING SERVICES INCORPORATED (CSI), DATED AUGUST 1, 2023, PROJECT NO. CN230010, PRIOR TO BIDDING THE PROJECT.

MISC. WATER MAIN CONSTRUCTION NOTE

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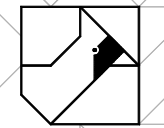
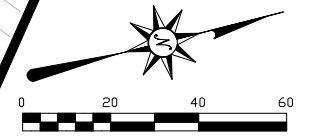
APPROVED
SEPTEMBER 16, 2023
KENTUCKY TRANSPORTATION CABINET

DRAWN BY: SEAL
CHECKED BY: -
PROJECT MANAGER: KCH

PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE
SHEET C-519

REVISIONS	DATE	#	ITEM



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WEBSITE: <http://www.cardinallandengineering.net>

PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

PROJECT:

DRAWN BY: SEAL

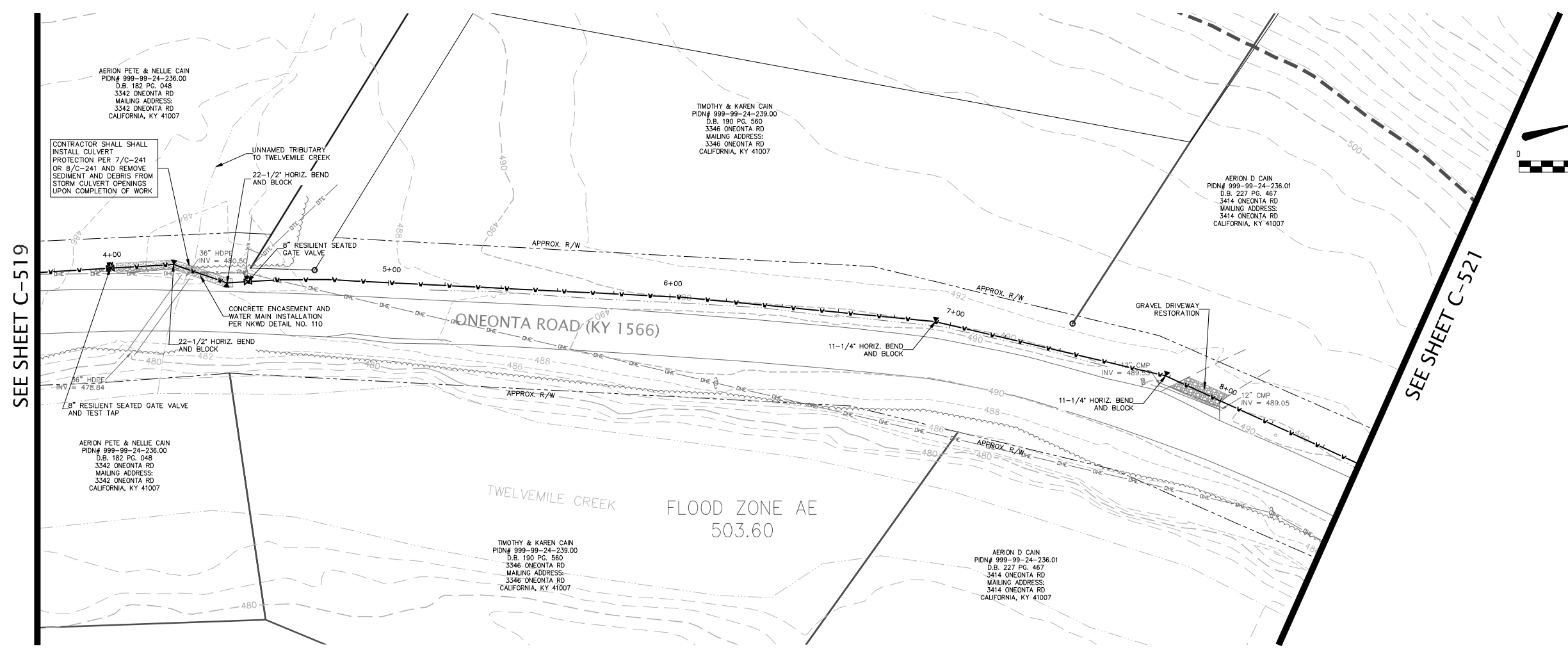
CHECKED BY: -

PROJECT MANAGER: KCH

PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE

SHEET C-520



GEOTECHNICAL GENERAL NOTES:

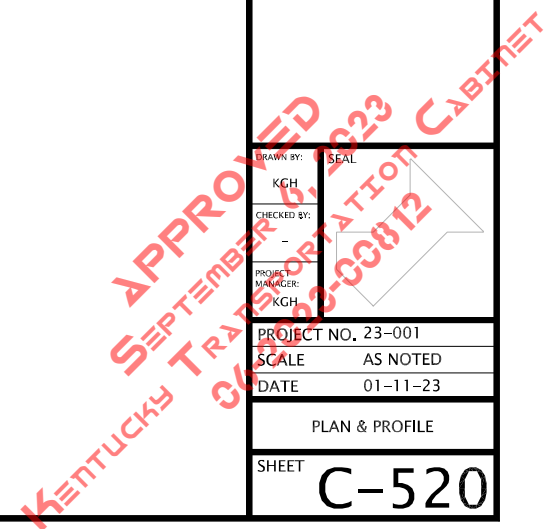
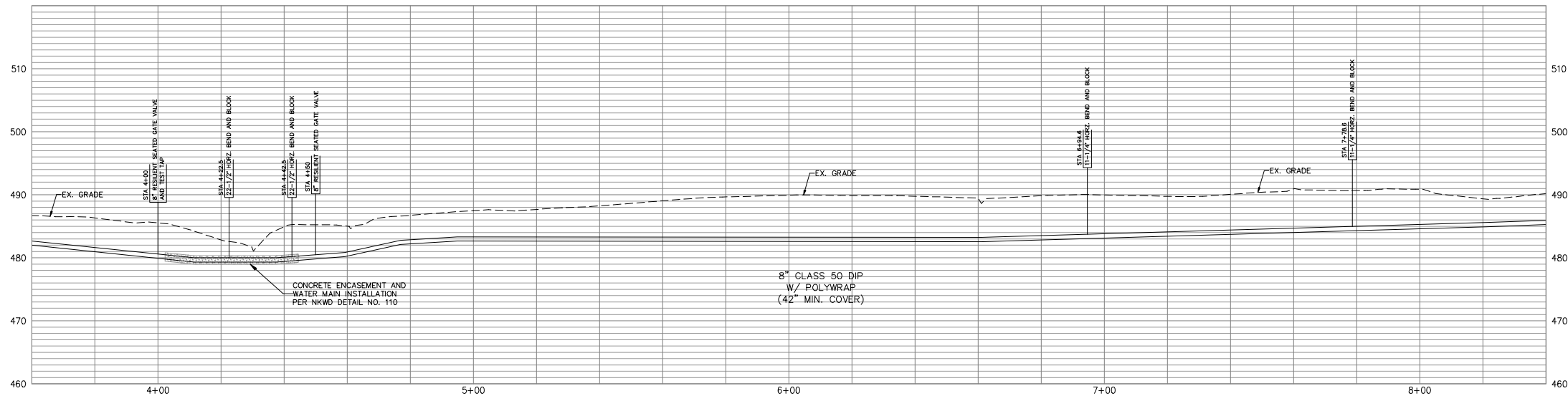
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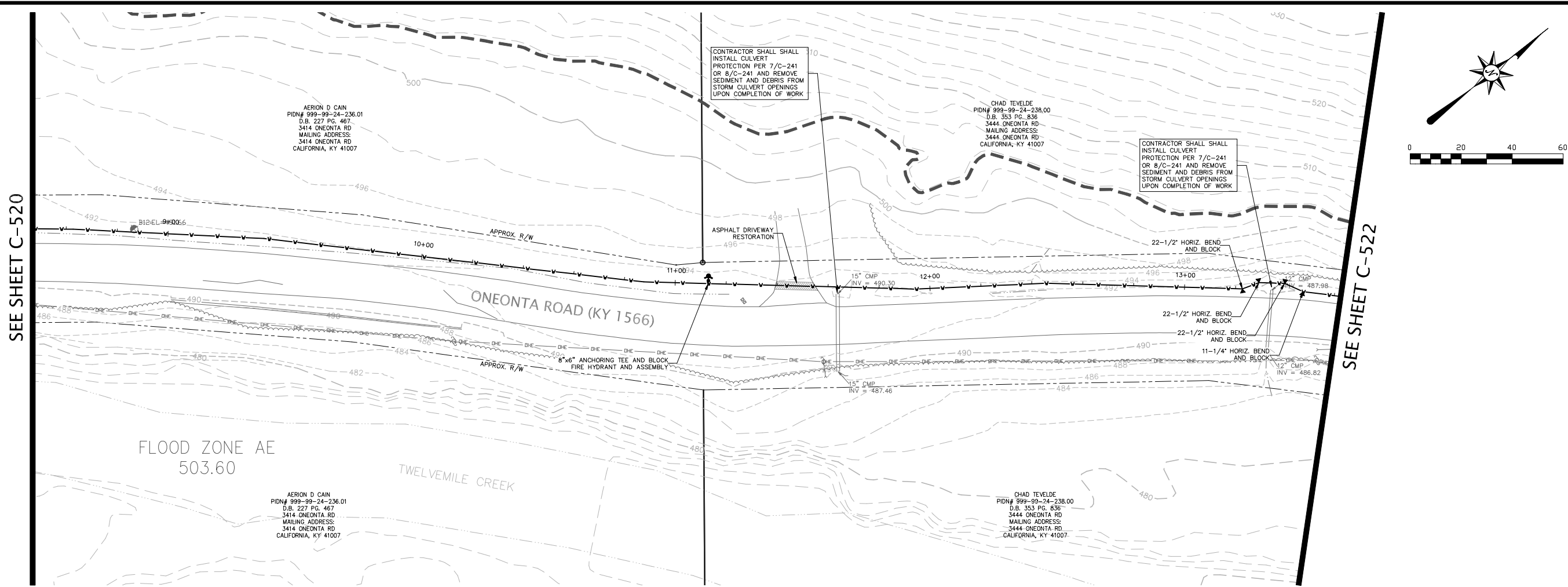
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SEE SHEET C-520

SEE SHEET C-522

REVISIONS	DATE	#	ITEM

CARDINAL
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PHONE: (502) 581-9600
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WEBSITE: <http://www.cardinalengineering.net>

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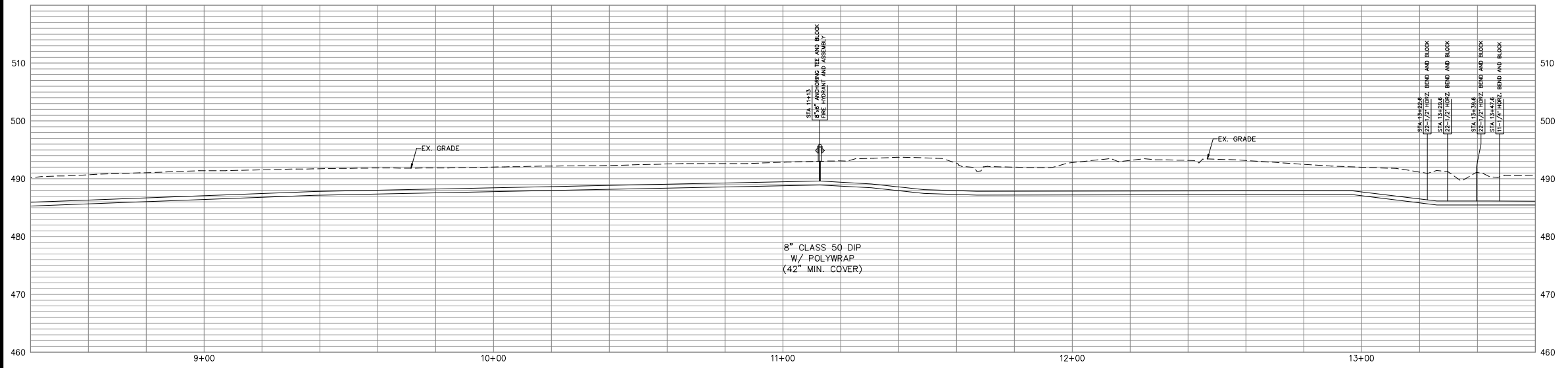
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PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

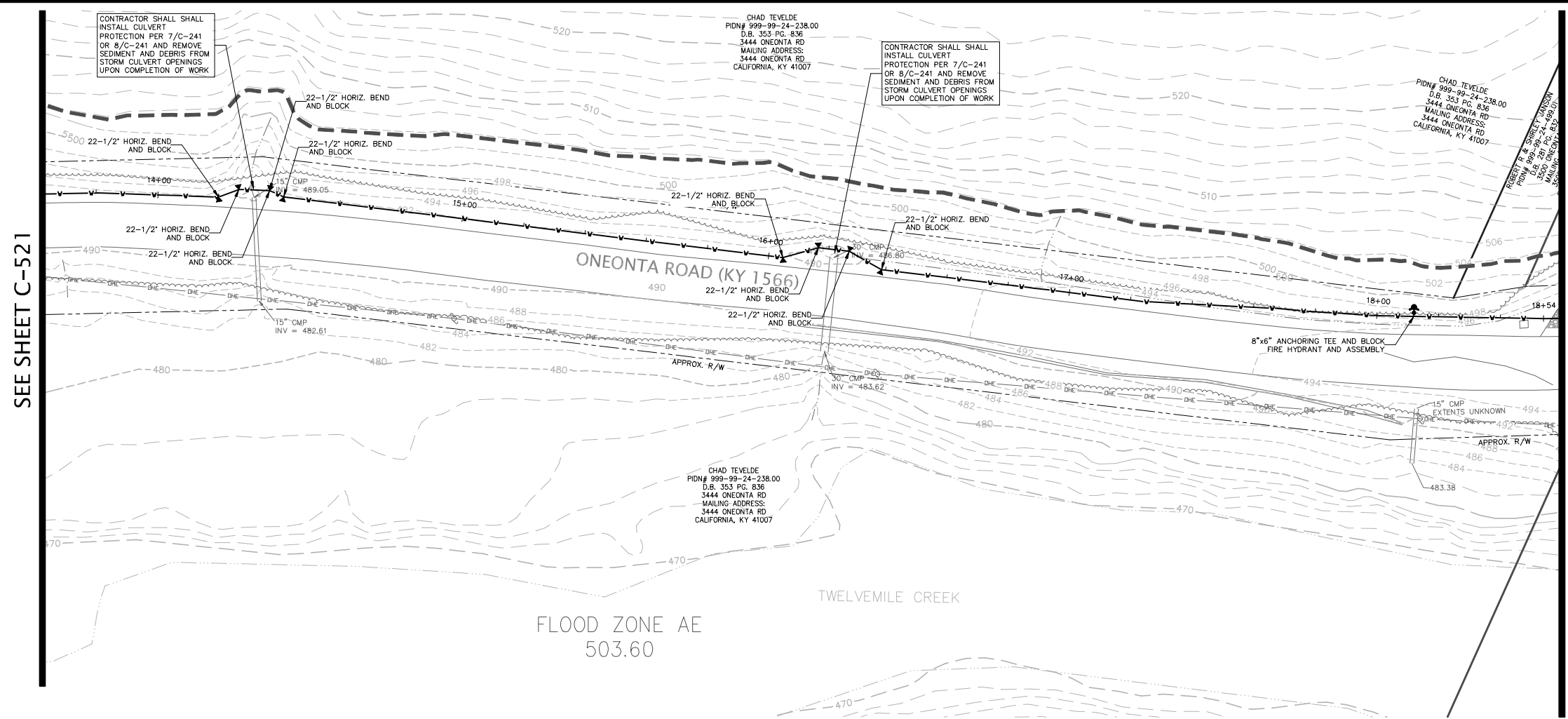


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SEPTEMBER 16, 2023
KENTUCKY TRANSPORTATION CABINET

DRAWN BY: SEAL
CHECKED BY: -
PROJECT MANAGER: KCH

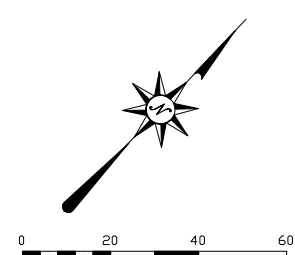
PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE
SHEET C-521



SEE SHEET C-521

SEE SHEET C-523



REVISIONS	DATE	#	ITEM

CARDINAL
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WILDER, KENTUCKY 41071
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PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
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ERLANGER, KY 41018-0640

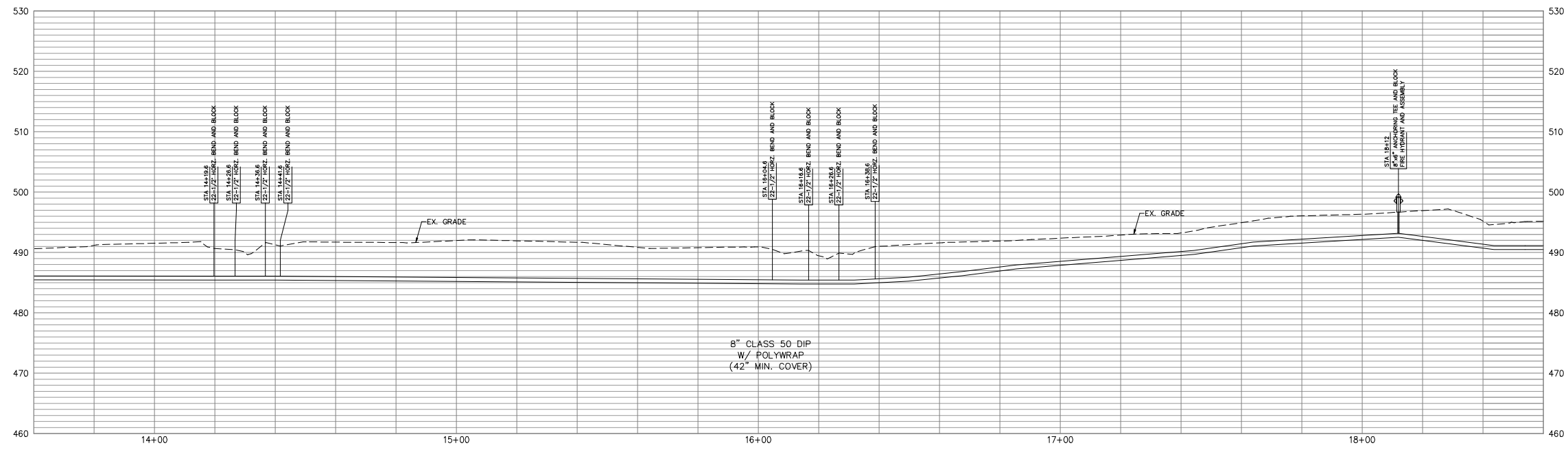
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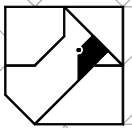
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CHECKED BY: -
PROJECT MANAGER: KCH

PROJECT NO. 23-001
SCALE AS NOTED
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PLAN & PROFILE
SHEET **C-522**

APPROVED
SEPTEMBER 16, 2023
KENTUCKY TRANSPORTATION CABINET

REVISIONS	DATE	#	ITEM



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PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

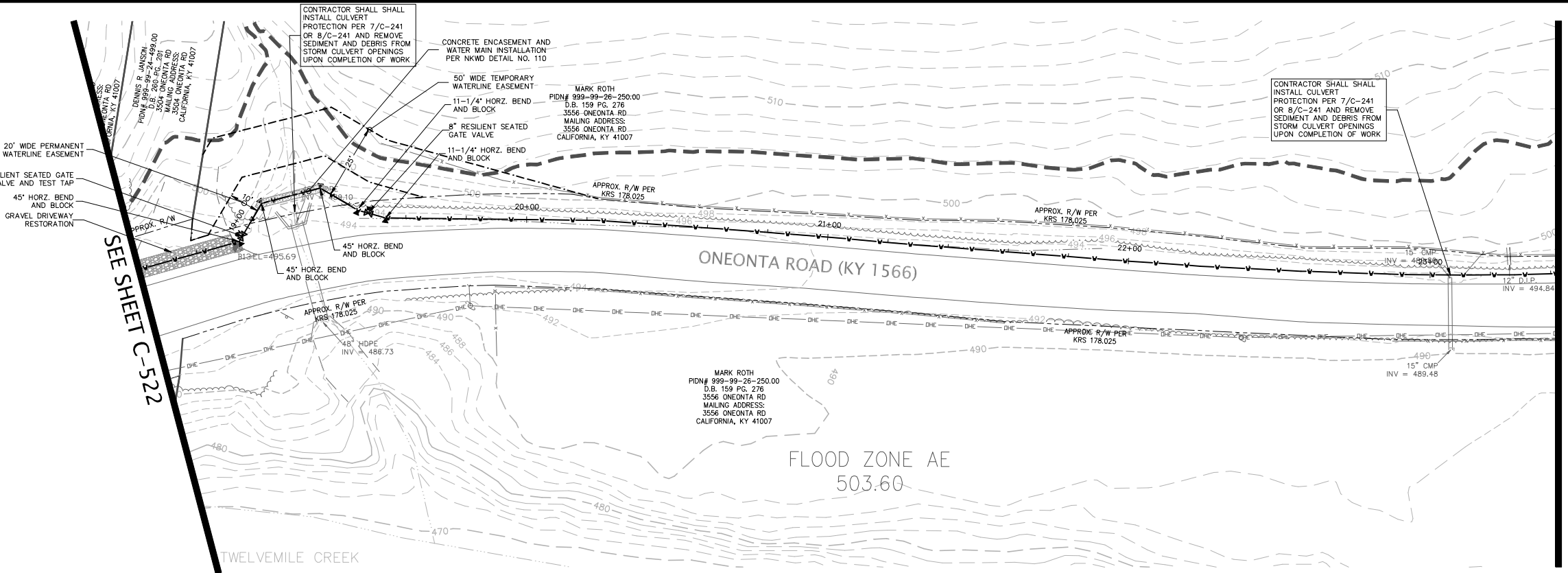
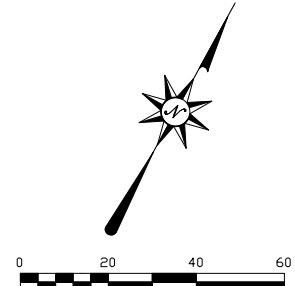
CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

DRAWN BY: SEAL
CHECKED BY: -
PROJECT MANAGER: KCH

PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE

SHEET **C-523**



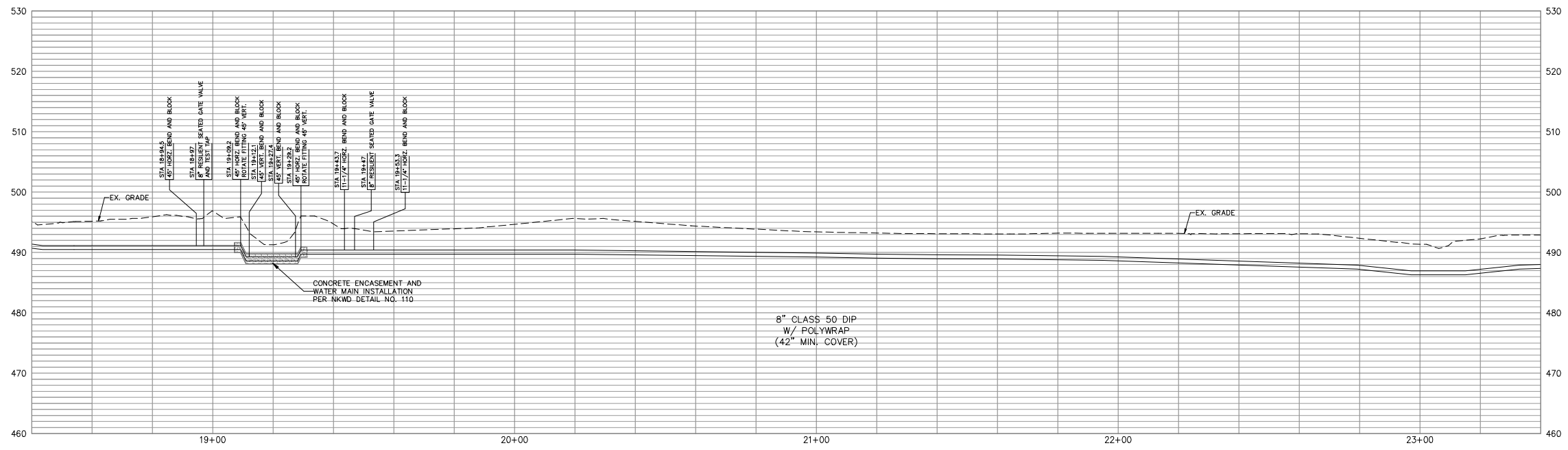
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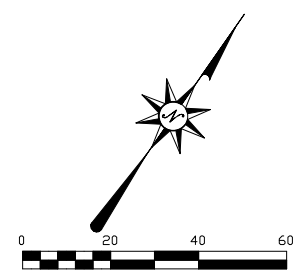
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CARDINAL
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PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
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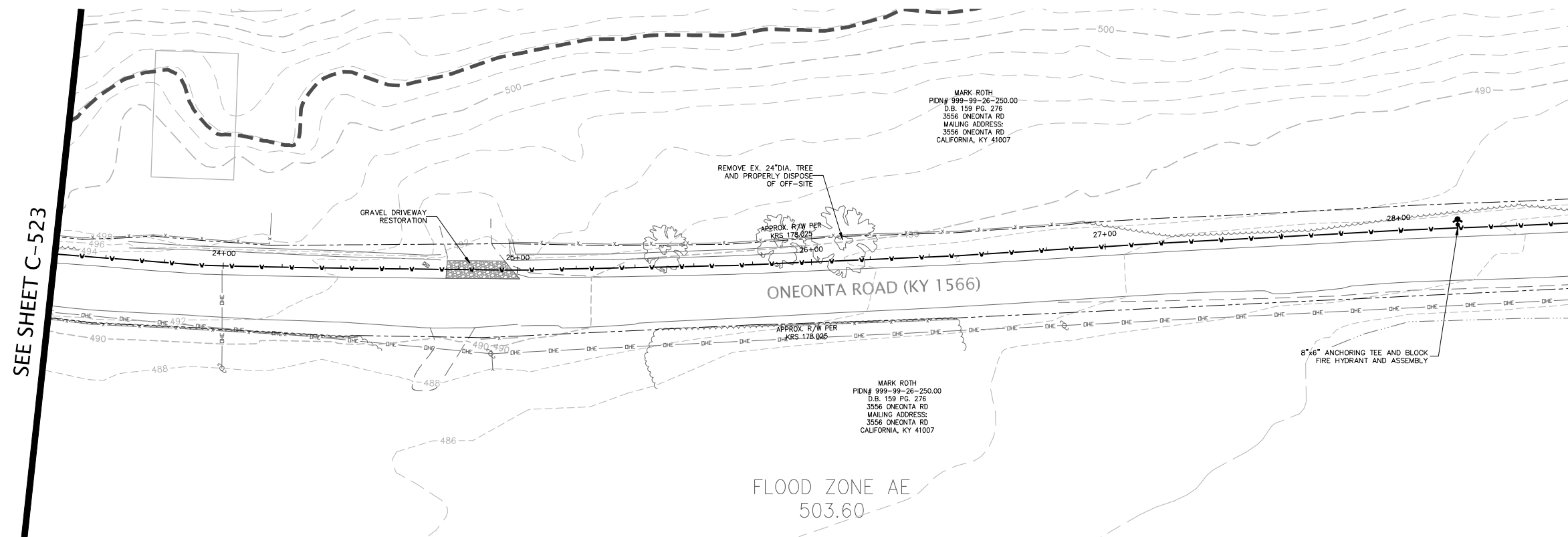
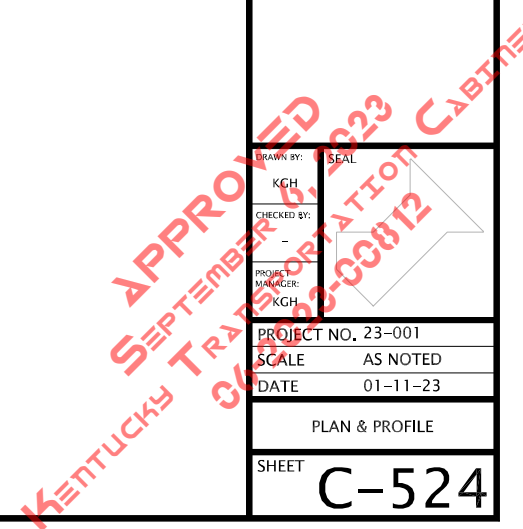
DRAWN BY: SEAL
KCH

CHECKED BY: -
KCH

PROJECT MANAGER: KCH

PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE
SHEET **C-524**



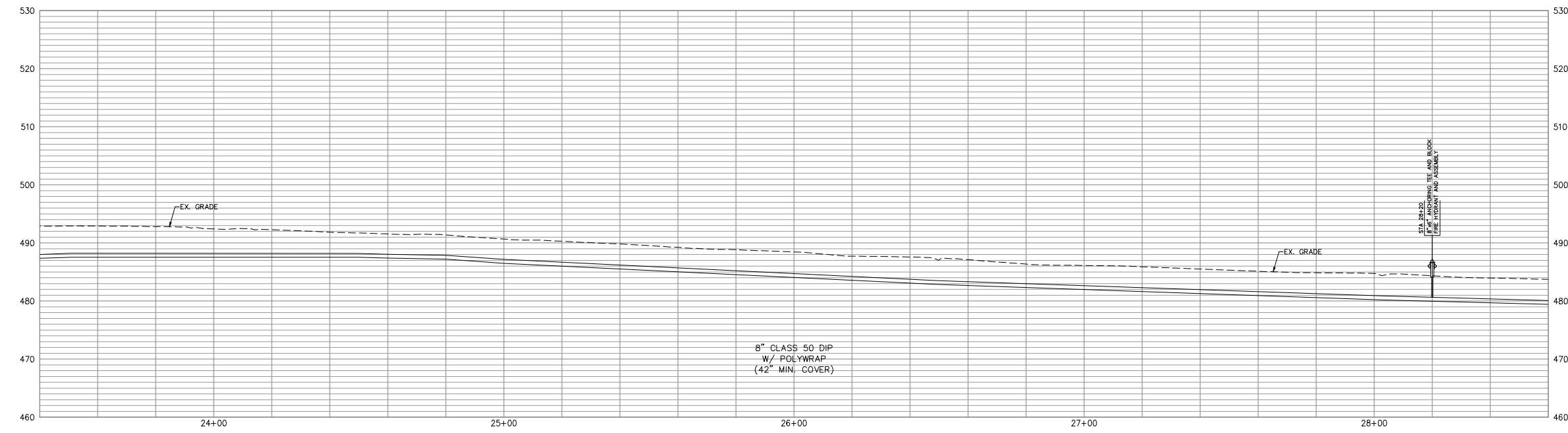
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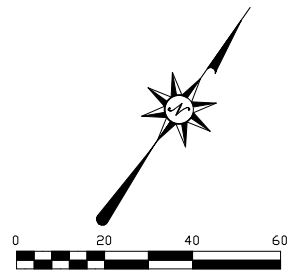
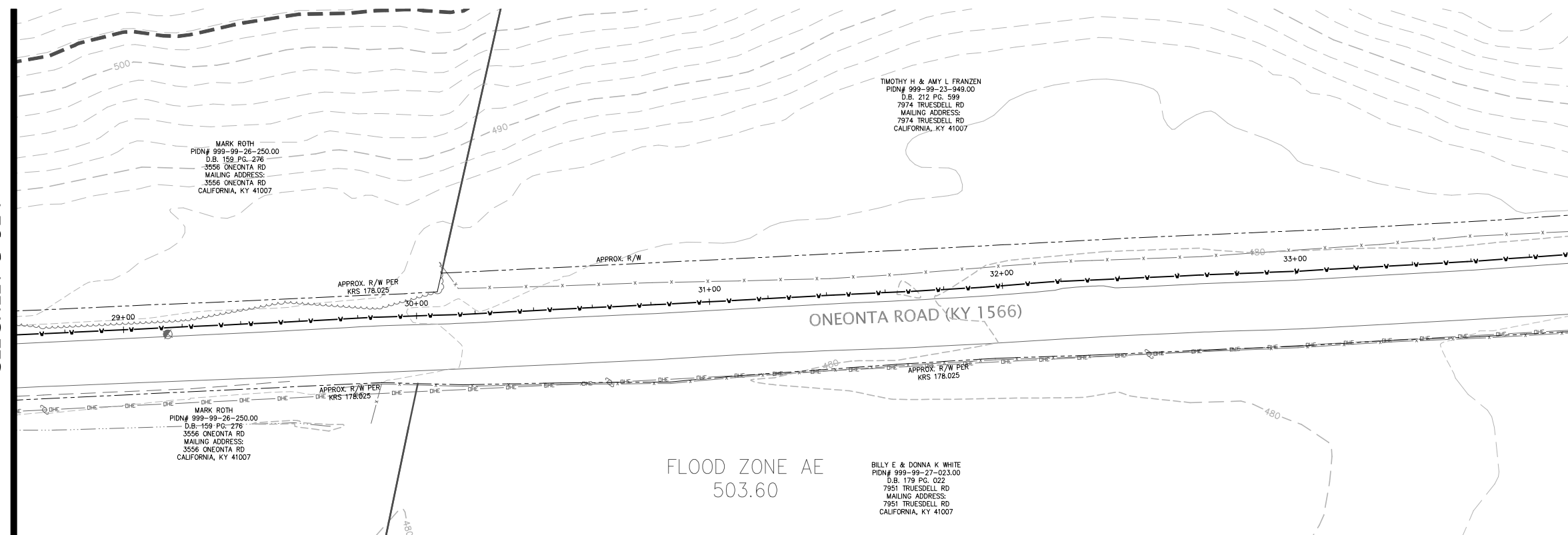
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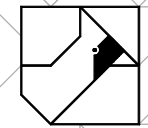
APPROVED SEPTEMBER 16, 2023 KENTUCKY TRANSPORTATION CABINET

SEE SHEET C-524

SEE SHEET C-526



REVISIONS	DATE	#	ITEM



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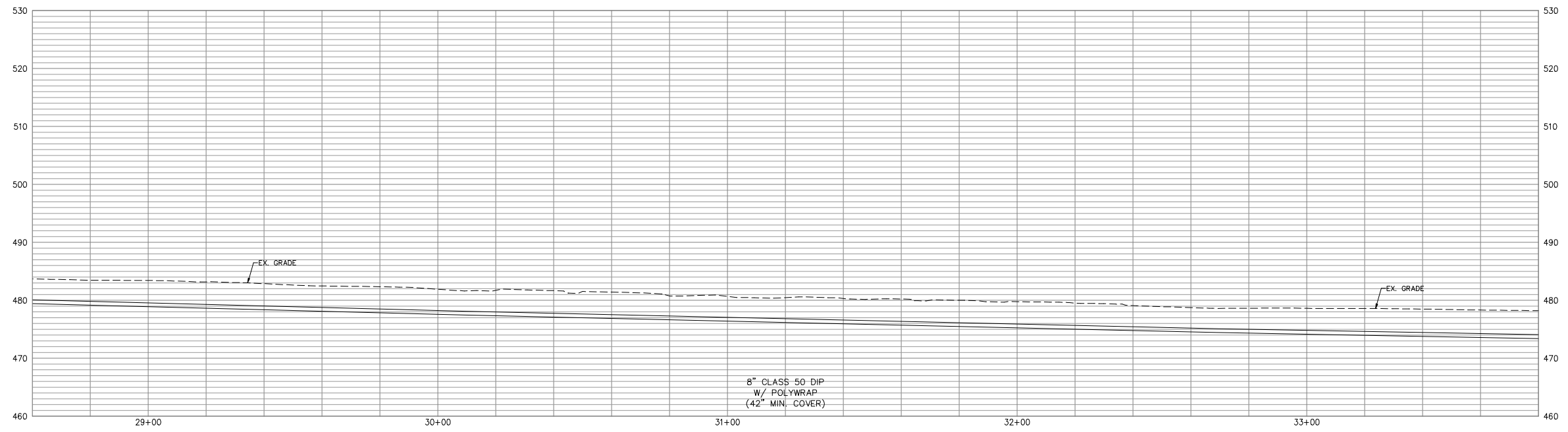
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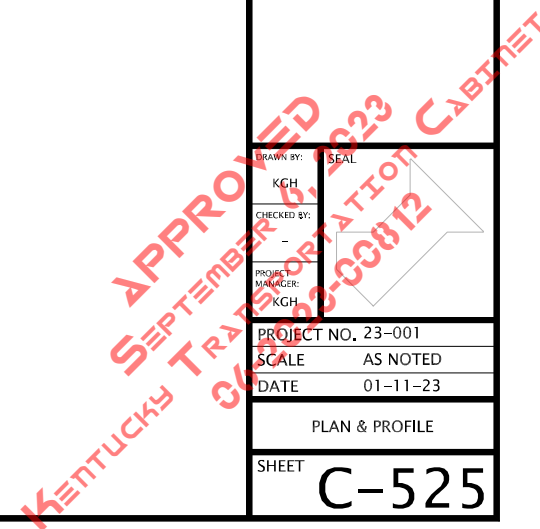
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SUB DISTRICT HB WATER MAIN EXTENSION

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2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

DRAWN BY: SEAL
CHECKED BY: -
PROJECT MANAGER: KCH

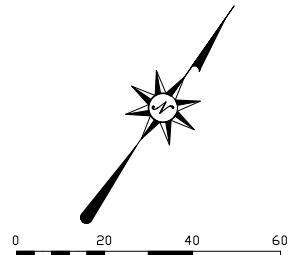
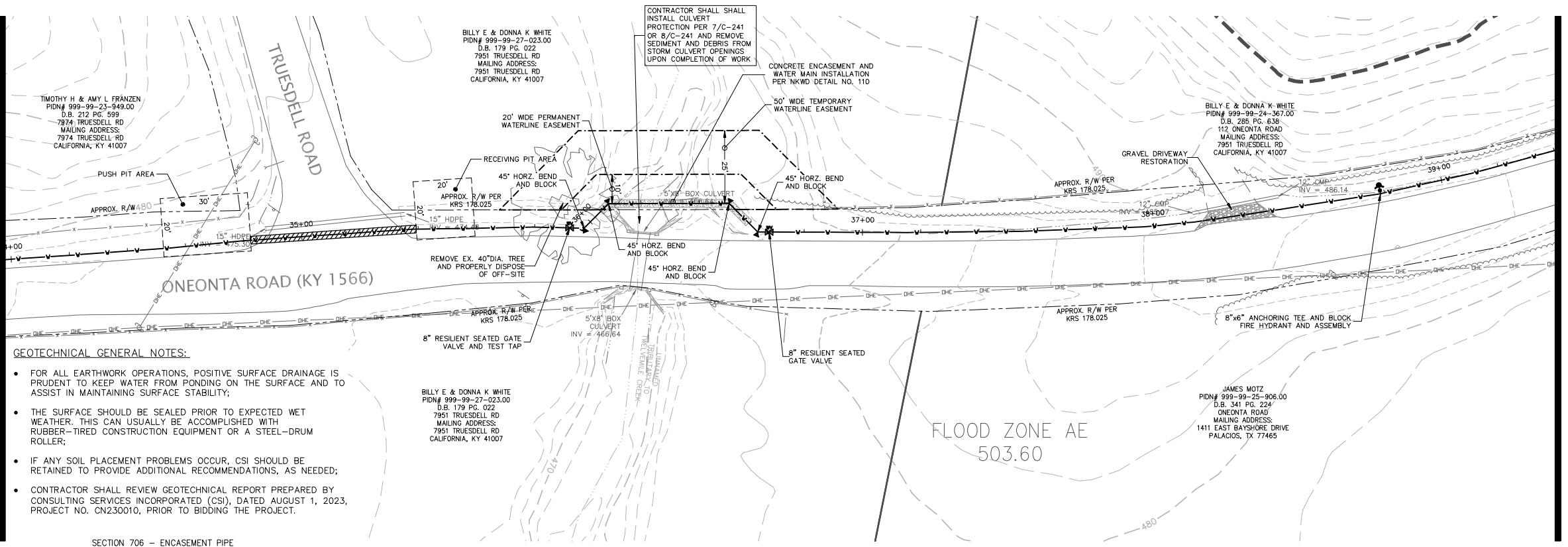
PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE
SHEET **C-525**



SEE SHEET C-525

SEE SHEET C-527



- GEOTECHNICAL GENERAL NOTES:**
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SECTION 706 - ENCASMENT PIPE

706.01 DESCRIPTION: Provide an encasement pipe, open cut or a bored and jacked pipe under a roadway or other sensitive area.

706.02 MATERIALS:

706.02.01 Welded and Seamless Steel Pipe. Conform to the following table for the minimum wall thickness for steel pipe.

MINIMUM WALL THICKNESS FOR STEEL PIPE	
Nominal Diameter (inches)	Wall Thickness (inches)
0.375	0.375
0.500	0.500
0.500	0.500
0.532	0.532
0.625	0.625

706.03 CONSTRUCTION:

706.03.01 Open Cut. Install the pipe according to the manufacturer's specifications and installation procedures. When the Engineer requests, provide a manufacturer's technical representative to assist in pipe installation.

706.03.02 Bore and Jack. Construct access pits on both sides of the area to be tunneled, one for the boring equipment and one on the receiving end. Use a boring and jacking machine that is capable of keeping the advanced bore hole within the required alignment. Maintain the alignment of the guide rails to the proper line and grade, immediately correcting any possible displacement, until completing the boring and jacking operation.

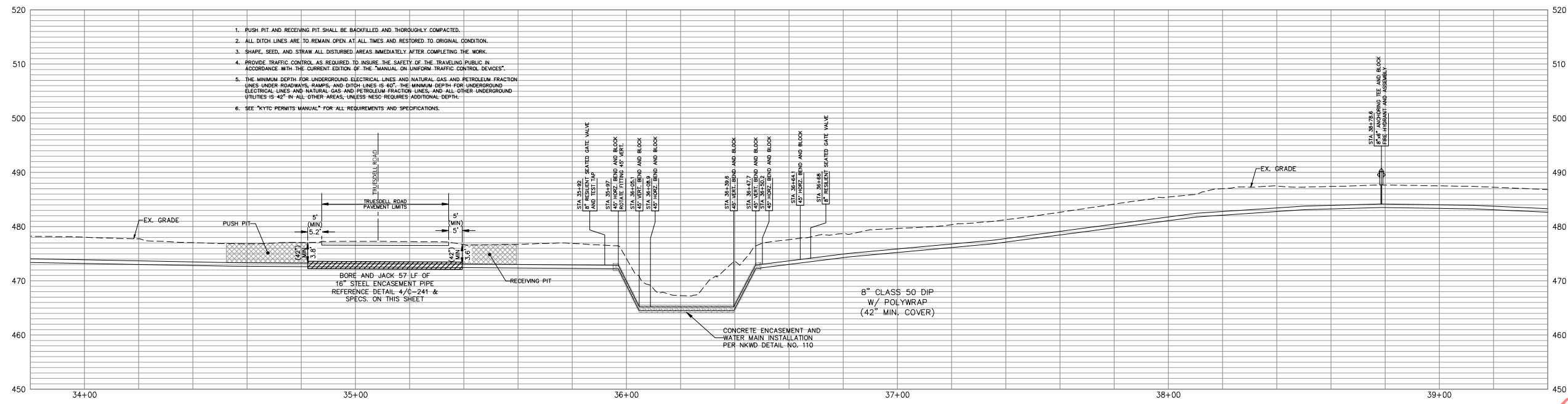
Use a smooth casing pipe of sufficient strength and diameter to provide a tight fit against the earth sides of the bore hole and of sufficient size to allow installation of the carrier pipe and any required positive anchorage. Weld the joints with a continuous circumferential weld. Frequently check the line and grade and adjust the alignment as practical. When a physical obstruction or other situation requires the abandonment of a partially completed bore hole and the starting of a new hole, backfill as the Engineer directs.

MISC. WATER MAIN CONSTRUCTION NOTE

1. THE COST FOR TESTING THE WATER MAIN, TEMPORARY FLUSHING DEVICES, TEMPORARY PLUGS AND BLOCKS BE INCIDENTAL TO THE PROJECT.

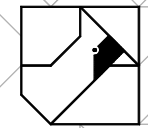
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REVISIONS

DATE	#	ITEM



CARDINAL
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ONE MOOCK ROAD
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FAX: (505) 581-0636

WEBSITE: <http://www.cardinalengineering.net>

PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

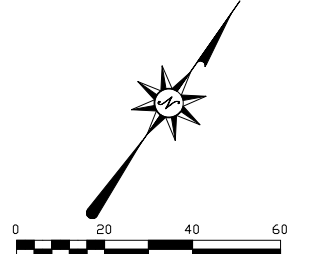
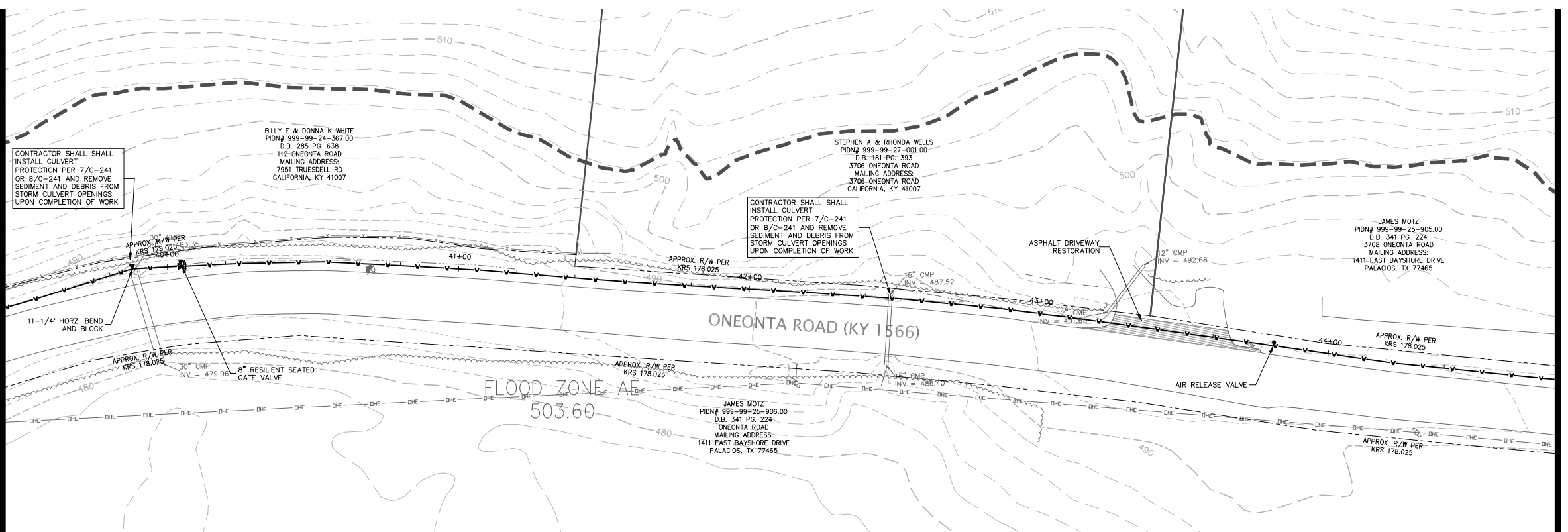
CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

DRAWN BY: SEAL
CHECKED BY: KCH
PROJECT MANAGER: KCH

PROJECT NO.: 23-001
SCALE: AS NOTED
DATE: 01-11-23

PLAN & PROFILE
SHEET C-526

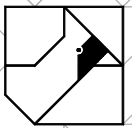
APPROVED
SEPTEMBER 16, 2023
KENTUCKY TRANSPORTATION CABINET



SEE SHEET C-526

SEE SHEET C-528

REVISIONS	DATE	#	ITEM



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MISC. WATER MAIN CONSTRUCTION NOTE

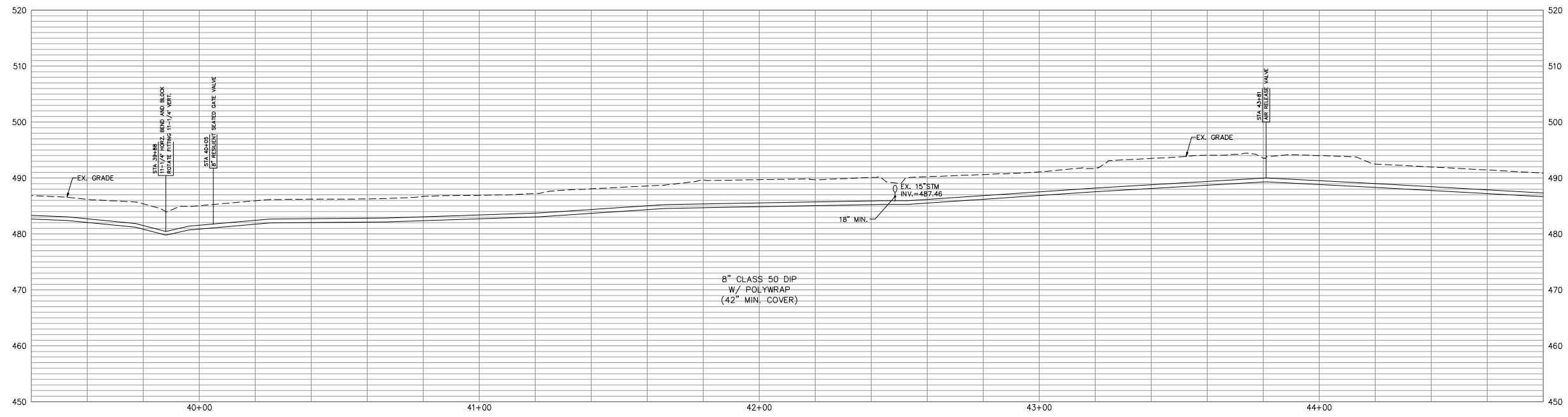
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PROJECT:
**WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION**

CLIENT:
**NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640**

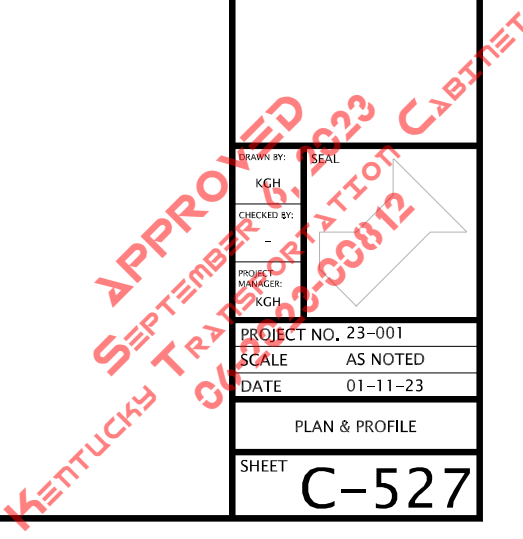


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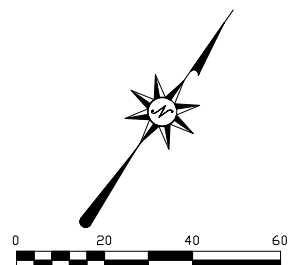
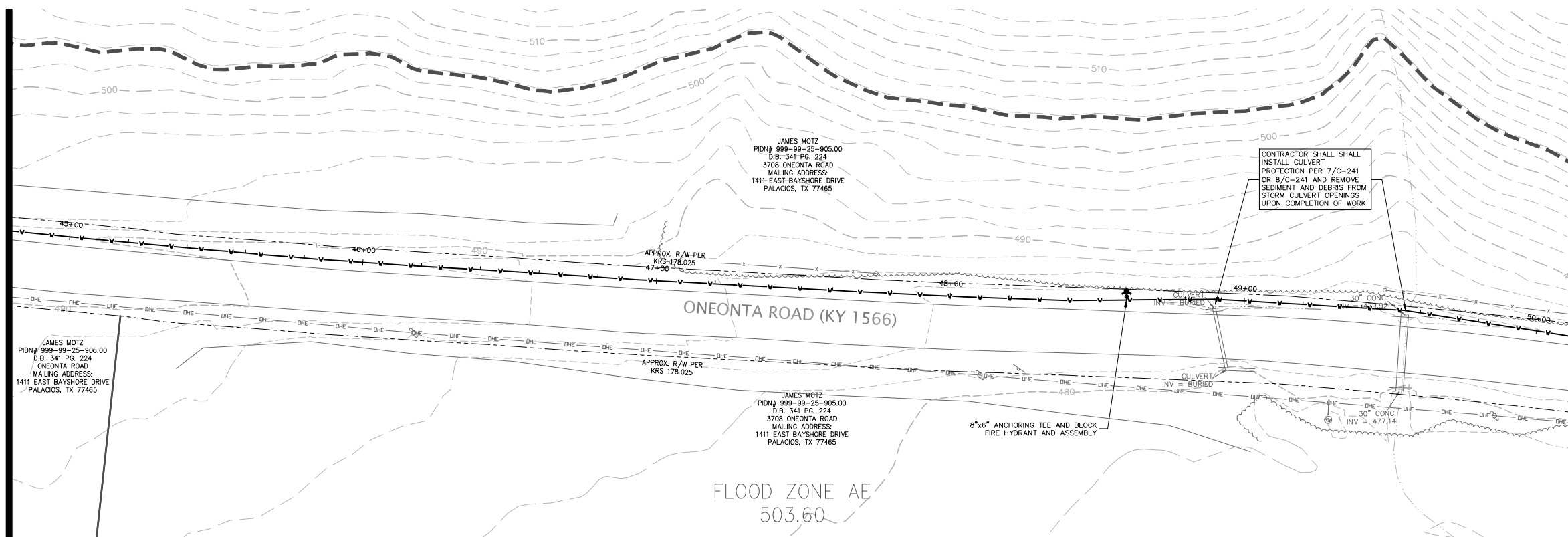
PLAN & PROFILE

SHEET **C-527**

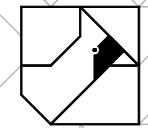


SEE SHEET C-527

SEE SHEET C-529



REVISIONS	DATE	#	ITEM



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PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
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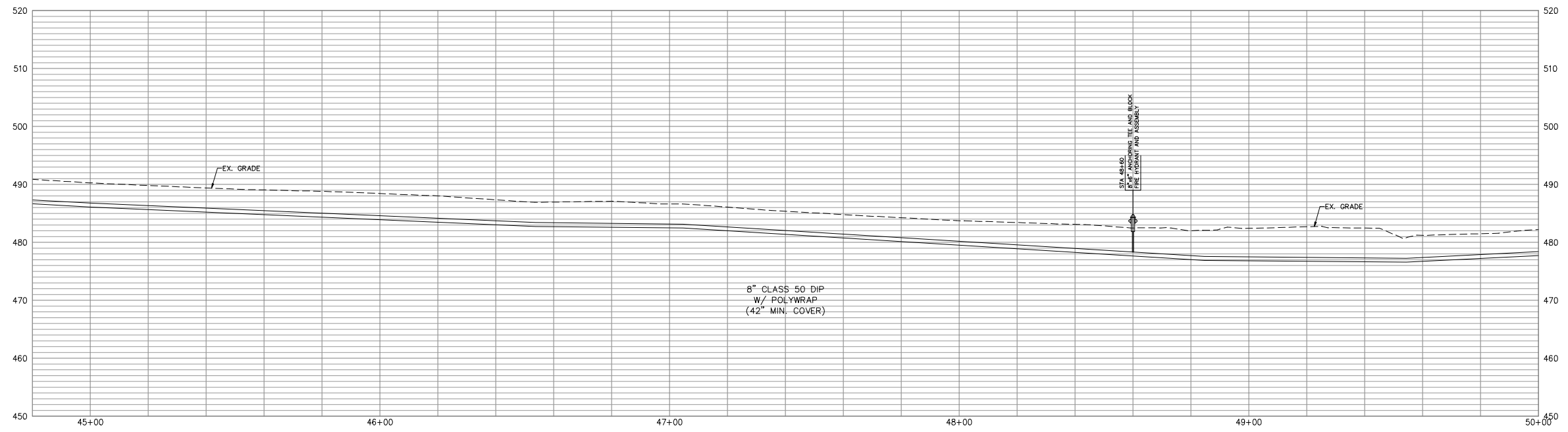
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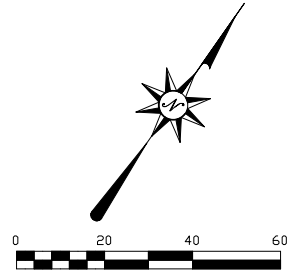
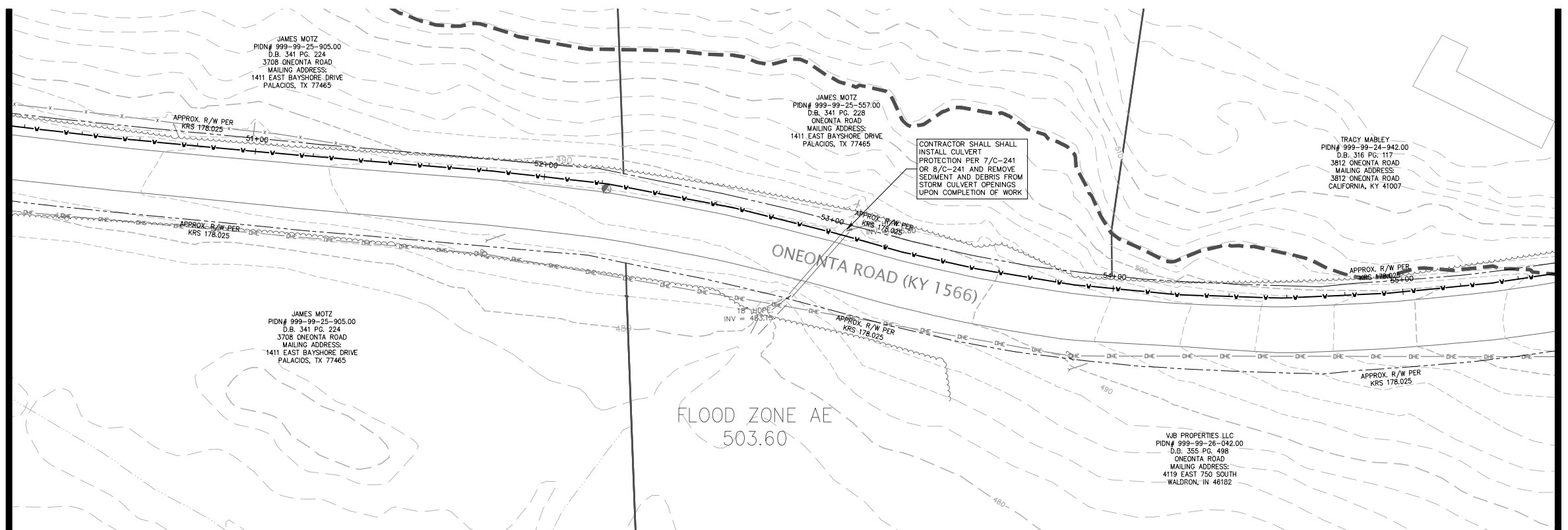
DRAWN BY: SEAL
KCH
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PROJECT MANAGER: KCH

PROJECT NO. 23-001
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PLAN & PROFILE
SHEET **C-528**

SEE SHEET C-528

SEE SHEET C-530



GEOTECHNICAL GENERAL NOTES:

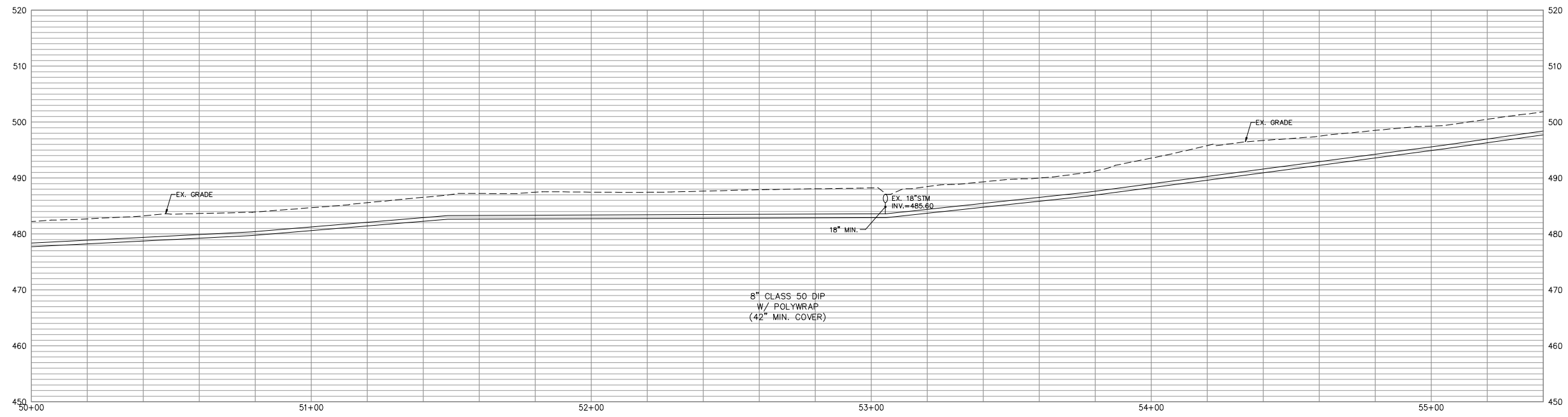
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WEBSITE: <http://www.cardinalengineering.net>

PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

DRAWN BY: SEAL

CHECKED BY: -

PROJECT MANAGER: KCH

PROJECT NO.: 23-001

SCALE: AS NOTED

DATE: 01-11-23

PLAN & PROFILE

SHEET C-529

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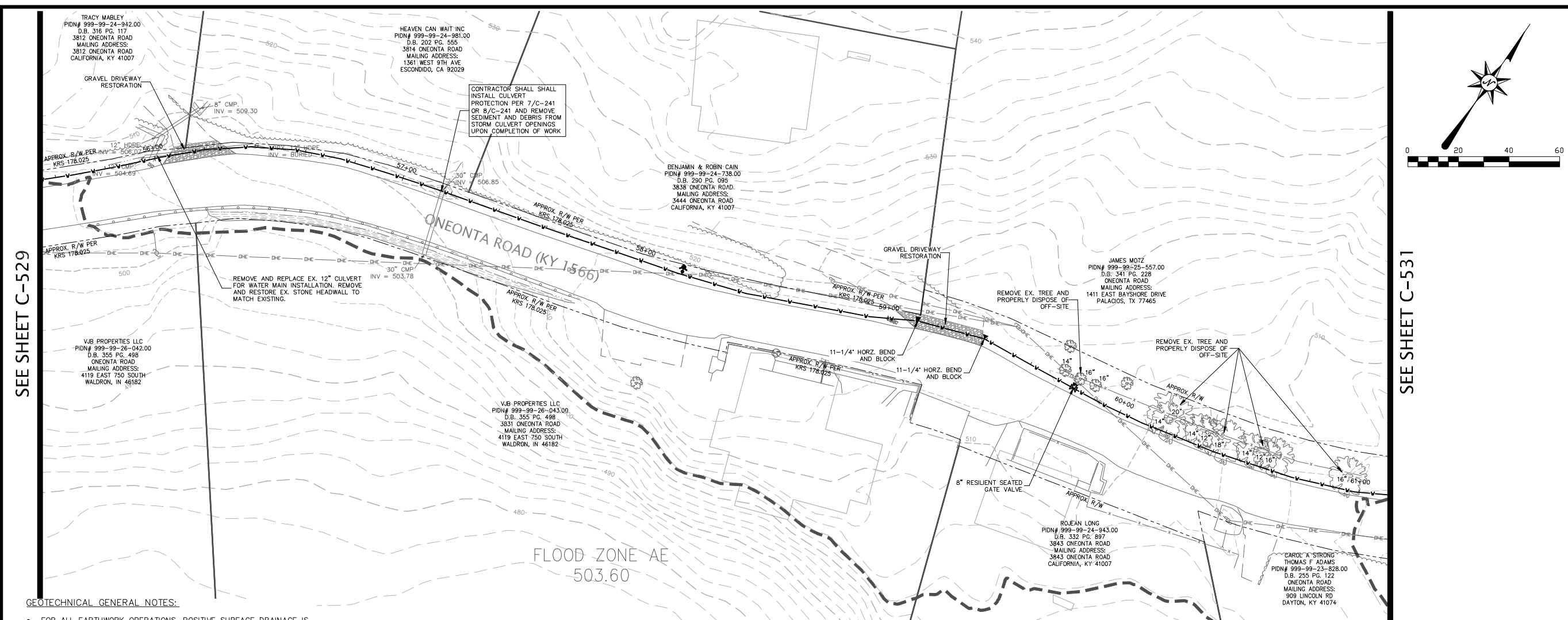
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PLAN & PROFILE

SHEET **C-530**



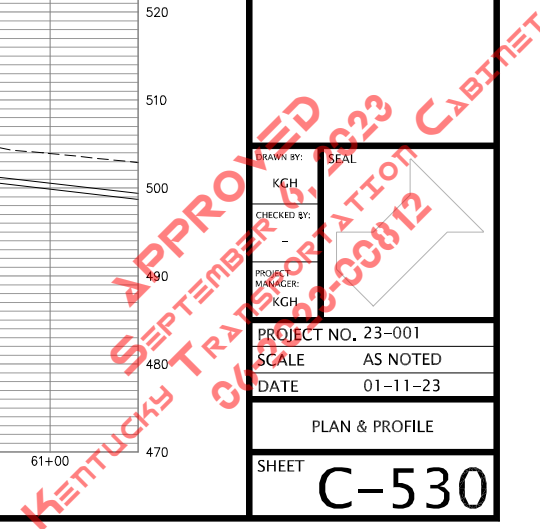
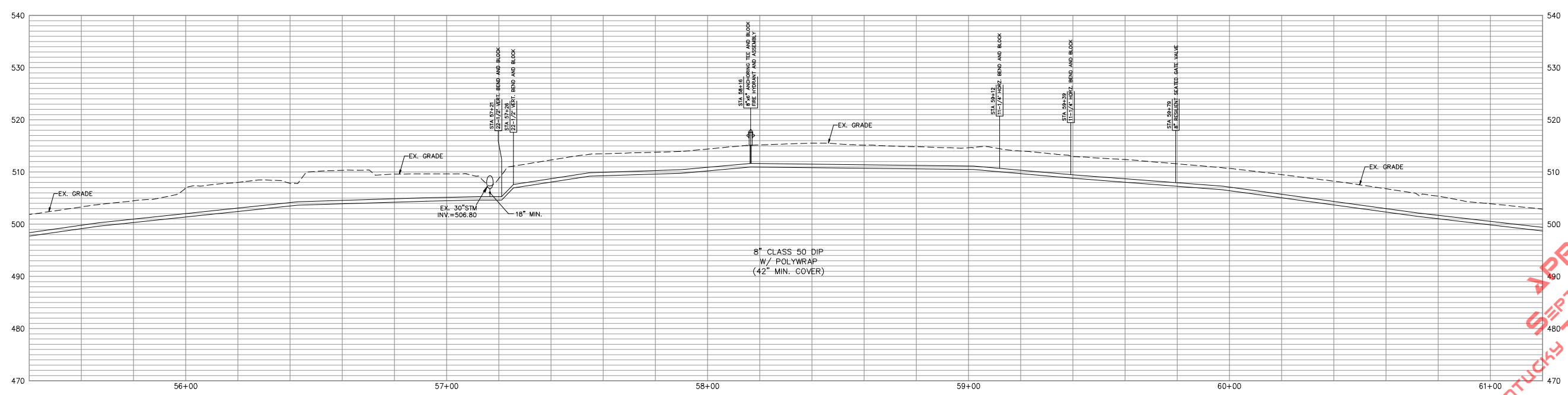
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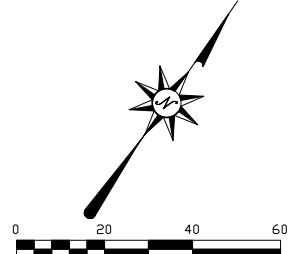
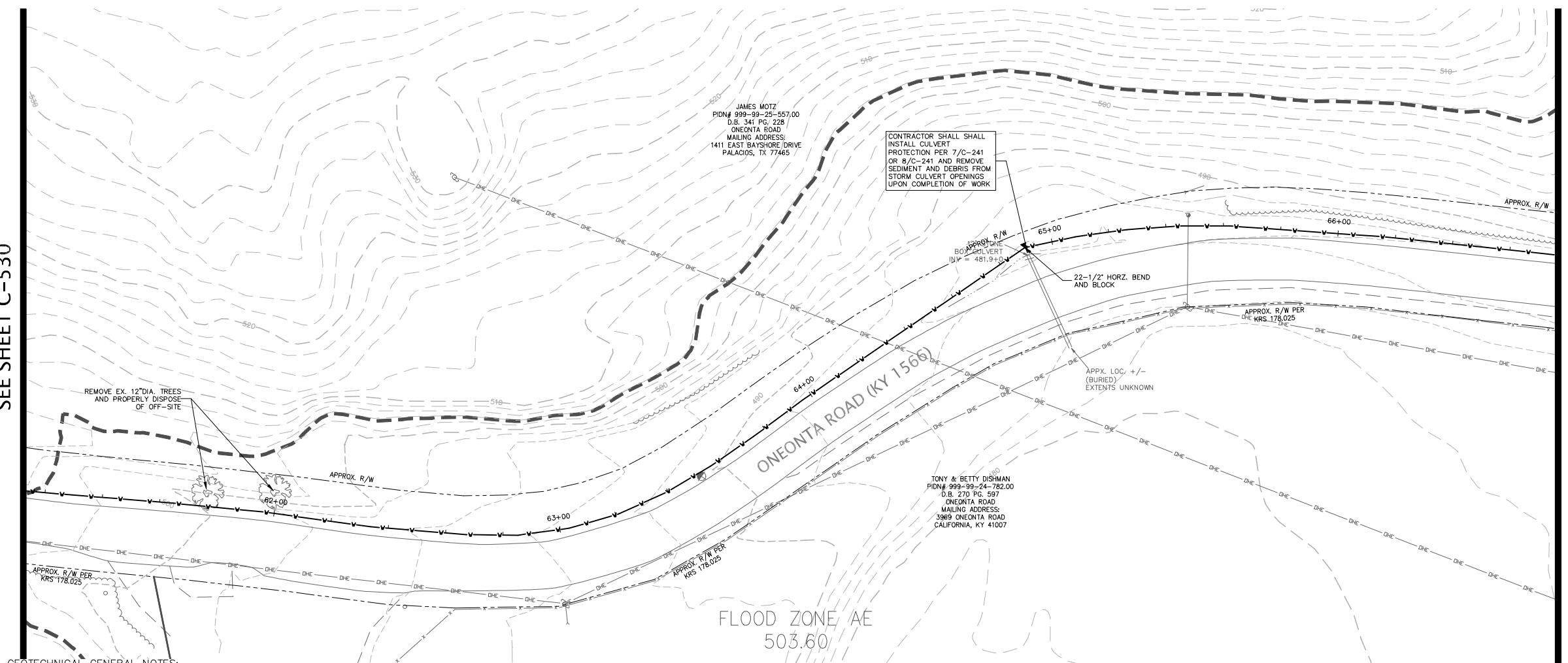
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SEE SHEET C-530

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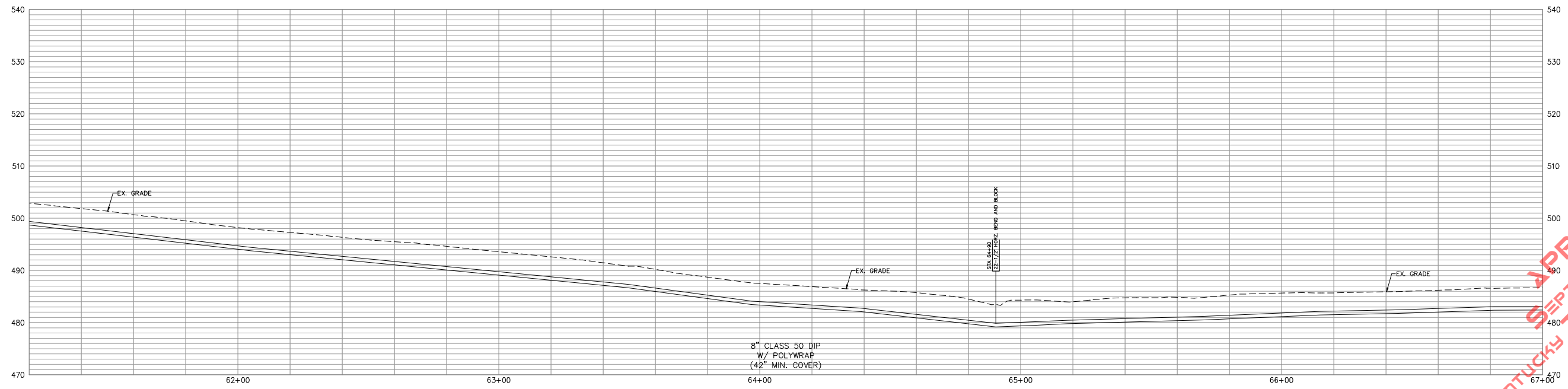
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PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
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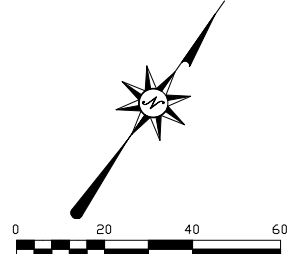
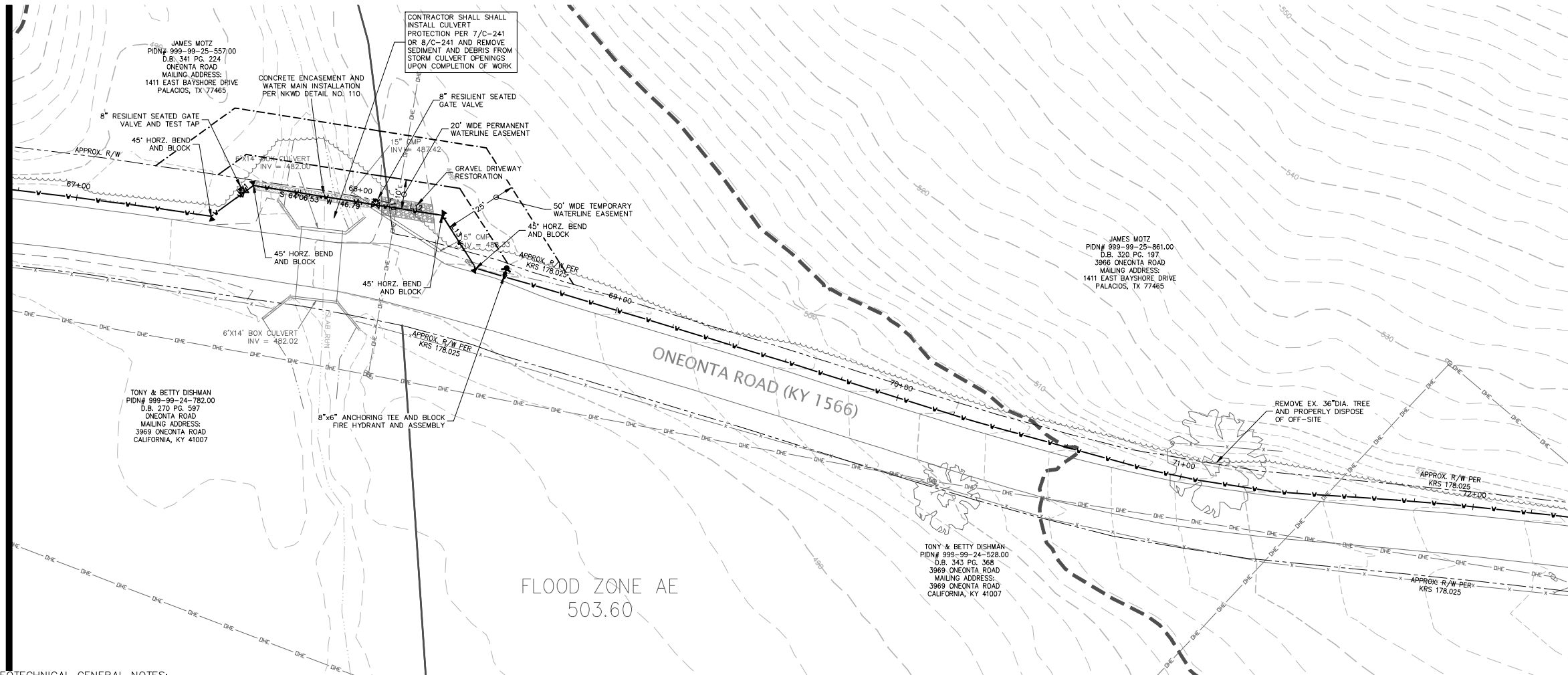
PLAN & PROFILE

SHEET C-531

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SEPTEMBER 16, 2023
KENTUCKY TRANSPORTATION CABINET

SEE SHEET C-531

SEE SHEET C-533



GEOTECHNICAL GENERAL NOTES:

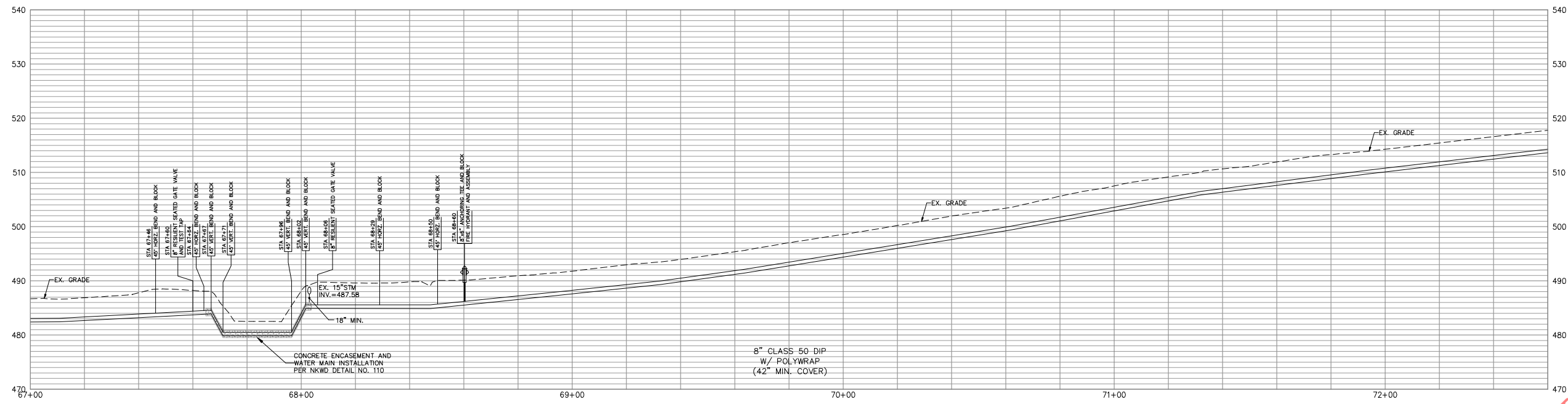
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PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

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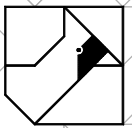
DRAWN BY: SEAL
CHECKED BY: KCH
PROJECT MANAGER: KCH

PROJECT NO. 23-001
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PLAN & PROFILE

SHEET **C-532**

REVISIONS	DATE	#	ITEM



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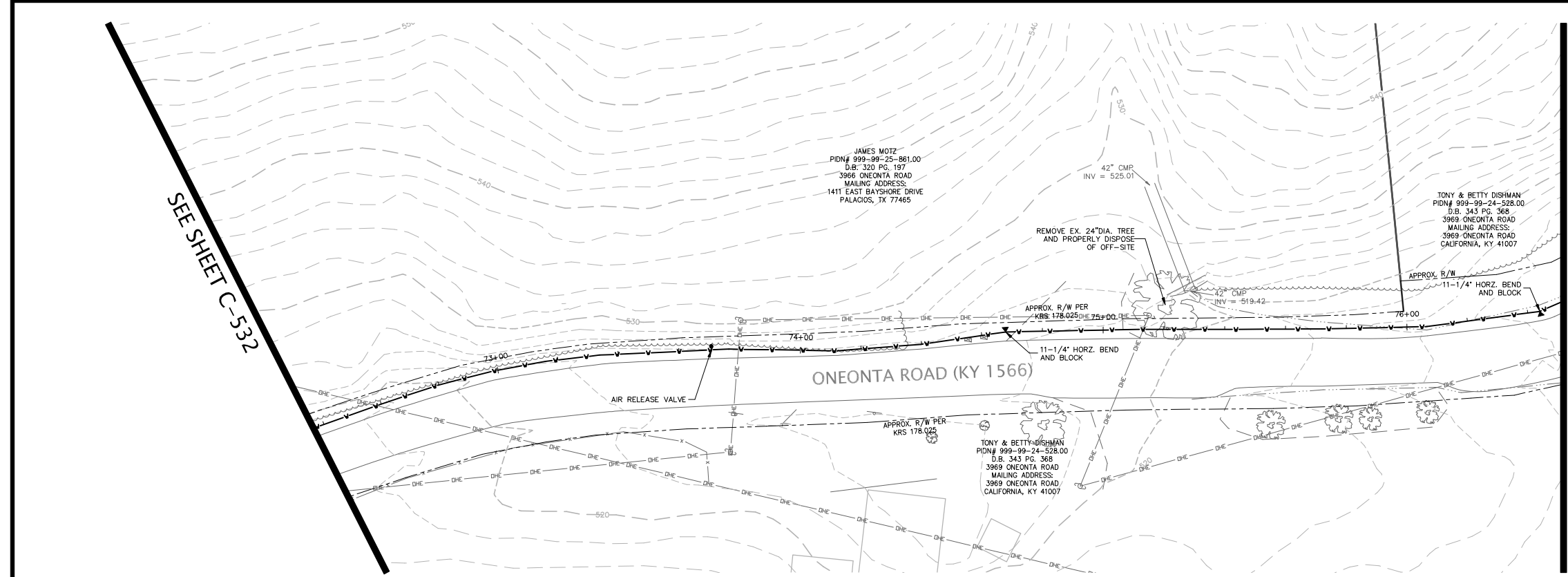
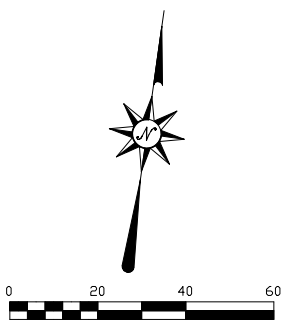
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PLAN & PROFILE
SHEET **C-533**



SEE SHEET C-534

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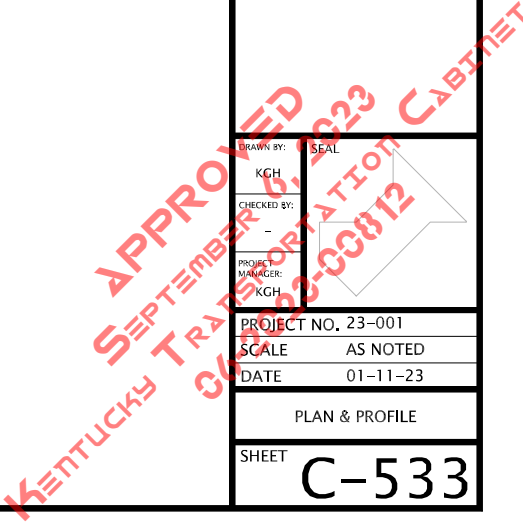
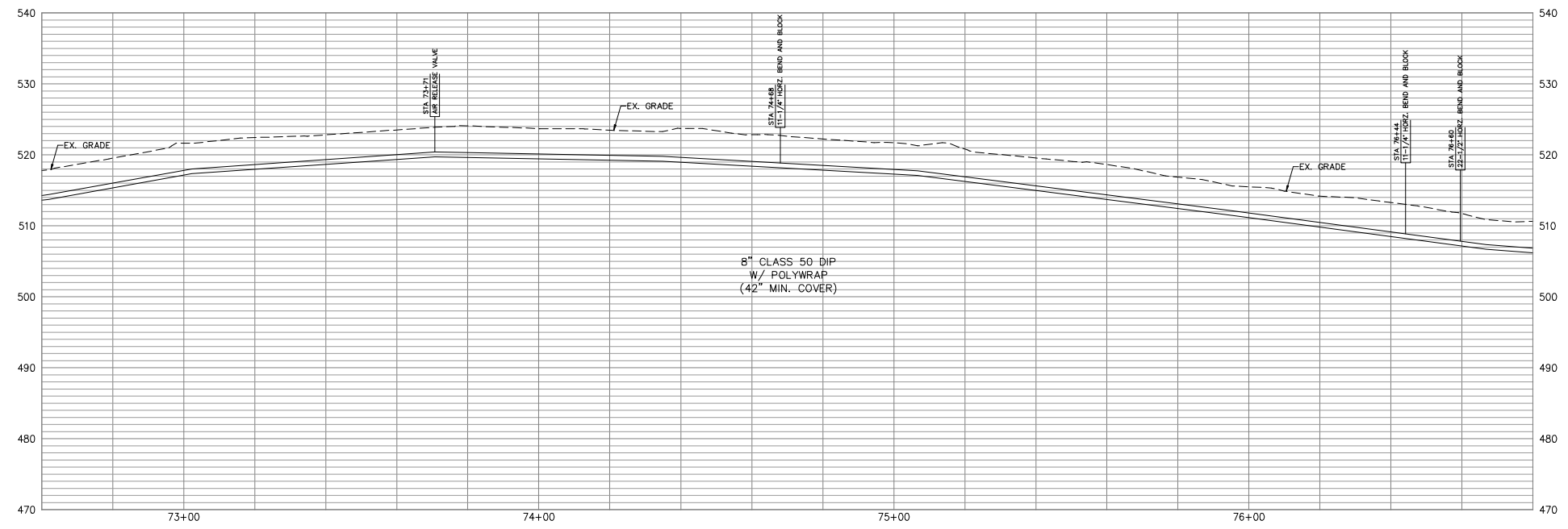
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- THE SURFACE SHOULD BE SEALED PRIOR TO EXPECTED WET WEATHER. THIS CAN USUALLY BE ACCOMPLISHED WITH RUBBER-TIRED CONSTRUCTION EQUIPMENT OR A STEEL-DRUM ROLLER;
- IF ANY SOIL PLACEMENT PROBLEMS OCCUR, CSI SHOULD BE RETAINED TO PROVIDE ADDITIONAL RECOMMENDATIONS, AS NEEDED;
- CONTRACTOR SHALL REVIEW GEOTECHNICAL REPORT PREPARED BY CONSULTING SERVICES INCORPORATED (CSI), DATED AUGUST 1, 2023, PROJECT NO. CN230010, PRIOR TO BIDDING THE PROJECT.

MISC. WATER MAIN CONSTRUCTION NOTE

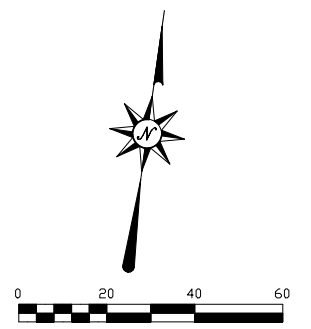
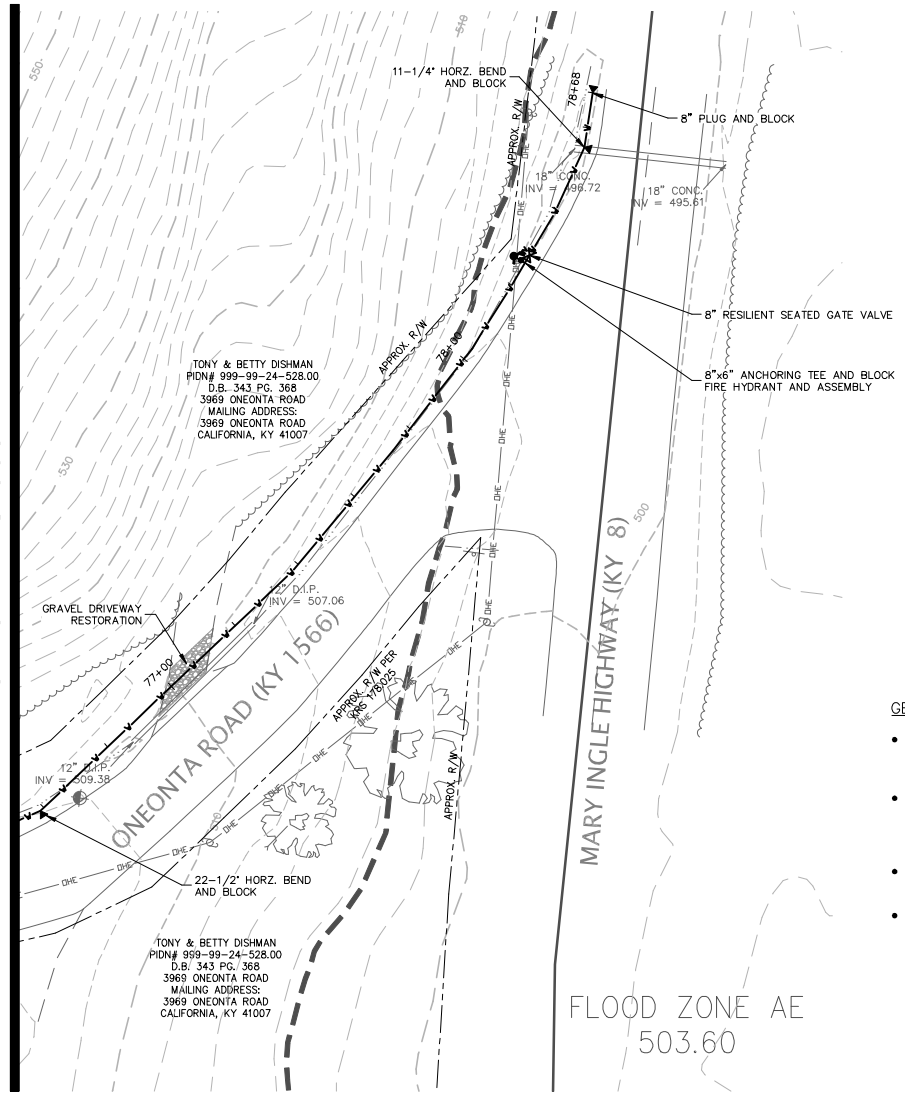
1. THE COST FOR TESTING THE WATER MAIN, TEMPORARY FLUSHING DEVICES, TEMPORARY PLUGS AND BLOCKS BE INCIDENTAL TO THE PROJECT.

DITCH MAINTENANCE/RESTORATION NOTES:

1. CONTRACTOR SHALL ESTABLISH POSITIVE DRAINAGE IN DITCH LINE AT THE END OF EACH WORKING DAY. DISTURBED SECTIONS OF DITCH SHALL BE RESTORED WITH EROSION CONTROL BLANKET PER KYTC STANDARD DRAWING RD-041 (3/C-241). MATERIALS, EQUIPMENT, AND FILL DIRT SHALL NOT BE STOCKPILED IN DITCH.



SEE SHEET C-533



GEOTECHNICAL GENERAL NOTES:

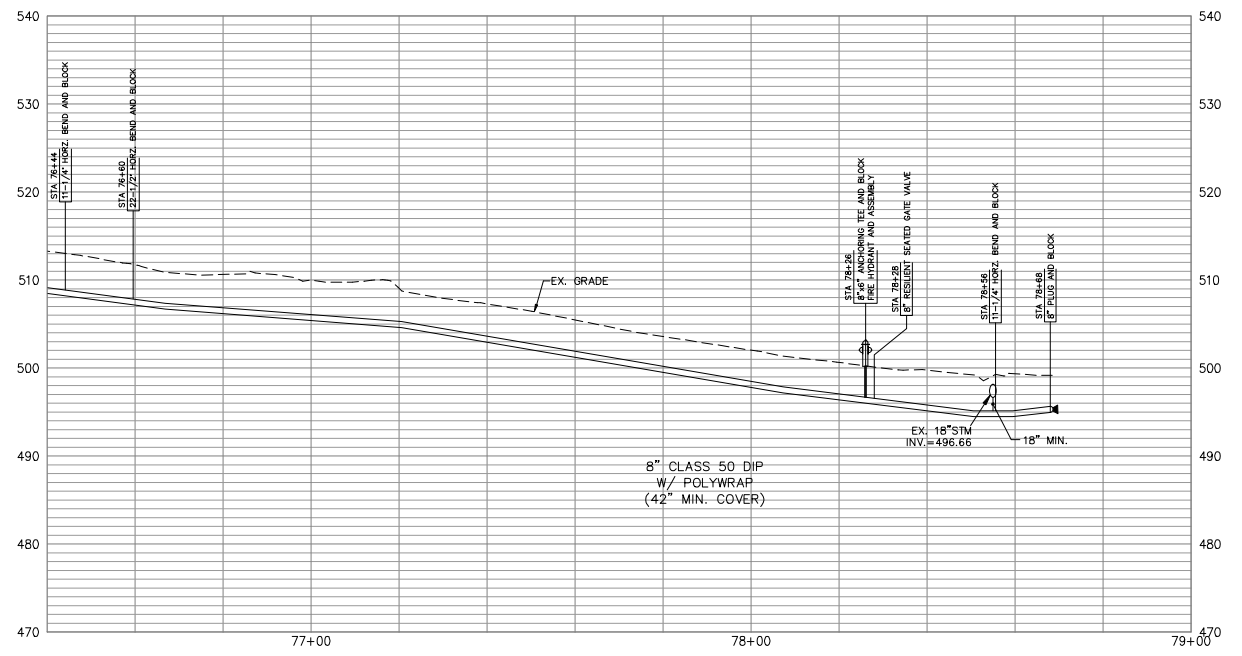
- FOR ALL EARTHWORK OPERATIONS, POSITIVE SURFACE DRAINAGE IS PRUDENT TO KEEP WATER FROM PONDING ON THE SURFACE AND TO ASSIST IN MAINTAINING SURFACE STABILITY;
- THE SURFACE SHOULD BE SEALED PRIOR TO EXPECTED WET WEATHER. THIS CAN USUALLY BE ACCOMPLISHED WITH RUBBER-TIRED CONSTRUCTION EQUIPMENT OR A STEEL-DRUM ROLLER;
- IF ANY SOIL PLACEMENT PROBLEMS OCCUR, CSI SHOULD BE RETAINED TO PROVIDE ADDITIONAL RECOMMENDATIONS, AS NEEDED;
- CONTRACTOR SHALL REVIEW GEOTECHNICAL REPORT PREPARED BY CONSULTING SERVICES INCORPORATED (CSI), DATED AUGUST 1, 2023, PROJECT NO. CN230010, PRIOR TO BIDDING THE PROJECT.

MISC. WATER MAIN CONSTRUCTION NOTE

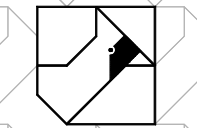
1. THE COST FOR TESTING THE WATER MAIN, TEMPORARY FLUSHING DEVICES, TEMPORARY PLUGS AND BLOCKS BE INCIDENTAL TO THE PROJECT.

DITCH MAINTENANCE/RESTORATION NOTES:

1. CONTRACTOR SHALL ESTABLISH POSITIVE DRAINAGE IN DITCH LINE AT THE END OF EACH WORKING DAY. DISTURBED SECTIONS OF DITCH SHALL BE RESTORED WITH EROSION CONTROL BLANKET PER KYTC STANDARD DRAWING RDI-041 (3/C-241). MATERIALS, EQUIPMENT, AND FILL DIRT SHALL NOT BE STOCKPILED IN DITCH.



REVISIONS	DATE	#	ITEM



CARDINAL
ENGINEERING
LAND SURVEYING
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE: (502) 581-9600
FAX: (502) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

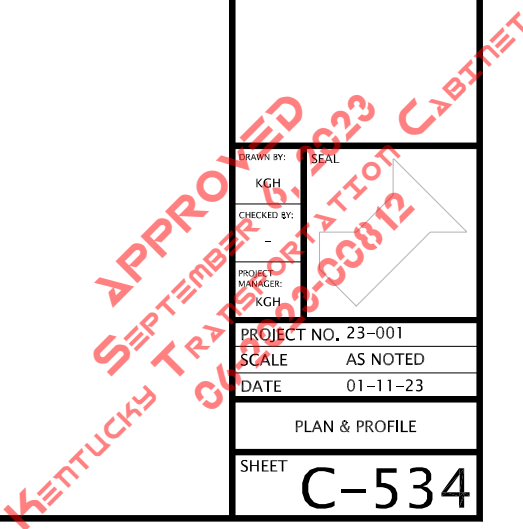
PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

DRAWN BY: SEAL
KCH
CHECKED BY: -
PROJECT MANAGER: KCH

PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE
SHEET **C-534**





**KYTC Division of Maintenance
Permits Branch
District 6**



ENCROACHMENT PERMIT GENERAL NOTES & SPECIFICATIONS

YOU MUST NOTIFY KYTC BEFORE BEGINNING ANY WORK IN THE RIGHT-OF-WAY. *Failure to alert KYTC of working within the right of way may result in permit revocation.*

Two ways to notify KYTC of your construction start date:

By Email: KYTCD6PERMITS@KY.GOV

**must include permit number and county in subject line*

By Phone: 859-341-2700

**must know permit number and county when calling*

YOU MUST ALSO NOTIFY KYTC UPON COMPLETION OF WORK WITHIN RIGHT-OF-WAY. *Failure to alert KYTC of completion of work may result in withholding release of any associated bonds.*



APPROVED
SEPTEMBER 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00812

I. SAFETY**A. General Provisions**

- All signs and control of traffic shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways, latest edition, Part VI, and safety requirements shall comply with the Permits Manual. Federal law requires that traffic control shall be implemented in accordance with MUTCD standards and KYTC's Standard Specifications for Road and Bridge Construction (KYTC SSRBC) under the supervision of a certified Work Zone Traffic Control Supervisor.
- All work necessary in shoulder or ditch line areas of a state highway shall be scheduled to be promptly completed so that hazards adjacent to the traveled way are kept to an absolute minimum.
- No more than one (1) traveled-lane shall be blocked or obstructed during normal working hours. All signs and flaggers during lane closure shall conform to the MUTCD. The traveled-way and shoulders shall be kept clear of mud and other construction debris at all times during construction of the permitted facility. No non-construction equipment or vehicles or office trailers shall be allowed on the right of way during working hours. The right of way shall be left free and clear of equipment, material, and vehicles during non-working hours.
- When necessary to block one (1) traveled-lane of a state highway, the normal working hours shall be as directed by the Department. No lanes shall be blocked or obstructed during adverse weather conditions (rain, snow, fog, etc.) without specific permission from the Department.
- Working hours shall be between 9:00 AM and 3:00 PM. Further date and time restrictions are as follows:

B. Explosives

- No explosive devices or explosive material shall be used within state right of way without proper license and approval of the Kentucky Department of Mines and Minerals, Explosive Division.

C. OSHA

- Kentucky Occupational Safety and Health Standards for the construction industry, which has the effect of law, states in part: (Page 52, 1926.651, Specific Excavation Requirements) "Prior to opening an excavation, effort shall be made to determine whether underground installations, (sewer, telephone, water, fuel, electric lines, etc.) will be encountered, and if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation."

D. Archaeological

- Whenever materials of an archaeological nature are discovered during the course of construction work or maintenance operations, contact shall be made immediately with the Division of Environmental Analysis, which maintains an archaeologist on staff, or with the Office of the State Archaeologist located at the University of Kentucky. Following this consultation, further action shall be decided on a case-by-case basis by the State Highway Engineer or the Transportation Planning Engineer or their designated representative.

E. Environmental

- If the activity to which this permit related disturbs one acre or more of land, you must obtain KPDES KYR10 permit. Information can be found at <http://water.ky.gov/permitting/Pages/GeneralPermits.aspx>

F. Additional Notes

- The following additional notes apply to this permit:

APPROVED
SEPTEMBER 6, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00812

II. UTILITIES

- The permittee shall be responsible for any damage to existing utilities. Any utility modifications or relocations within state right of way necessary, as determined by the Department or by the owner of the utility, shall be at the expense of the permittee and subject to the approval of the Department. Operators of underground utilities in right of way shall be members of Kentucky 811.
- All existing manholes and valve boxes shall be adjusted to be flush with finished grade.
- All pavement cuts shall be restored per Kentucky Transportation Cabinet standards and specifications.
- Any excavation within 3' of edge of pavement will require flowable fill as backfill.
- The clear zone requirement shall be met to the extent possible in accordance with the Roadside Design Guide.
- Encasement pipe shall conform to current standards for highway crossings in accordance with the Permits Manual. Pipe encasing shall not be required if the pipe crossing is 2" or less.
- Aerial crossing of utility lines shall have a minimum clearance from the high point of the roadway to the low point of the line of 24' on fully controlled access highways and 18' on non-fully controlled access highways
- Minimum depth for underground Gas and Electric lines is 60" under roadways, ramps, and ditch lines and 42" in all other areas within state right of way. The minimum depth for all other utilities is 42" in all areas.
- When steel plates are installed over an open excavation in the roadway, they must be anchored to the pavement and have asphalt applied to all exposed edges and an MUTCD approved sign noting "Road Plates Ahead." KYTC must be notified of the location, date, time, and permit number associated to BOTH the installation and removal of the plate. Failure to do so may result in permit revocation.
- Utility poles moved for replacement must be removed in their entirety and the hole left behind must be backfilled.
- No poles or anchors shall be installed in a roadside ditch.

Utility notes specific to fully-controlled access highways ONLY:
 All work necessary within the right-of-way shall be performed behind a temporary fence erected prior to the start of work. The temporary woven wire fence shall be removed immediately upon completion of work on the right-of-way, and the control of access immediately restored to original condition, in accordance with applicable KYTC SSRBC. All vents, valves, manholes, etc., shall be located outside of the right-of-way. Encasement pipe shall extend from right-of-way line to right-of-way line and shall be one continuous run of pipe. The encasement pipe shall be welded at all joints. The boring pit and tail ditch shall extend past the existing toe of slope or bottom of ditch line and shall be a minimum of 42 inches deep. Work in interstate right-of-way requires approval from FHWA (Federal Highway Administration).

Additional notes:

APPROVED
 SEPTEMBER 6, 2023
 KENTUCKY TRANSPORTATION CABINET
 06-2023-00812

III. DRAINAGE

- Negative impacts to existing drainage will be the applicant's responsibility to repair in accordance with KYTC SSRBC.
- All pipe shall be laid in a straight alignment, to proper grades, and with all materials and methods of installation including bedding and joint seating. Pipe shall not be covered until inspected by the Department and express permission obtained to make backfill. It is the applicant's responsibility to request inspection.
- All gutter lines at the base of new curbs shall be on continuous grades, and pockets of water along with curbs or in entrance areas or other paved areas within the right-of-way shall not be acceptable.
- All drainage structures and appurtenances (manholes, catch basins, curbing, inlet basins, etc.) shall conform to the Department specifications and shall be constructed in accordance with the KYTC's Standard Drawings.
- Additional notes:

IV. PAVING

- No bituminous pavement shall be installed within the right of way between November 15 and April 1, nor when the temperature is below 40 degrees Fahrenheit, without the express consent of the Department. No bituminous pavement shall be installed when the underlying course is wet.
- Paving within the right of way shall be as follows:
 - Base (Type): **Match Existing**, (Thickness) **Match Existing**
 - Surface Base (Type) **Match Existing**, (Thickness) **Match Existing**
 - Finished Surface (Type) **Match Existing**, (Thickness) **Match Existing**
- All materials and methods of construction, including base and subgrade preparation, shall be in accordance with KYTC's Standard Specifications. At least 24 hours notice to the Department is required prior to beginning paving operations.
 Phone: **859-341-2700** Name: _____
- Utility companies performing road cuts must restore the pavement to pre-existing condition. Pictures/videos are recommended to ensure proper placement of signs and lane markers that are temporarily removed for paving operations. In some cases, a pre-work inventory may be requested from the Department.
- Existing pavement and shoulder material shall be removed to accommodate the above paving specifications.
- The finished surface of all new pavement within the right of way shall be true to the required slope and grade, uniform in density and texture, free of irregularities, and equivalent in riding qualities to the adjacent highway pavement or as determined by KYTC.
- To ensure proper surface drainage, the new pavement shall be flush with the edge of existing highway pavement and shall slope away from the existing edge of the pavement as specified in drawings.
- Existing edge of pavement shall be saw-cut to provide a straight and uniform joint for new pavement, and an edge key will be installed in the overlap. An approved joint sealer, in accordance with Kentucky Department of Highways Standard Specifications (latest edition), shall be applied between new and existing pavements.
- Additional notes:

APPROVED
SEPTEMBER 6, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00812

V. ENTRANCES

- Encroachment permits issued by KYTC in no way supersede local planning/zoning requirements or subdivision regulations. KYTC has no authority with zoning changes.
- Commercial entrances must be paved to the right-of-way line. Any deviations must be approved by KYTC before installation.
- KYTC can dictate drainage improvement installation during construction or after entrance is at final grade. The permit release does not release the permit applicant from drainage maintenance.
- Signs (ground-mounted and span-mounted), stop bars, crosswalk, and proper lane markings must be in-place before entrance is open for traffic. Lane width modifications must be approved by the Department.
- Guardrail installation must be pre-approved by the Department and installed by a KYTC pre-qualified contractor. Any guardrail that is removed during construction must be returned to the local KYTC maintenance facility.

Additional notes:

VI. TRAFFIC

- Any contractor performing work within the vicinity of KYTC roadway lighting or traffic signals, must request locates from the KYTC District 6 Traffic section at least one week before of starting work in the right-of-way.
- Applicant must maintain all KYTC Roadway signage that is impacted by the permitted work. In the event that any signs have to be moved, it is the applicant's responsibility to mark the sign's location before removal and to install the original or new sign per KYTC standards for sign installation.
- Any thermoplastic or striping damaged during the encroachment must be restored in a timely manner per KYTC standards. Stopbars, arrows, and crosswalks must be thermoplastic material, paint is not acceptable. This work must be performed by a KYTC pre-qualified contractor.
- Excavating near a signal, lighting pole, or anchoring facility must be done so that it does not impact the structural integrity of the pole. Any work that requires a temporary support or anchoring must receive prior approval.
- If the scope of the permit involves a signal build or rebuild, it is the applicant's responsibility to apply for power service (and pay monthly electrical bill) as well as request electrical inspection from the KYTC District 6 Traffic section. If the signal modifications require timing or phasing changes this must be requested at least two weeks in advance of the signal's turn-on date. KYTC will not take ownership of permitted signals until the electrical inspection is formally accepted and approved.
- Work which impacts traffic loops requires 48-hour notice to the KYTC District 6 Traffic section at 859-341-2700. Accidental damage of a traffic loop must be reported immediately to KYTC District 6's emergency line at 859-620-2738. Any disturbed traffic loops must be replaced in a timely manner. Traffic loops out of operation for more than five working days will subject the applicant to the cancellation of the permit. Loop repair must be performed by a KYTC pre-qualified contractor.

Additional Notes:

APPROVED
 SEPTEMBER 2023
 KENTUCKY TRANSPORTATION CABINET
 T06-2023-00812

VII. SIDEWALK SPECIFICATIONS

All sidewalk modifications, retrofitting, or installations must meet current ADA guidelines

A. New Sidewalks

New sidewalk specifications, dimensions, and designs shall be in accordance with KYTC's latest edition of the Standard Specifications, or with the plans provided on the permit if approved by a KYTC D6 Construction or Permits Engineer.

All materials and methods of construction, including curing, shall be in accordance with KYTC's latest edition of the Standard Specifications.

B. Existing Sidewalks

Use of the sidewalk shall not be blocked or obstructed and a usable walkway shall be maintained across the construction area at all times per MUTCD . Sidewalk closures must be approved by the Department before implementation.

The location of ADA ramps (truncated domes/tactile warnings/etc.) will need to be field verified by KYTC before installation.

Any section of sidewalk that becomes damaged shall be entirely replaced to match existing sections.

Additional notes:

VIII. RIGHT OF WAY RESTORATION

All disturbed portions of the right of way shall be restored to grass as per Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition). A satisfactory turf, as determined by the Department, shall be established by the permittee prior to release of indemnity. Sodding or seeding shall be as follows:

Slopes 3:1 or Less: 90% Kentucky 31 Tall Fescue and 10% White Dutch Clover at 100 lbs/acre

Slopes Greater than 3:1: 90% Kentucky 31 Tall Fescue and 10% Partridge Pea at 100 lbs/acre

Urban or Residential Areas: 95% Turf Type Fall Fescue Blend and 5% White Dutch Clover at 275 lbs/acre

Two tons of clean straw mulch per acre of seeding.

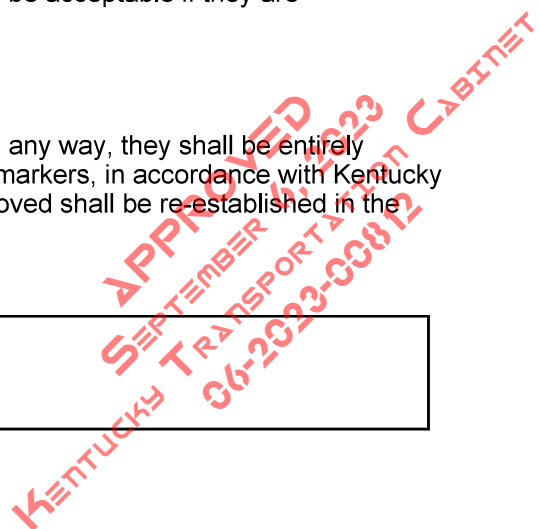
Prior to seeding, the ground shall be prepared in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

Substitutes for sod such as artificial turf, rocked mulch, or paved areas may be acceptable if they are aesthetically pleasing and receive prior approval from KYTC.

All ditch-flow lines and all ditch-side slopes shall be sodded.

Existing concrete right of way markers shall not be disturbed. If damaged in any way, they shall be entirely replaced by the permittee with new concrete markers to match the original markers, in accordance with Kentucky Department of Highways Standard Drawings. Markers that are entirely removed shall be re-established in the proper locations by the permittee and to the satisfaction of the Department.

Additional notes:



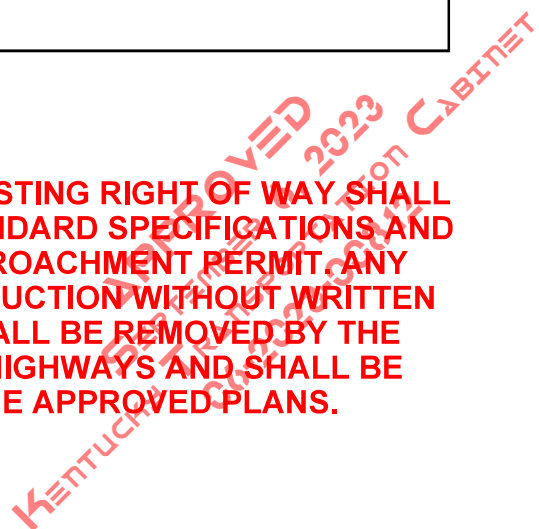
IX. RIGHT OF WAY FENCE RESTORATION

- The replacement fence shall be a height of at least 48 inches and shall be of sufficient density to protect against encroachment.
- The replacement fence shall be a minimum of 1 foot and a maximum of 2 feet outside the right-of-way line
- The fence materials and design shall meet accepted industry standards and be treated as paintable. Durable finish materials such as vinyl are acceptable.
- The permittee shall be required to construct and maintain the replacement fencing to an acceptable level of functionality and state of repair. All work on the fencing shall be performed by access from the private property. Access from the roadway is not allowed.
- The existing fence shall be removed by permittee and stored at the Department's maintenance storage yard for future reuse by the Department, or the Department shall be reimbursed the cost of fencing removed.
- Right of way monuments shall be installed regardless of if replacement fence is installed or not.
- The control of access shall not be diminished as a result of replacement of the fence.
- Additional notes:

X. MISCELLANEOUS NOTES

NOTICE TO PERMITTEE

THE PERMITTEE AGREES THAT ALL WORK WITHIN THE EXISTING RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH THE CURRENT KYTC STANDARD SPECIFICATIONS AND THE PLANS AS APPROVED AND PERMITTED BY AN ENCROACHMENT PERMIT. ANY CHANGES OR VARIANCES MADE AT THE TIME OF CONSTRUCTION WITHOUT WRITTEN APPROVAL FROM THE DEPARTMENT OF HIGHWAYS SHALL BE REMOVED BY THE PERMITTEE AT NO EXPENSE TO THE DEPARTMENT OF HIGHWAYS AND SHALL BE REDONE BY THE PERMITTEE TO CONFORM WITH THE APPROVED PLANS.



From: [Kool, Kenneth H \(KYTC-D06\)](#)
To: [Steve Broering](#)
Subject: *EXTERNAL* RE: Oneonta Rd - 06-2023-00812
Date: Monday, March 25, 2024 7:28:59 AM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Steve,

I have no issues with the proposed change. I will update our files.

Thanks,

Kenny Kool
KYTC District 6 Permits
(859) 341-2700

From: Steve Broering <sbroering@nkywater.org>
Sent: Friday, March 22, 2024 3:24 PM
To: Kool, Kenneth H (KYTC-D06) <Kenny.Kool@ky.gov>
Subject: FW: Oneonta Rd - 06-2023-00812

****CAUTION** PDF attachments may contain links to malicious sites. Please contact the COT Service Desk ServiceCorrespondence@ky.gov for any assistance.**

Hi Kenny,
Have you had a chance to review this requested change to the plan?
Thanks,
Steve Broering
NKWD

From: Steve Broering
Sent: Friday, March 15, 2024 10:33 AM
To: Kool, Kenneth H (KYTC-D06) <kenny.kool@ky.gov>
Subject: Oneonta Rd - 06-2023-00812

Kenny,
Upon review of the proposed water main plan on Oneonta Road in Campbell County we are requesting a change to the pipe alignment on sheet C-526. Under permit 06-2023-00812, the old plan had a bore and jack for the intersection of Oneonta Road and Truesdale Road (see old sheet.pdf). Upon review, this bore and jack as shown will not work and the bore pit would have to be pushed further out into Oneonta Road. Our proposal is to route the water main up and

around the existing culvert (see new sheet.pdf). I have also attached two photos of this intersection.

Please let me know if you have any additional questions about this request.

Regards,

Steve Broering

NKWD

859-426-2728

NOTICE OF COMPLETION OF ENCROACHMENT PERMIT WORK

PERMITTEE

Name: Northern Kentucky Water District
Contact Person:
Address: 2835 Crescent Springs Road
City: Erlanger
State: Kentucky
Zip: 41018
Telephone:

PROJECT IDENTIFICATION

Permit Number: 06-2023-00633

I wish to notify the Department of Highways that the above mentioned permit work and any necessary right-of-way restoration have been completed and are ready for final inspection.

Permittee

Please return this form to the address below when work is completed and ready for final inspection.

Please Return to: Permit Engineer
Department of Highways, District 6 Office
421 Buttermilk Pike
Covington, Kentucky 41017
(859) 341-2700
www.transportation.ky.gov/

LOCATION(S)			
Description	County - Route	Latitude	Longitude
Install 8" ductile iron water main in ditch line north of KY 1936.	Campbell - KY 1936	38.908619	-84.436909

APPROVED
JULY 25, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00633



Andy Beshear
Governor

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Department of Highways, District 6 Office
421 Buttermilk Pike
Covington, Kentucky 41017
(859) 341-2700
www.transportation.ky.gov/

Jim Gray
Secretary

July 25, 2023

Northern Kentucky Water District
2835 Crescent Springs Road
Erlanger, Kentucky 41018

Subject: Permit #: 06-2023-00633
Permit Type: Utilities - Water
Approval

Dear Applicant:

Attached is your permit approval and documentation for the subject permit.

Be advised that all work must be done in conformity with permit and application conditions. If you have any questions, please contact the Permits Section at this office.

Sincerely,

A handwritten signature in black ink that reads "Linzy Brefeld".

Linzy Brefeld
D6 Permits Supervisor

Attachments



An Equal Opportunity Employer M/F/D

APPROVED
JULY 25, 2023
KENTUCKY TRANSPORTATION CABINET
06-2023-00633



ENCROACHMENT PERMIT

KYTC KEPT #: 06-2023-00633

Permittee: Northern Kentucky Water District

Permit Type / Subtype: Utilities / Water

Work Completion Date: 7/12/2024

INDEMNITIES		
Type	Amount Required	Tracking Number
Performance Bond	\$0.00	
Cash / Check	\$0.00	
Self-Insured	\$0.00	
Payment Bond	\$0.00	
Liability Insurance	\$0.00	

This permit has been: **APPROVED** **DENIED**

Linzy Brefeld	D6 Permits Supervisor	7/25/2023
SIGNATURE	TITLE	DATE

The TC 99-1(B), including the application TC-99 1(A) and all related and accompanying documents and drawings make up the permit. It is not a permit unless both the TC 99-1(A) and TC 99-1(B) are both present.

LOCATION(S)			
Description	County - Route	Latitude	Longitude
Install 8" ductile iron water main in ditch line north of KY 1936.	Campbell - KY 1936	38.908619	-84.436909

APPROVED
 JULY 25, 2023
 KENTUCKY TRANSPORTATION CABINET
 06-2023-00633



To Submit a Locate Request
 24 Hours a Day, Seven Days a Week:
 Call 811 or 800-752-6007



APPLICATION FOR ENCROACHMENT PERMIT

KYTC KEPT #: T06-2023-00633

SECTION 1: APPLICANT CONTACT INFORMATION

APPLICANT Northern Kentucky Water District	ADDRESS 2835 Crescent Springs Pike		
EMAIL	CITY Erlanger	STATE KY	ZIP 41018
CONTACT NAME 1 Kyle Ryan, PE	EMAIL KRyan@nkywater.org	PHONE # 859-426-2713	CELL #
		CONTACT NAME 2 (if applicable) Matt Bogen, PE	EMAIL mbogen@cardinalengineering.net
		PHONE # 859-392-3673	CELL #

SECTION 2: PROPOSED WORK LOCATION

ADDRESS 10365 Pond Creek Rd to 208 Visalia Rd.	CITY Unincorporated	STATE Kentucky	ZIP 41001
COUNTY Campbell	ROUTE # KY 1936	MILE POINT 7.14-6.82	LONGITUDE (X) -84.440654
			LATITUDE (Y) 38.912396

ADDITIONAL LOCATION INFORMATION:

FOR KYTC USE ONLY

PERMIT TYPE: Air Right Entrance Utilities Vegetation Removal Other: _____

ACCESS: Full Partial by Permit **LOCATION:** Left Right Crossing

SECTION 3: GENERAL DESCRIPTION OF WORK

Install 8" ductile iron water main in ditchline north of KY 1936. No open cut of roadway will be required.

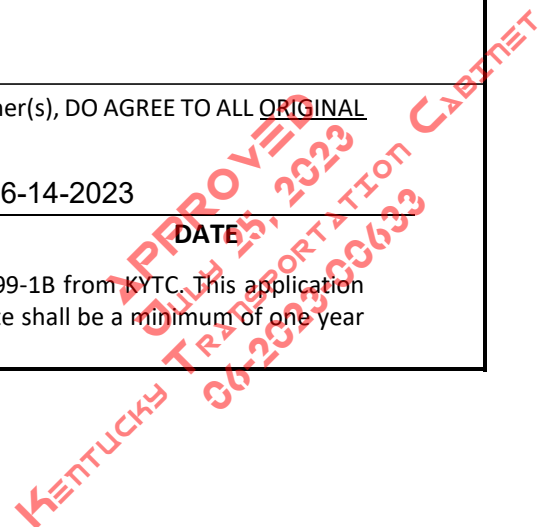
THE UNDERSIGNED APPLICANT(s), being duly authorized representative(s) or owner(s), DO AGREE TO ALL ORIGINAL UNEDITED TERMS AND CONDITIONS ON THE TC 99-1A, pages 1-4.

Steve Broering
 SIGNATURE

6-14-2023

DATE

This is not a permit unless and until the applicant(s) receives an approved TC 99-1B from KYTC. This application shall become void if not approved by the cancellation date. The cancellation date shall be a minimum of one year from the date the applicant submits their application.





APPLICATION FOR ENCROACHMENT PERMIT

TERMS AND CONDITIONS

1. The permit, including this application and all related and accompanying documents and drawings making up the permit, remains in effect and is binding upon the Applicant/Permittee, its successors and assigns, as long as the encroachment(s) exists and also until the permittee is finally relieved by the Department of Highways from all its obligations.
2. Applicant shall meet all requirements of the Clean Water Act if the project will disturb one acre or more, the applicant shall obtain a KPDES KYR10 Permit from the Kentucky Division of Water. All disturbed areas shall meet the requirements of the Department of Highway's Standard Specifications, Sections 212 and 213, as amended.
3. **INDEMNITY:**
 - A. **PERFORMANCE BOND:** The permittee shall provide to the Department a performance bond according to the Permits Manual, Section PE-203 as a guarantee of conformance with the Department's Encroachment Permit requirements.
 - B. **PAYMENT BOND:** At the discretion of the department, a payment bond shall be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
 - C. **LIABILITY INSURANCE:** Liability insurance shall be required of the permittee (in an amount approved by the department) to cover all liabilities associated with the encroachment.
 - D. It shall be the responsibility of the permittee, its successors and assigns, to maintain all indemnities in full force and effect until the permittee is authorized to release the indemnity by the Department.
4. A copy of this application and all related documents making up the approved permit shall be given to the applicant and shall be made readily available for review at the work site at all times.
5. Perpetual maintenance of the encroachment is the responsibility of the permittee, its successors and assigns, with the approval of the Department as required, unless otherwise stated.
6. Permittee, its successors and assigns, shall comply with and agree to be bound by the requirements and terms of (a) this application and all related documents making up the approved permit, (b) by the Department's Permits Manual, and (c) by the Manual on Uniform Traffic Control Devices, both manuals as revised to and in effect on the date of issuance of the permit, all of which documents are made a part thereof by this reference. Compliance by the permittee, its successors and assigns, with subsequent revisions to applicable provisions of either manual or other policy of the Department may be made a condition of allowing the encroachment to persist under the permit.
7. Permittee agrees that this and any encroachment may be ordered removed by the Department at any time, and for any reason, upon thirty days written notice to the last known address of the applicant or to the address at the location of the encroachment. The permittee agrees that the cost of removing and of restoring the associated right-of-way is the responsibility of the permittee, its successors and assigns.
8. Permittee, its successors and assigns, agree that if the Department determines that motor vehicular safety deficiencies develop as a result of the installation or use of the encroachment, the permittee, its successors and assigns, shall provide and bear the expenses to adjust, relocate, or reconstruct the facilities, add signs, auxiliary lanes, or other corrective measures reasonably deemed necessary by the Department within a reasonable time after receipt of a written notice of such deficiency. The period within which such adjustments, relocations, additions, modifications, or other corrective measures must be completed will be specified in the notice.
9. Where traffic signals are required as a condition of granting the requested permit or are thereafter required to correct motor vehicular safety deficiencies, as determined by the Department, the costs for signal equipment and installation(s) shall be borne by the permittee, its successors and assigns and the Department in its reasonable discretion and only in accordance with the Department's current policy set forth in the Traffic Operations Manual and Permits Manual. Any modifications to the permittee's entrance necessary to accommodate signalization (including necessary easement(s) on private property) shall be the responsibility of the permittee, its successors and assigns, at no expense to the Department.

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06-2024-00503



APPLICATION FOR ENCROACHMENT PERMIT

10. The requested encroachment shall not infringe on the frontage rights of an abutting owner without their written consent as hereinafter described. Each abutting owner shall express their consent, which shall be binding on their successors and assigns, by the submission of a notarized statement as follows, "I (we), _____, hereby consent to the granting of the permit requested by the applicant along Route _____, which permit does affect frontage rights along my (our) adjacent real property." By signature(s) _____, subscribed and sworn by _____, on this date _____.
11. The permit, if approved, is subject to the agreement that it shall not interfere with any similar rights or permit(s) previously granted to any other party, except as otherwise provided by law.
12. Permittee shall include documentation which describes the facilities to be constructed. Permittee, its successors and assigns, agree as a condition of the granting of the permit to construct and maintain any and all permitted facilities or other encroachments in strict accordance with the submitted and approved permit documentation and the policies and procedures of the Department. Permittee, its successors and assigns, shall not use facilities authorized herein in any manner contrary to that prescribed by the approved permit. Only normal usage as contemplated by the parties and by this application and routine maintenance are authorized by the permit.
13. Permittee, its successors and assigns, at all times from the date permitted work is commenced until such time as all permitted facilities or other encroachments are removed from the right-of-way and the right-of-way restored, **shall defend, protect, indemnify and save harmless** the Department from any and all liability claims and demands arising out of the work, encroachment, maintenance, or other undertaking by the permittee, its successors and assigns, related or undertaken pursuant to the granted permit, due to any claimed act or omission by the permittee, its servants, agents, employees, or contractors. This provision shall not inure to the benefit of any third party nor operate to enlarge any liability of the Department beyond that existing at common law or otherwise if this right to indemnity did not exist.
14. Upon a violation of any provision of the permit, or otherwise in its reasonable discretion, the Department may require additional action by the permittee, its successors and assigns, up to and including the removal of the encroachment and restoration of the right-of-way. In the event additional actions required by the Department under the permit are not undertaken as ordered and within a reasonable time, the Department may in its discretion cause those or other additional corrective actions to be undertaken and the Department shall recover the reasonable costs of those corrective actions from the permittee, its successors and assigns.
15. Permittee, its successors and assigns, shall use the encroachment premises in compliance with all requirements of federal law and regulation, including those imposed pursuant to Title VI of the Civil Right Act of 1964 (42 U.S.C. § 2000d et seq.) and the related regulations of the U.S. Department of Transportation in Title 49 C.F.R. Part 21, all as amended.
16. Permittee, its successors and assigns, agree that if the Department determines it is necessary for the facilities or other encroachment authorized by the permit to be removed, relocated or reconstructed in connection with the reconstruction, relocation or improvement of a highway, the Department may revoke permission for the encroachment to remain under the permit and may order its removal, relocation or reconstruction by the permittee, its successors and assigns, at the expense of the permittee, except where the Department is required by law to pay any or all of those costs.

APPROVED
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APPLICATION FOR ENCROACHMENT PERMIT

- 17. Permittee agrees that the authorized permit is personal to the permittee and shall remain in effect until such time as (a) the permittee's rights to the adjoining real property to have benefitted from the requested encroachment have been relinquished, (b) until all permit obligations have been assumed by appropriate successors and assigns, and (c) unless and until a written release from permit obligations has been granted by the Department. The permit and its requirements shall also bind the real property to have benefitted from the requested encroachment to the extent permitted by law. The permit and the related encroachment become the responsibility of the successors and assigns of the permittee and the successors and assigns of each property owner benefitting from the encroachment, or the encroachment may not otherwise permissibly continue to be maintained on the right-of-way. (Does not apply to utility encroachments serving the general public.)
- 18. If work authorized by the permit is within a highway construction project in the construction phase, it shall be the responsibility of the permittee to make personal contact with the Department's Engineer on the project in order to coordinate all permitted work with the Department's prime contractor on the project.
- 19. This permit is not intended to, nor shall it, affect, alter or alleviate any requirement imposed upon the permittee, its successors and assigns, by any other agency.
- 20. Permittee, its successors and assigns, agree to contain and maintain all dirt, mud, and other debris emanating from the encroachment away from the surrounding right-of-way and the travel way of the highway hereafter and at all times that its obligations under the permit remain in effect.
- 21. Before You Dig: The contractor is instructed to call 1-800-752-6007 to reach KY 811, the One-Call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that the owners of underground facilities are not required to be members of the KY 811 One-Call Before U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Clerk to determine what utility companies have facilities in the area.
- 22. The undersigned Utility acknowledges ownership and control of the facilities proposed to be installed, modified, or extended by the Applicant/Permittee and agrees to be bound by the requirements and terms of this application and all related documents making up the approved permit, by the Department's Permits Guidance Manual, and by all applicable regulations and statutes in effect on the date of issuance of the permit. This information and application is certified correct to the best knowledge and belief of the undersigned Utility.

Northern Kentucky Water District

UTILITY

Steve Broering

NAME (Utility Representative)

Steve Broering

SIGNATURE (Utility Representative)

Engineering Technician

TITLE (Utility Representative)

6-14-2023

DATE



Know what's below. Call before you dig.

To Submit a Locate Request
24 Hours a Day, Seven Days a Week:
Call 811 or 800-752-6007

APPROVED
JUN 15, 2023
KENTUCKY TRANSPORTATION CABINET
06-20-2023 09:56:33



**KYTC Division of Maintenance
Permits Branch
District 6**



ENCROACHMENT PERMIT GENERAL NOTES & SPECIFICATIONS

YOU MUST NOTIFY KYTC BEFORE BEGINNING ANY WORK IN THE RIGHT-OF-WAY. *Failure to alert KYTC of working within the right of way may result in permit revocation.*

Two ways to notify KYTC of your construction start date:

By Email: KYTCD6PERMITS@KY.GOV

**must include permit number and county in subject line*

By Phone: 859-341-2700

**must know permit number and county when calling*

YOU MUST ALSO NOTIFY KYTC UPON COMPLETION OF WORK WITHIN RIGHT-OF-WAY. *Failure to alert KYTC of completion of work may result in withholding release of any associated bonds.*



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I. SAFETY**A. General Provisions**

- All signs and control of traffic shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways, latest edition, Part VI, and safety requirements shall comply with the Permits Manual. Federal law requires that traffic control shall be implemented in accordance with MUTCD standards and KYTC's Standard Specifications for Road and Bridge Construction (KYTC SSRBC) under the supervision of a certified Work Zone Traffic Control Supervisor.
- All work necessary in shoulder or ditch line areas of a state highway shall be scheduled to be promptly completed so that hazards adjacent to the traveled way are kept to an absolute minimum.
- No more than one (1) traveled-lane shall be blocked or obstructed during normal working hours. All signs and flaggers during lane closure shall conform to the MUTCD. The traveled-way and shoulders shall be kept clear of mud and other construction debris at all times during construction of the permitted facility. No non-construction equipment or vehicles or office trailers shall be allowed on the right of way during working hours. The right of way shall be left free and clear of equipment, material, and vehicles during non-working hours.
- When necessary to block one (1) traveled-lane of a state highway, the normal working hours shall be as directed by the Department. No lanes shall be blocked or obstructed during adverse weather conditions (rain, snow, fog, etc.) without specific permission from the Department.
- Working hours shall be between 9:00 AM and 3:00 PM. Further date and time restrictions are as follows:

B. Explosives

- No explosive devices or explosive material shall be used within state right of way without proper license and approval of the Kentucky Department of Mines and Minerals, Explosive Division.

C. OSHA

- Kentucky Occupational Safety and Health Standards for the construction industry, which has the effect of law, states in part: (Page 52, 1926.651, Specific Excavation Requirements) "Prior to opening an excavation, effort shall be made to determine whether underground installations, (sewer, telephone, water, fuel, electric lines, etc.) will be encountered, and if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation."

D. Archaeological

- Whenever materials of an archaeological nature are discovered during the course of construction work or maintenance operations, contact shall be made immediately with the Division of Environmental Analysis, which maintains an archaeologist on staff, or with the Office of the State Archaeologist located at the University of Kentucky. Following this consultation, further action shall be decided on a case-by-case basis by the State Highway Engineer or the Transportation Planning Engineer or their designated representative.

E. Environmental

- If the activity to which this permit related disturbs one acre or more of land, you must obtain KPDES KYR10 permit. Information can be found at <http://water.ky.gov/permitting/Pages/GeneralPermits.aspx>

F. Additional Notes

- The following additional notes apply to this permit:

Bore pits must be made safe for an errant vehicle during non working hours.

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II. UTILITIES

- The permittee shall be responsible for any damage to existing utilities. Any utility modifications or relocations within state right of way necessary, as determined by the Department or by the owner of the utility, shall be at the expense of the permittee and subject to the approval of the Department. Operators of underground utilities in right of way shall be members of Kentucky 811.
- All existing manholes and valve boxes shall be adjusted to be flush with finished grade.
- All pavement cuts shall be restored per Kentucky Transportation Cabinet standards and specifications.
- Any excavation within 3' of edge of pavement will require flowable fill as backfill.
- The clear zone requirement shall be met to the extent possible in accordance with the Roadside Design Guide.
- Encasement pipe shall conform to current standards for highway crossings in accordance with the Permits Manual. Pipe encasing shall not be required if the pipe crossing is 2" or less.
- Aerial crossing of utility lines shall have a minimum clearance from the high point of the roadway to the low point of the line of 24' on fully controlled access highways and 18' on non-fully controlled access highways
- Minimum depth for underground Gas and Electric lines is 60" under roadways, ramps, and ditch lines and 42" in all other areas within state right of way. The minimum depth for all other utilities is 42" in all areas.
- When steel plates are installed over an open excavation in the roadway, they must be anchored to the pavement and have asphalt applied to all exposed edges and an MUTCD approved sign noting "Road Plates Ahead." KYTC must be notified of the location, date, time, and permit number associated to BOTH the installation and removal of the plate. Failure to do so may result in permit revocation.
- Utility poles moved for replacement must be removed in their entirety and the hole left behind must be backfilled.
- No poles or anchors shall be installed in a roadside ditch.

Utility notes specific to fully-controlled access highways ONLY:
 All work necessary within the right-of-way shall be performed behind a temporary fence erected prior to the start of work. The temporary woven wire fence shall be removed immediately upon completion of work on the right-of-way, and the control of access immediately restored to original condition, in accordance with applicable KYTC SSRBC. All vents, valves, manholes, etc., shall be located outside of the right-of-way. Encasement pipe shall extend from right-of-way line to right-of-way line and shall be one continuous run of pipe. The encasement pipe shall be welded at all joints. The boring pit and tail ditch shall extend past the existing toe of slope or bottom of ditch line and shall be a minimum of 42 inches deep. Work in interstate right-of-way requires approval from FHWA (Federal Highway Administration).

Additional notes:



III. DRAINAGE

- Negative impacts to existing drainage will be the applicant's responsibility to repair in accordance with KYTC SSRBC.
- All pipe shall be laid in a straight alignment, to proper grades, and with all materials and methods of installation including bedding and joint seating. Pipe shall not be covered until inspected by the Department and express permission obtained to make backfill. It is the applicant's responsibility to request inspection.
- All gutter lines at the base of new curbs shall be on continuous grades, and pockets of water along with curbs or in entrance areas or other paved areas within the right-of-way shall not be acceptable.
- All drainage structures and appurtenances (manholes, catch basins, curbing, inlet basins, etc.) shall conform to the Department specifications and shall be constructed in accordance with the KYTC's Standard Drawings.
- Additional notes:

IV. PAVING

- No bituminous pavement shall be installed within the right of way between November 15 and April 1, nor when the temperature is below 40 degrees Fahrenheit, without the express consent of the Department. No bituminous pavement shall be installed when the underlying course is wet.
- Paving within the right of way shall be as follows:
 - Base (Type): **Match Existing**, (Thickness) **Match Existing**
 - Surface Base (Type) **Match Existing**, (Thickness) **Match Existing**
 - Finished Surface (Type) **Match Existing**, (Thickness) **Match Existing**
- All materials and methods of construction, including base and subgrade preparation, shall be in accordance with KYTC's Standard Specifications. At least 24 hours notice to the Department is required prior to beginning paving operations.
 Phone: **859-341-2700** Name: **Kenny Kool**
- Utility companies performing road cuts must restore the pavement to pre-existing condition. Pictures/videos are recommended to ensure proper placement of signs and lane markers that are temporarily removed for paving operations. In some cases, a pre-work inventory may be requested from the Department.
- Existing pavement and shoulder material shall be removed to accommodate the above paving specifications.
- The finished surface of all new pavement within the right of way shall be true to the required slope and grade, uniform in density and texture, free of irregularities, and equivalent in riding qualities to the adjacent highway pavement or as determined by KYTC.
- To ensure proper surface drainage, the new pavement shall be flush with the edge of existing highway pavement and shall slope away from the existing edge of the pavement as specified in drawings.
- Existing edge of pavement shall be saw-cut to provide a straight and uniform joint for new pavement, and an edge key will be installed in the overlap. An approved joint sealer, in accordance with Kentucky Department of Highways Standard Specifications (latest edition), shall be applied between new and existing pavements.
- Additional notes:

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V. ENTRANCES

- Encroachment permits issued by KYTC in no way supersede local planning/zoning requirements or subdivision regulations. KYTC has no authority with zoning changes.
- Commercial entrances must be paved to the right-of-way line. Any deviations must be approved by KYTC before installation.
- KYTC can dictate drainage improvement installation during construction or after entrance is at final grade. The permit release does not release the permit applicant from drainage maintenance.
- Signs (ground-mounted and span-mounted), stop bars, crosswalk, and proper lane markings must be in-place before entrance is open for traffic. Lane width modifications must be approved by the Department.
- Guardrail installation must be pre-approved by the Department and installed by a KYTC pre-qualified contractor. Any guardrail that is removed during construction must be returned to the local KYTC maintenance facility.

Additional notes:

VI. TRAFFIC

- Any contractor performing work within the vicinity of KYTC roadway lighting or traffic signals, must request locates from the KYTC District 6 Traffic section at least one week before of starting work in the right-of-way.
- Applicant must maintain all KYTC Roadway signage that is impacted by the permitted work. In the event that any signs have to be moved, it is the applicant's responsibility to mark the sign's location before removal and to install the original or new sign per KYTC standards for sign installation.
- Any thermoplastic or striping damaged during the encroachment must be restored in a timely manner per KYTC standards. Stopbars, arrows, and crosswalks must be thermoplastic material, paint is not acceptable. This work must be performed by a KYTC pre-qualified contractor.
- Excavating near a signal, lighting pole, or anchoring facility must be done so that it does not impact the structural integrity of the pole. Any work that requires a temporary support or anchoring must receive prior approval.
- If the scope of the permit involves a signal build or rebuild, it is the applicant's responsibility to apply for power service (and pay monthly electrical bill) as well as request electrical inspection from the KYTC District 6 Traffic section. If the signal modifications require timing or phasing changes this must be requested at least two weeks in advance of the signal's turn-on date. KYTC will not take ownership of permitted signals until the electrical inspection is formally accepted and approved.
- Work which impacts traffic loops requires 48-hour notice to the KYTC District 6 Traffic section at 859-341-2700. Accidental damage of a traffic loop must be reported immediately to KYTC District 6's emergency line at 859-620-2738. Any disturbed traffic loops must be replaced in a timely manner. Traffic loops out of operation for more than five working days will subject the applicant to the cancellation of the permit. Loop repair must be performed by a KYTC pre-qualified contractor.

Additional Notes:

APPROVED
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VII. SIDEWALK SPECIFICATIONS

All sidewalk modifications, retrofitting, or installations must meet current ADA guidelines

A. New Sidewalks

New sidewalk specifications, dimensions, and designs shall be in accordance with KYTC's latest edition of the Standard Specifications, or with the plans provided on the permit if approved by a KYTC D6 Construction or Permits Engineer.

All materials and methods of construction, including curing, shall be in accordance with KYTC's latest edition of the Standard Specifications.

B. Existing Sidewalks

Use of the sidewalk shall not be blocked or obstructed and a usable walkway shall be maintained across the construction area at all times per MUTCD . Sidewalk closures must be approved by the Department before implementation.

The location of ADA ramps (truncated domes/tactile warnings/etc.) will need to be field verified by KYTC before installation.

Any section of sidewalk that becomes damaged shall be entirely replaced to match existing sections.

Additional notes:

VIII. RIGHT OF WAY RESTORATION

All disturbed portions of the right of way shall be restored to grass as per Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition). A satisfactory turf, as determined by the Department, shall be established by the permittee prior to release of indemnity. Sodding or seeding shall be as follows:

Slopes 3:1 or Less: 90% Kentucky 31 Tall Fescue and 10% White Dutch Clover at 100 lbs/acre

Slopes Greater than 3:1: 90% Kentucky 31 Tall Fescue and 10% Partridge Pea at 100 lbs/acre

Urban or Residential Areas: 95% Turf Type Fall Fescue Blend and 5% White Dutch Clover at 275 lbs/acre

Two tons of clean straw mulch per acre of seeding.

Prior to seeding, the ground shall be prepared in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

Substitutes for sod such as artificial turf, rocked mulch, or paved areas may be acceptable if they are aesthetically pleasing and receive prior approval from KYTC.

All ditch-flow lines and all ditch-side slopes shall be sodded.

Existing concrete right of way markers shall not be disturbed. If damaged in any way, they shall be entirely replaced by the permittee with new concrete markers to match the original markers, in accordance with Kentucky Department of Highways Standard Drawings. Markers that are entirely removed shall be re-established in the proper locations by the permittee and to the satisfaction of the Department.

Additional notes:

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IX. RIGHT OF WAY FENCE RESTORATION

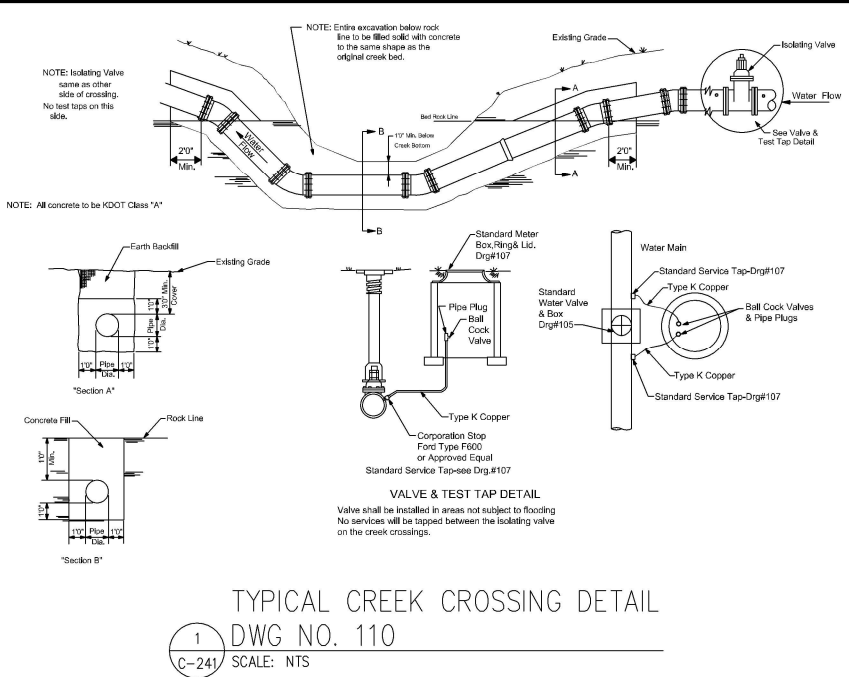
- The replacement fence shall be a height of at least 48 inches and shall be of sufficient density to protect against encroachment.
- The replacement fence shall be a minimum of 1 foot and a maximum of 2 feet outside the right-of-way line
- The fence materials and design shall meet accepted industry standards and be treated as paintable. Durable finish materials such as vinyl are acceptable.
- The permittee shall be required to construct and maintain the replacement fencing to an acceptable level of functionality and state of repair. All work on the fencing shall be performed by access from the private property. Access from the roadway is not allowed.
- The existing fence shall be removed by permittee and stored at the Department's maintenance storage yard for future reuse by the Department, or the Department shall be reimbursed the cost of fencing removed.
- Right of way monuments shall be installed regardless of if replacement fence is installed or not.
- The control of access shall not be diminished as a result of replacement of the fence.
- Additional notes:

X. MISCELLANEOUS NOTES

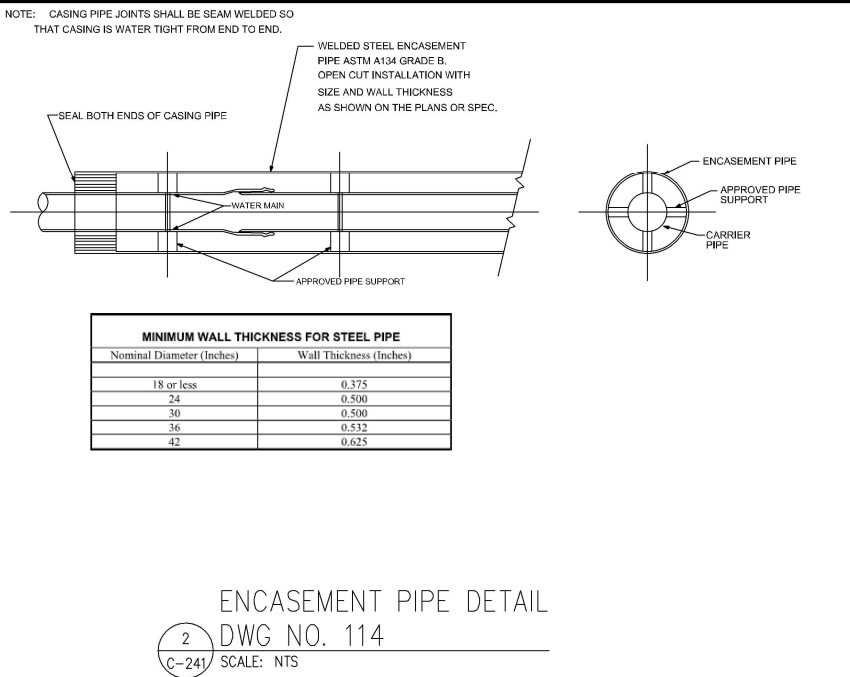
NOTICE TO PERMITTEE

THE PERMITTEE AGREES THAT ALL WORK WITHIN THE EXISTING RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH THE CURRENT KYTC STANDARD SPECIFICATIONS AND THE PLANS AS APPROVED AND PERMITTED BY AN ENCROACHMENT PERMIT. ANY CHANGES OR VARIANCES MADE AT THE TIME OF CONSTRUCTION WITHOUT WRITTEN APPROVAL FROM THE DEPARTMENT OF HIGHWAYS SHALL BE REMOVED BY THE PERMITTEE AT NO EXPENSE TO THE DEPARTMENT OF HIGHWAYS AND SHALL BE REDONE BY THE PERMITTEE TO CONFORM WITH THE APPROVED PLANS.

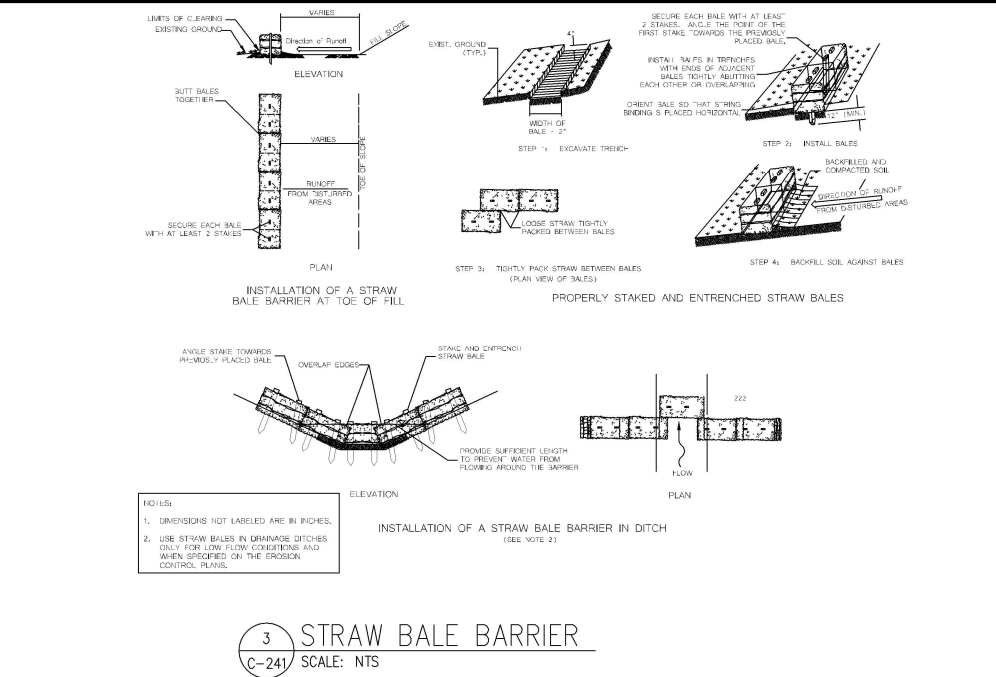
KENTUCKY TRANSPORTATION CABINET
APPROVED
T06-2023-00633



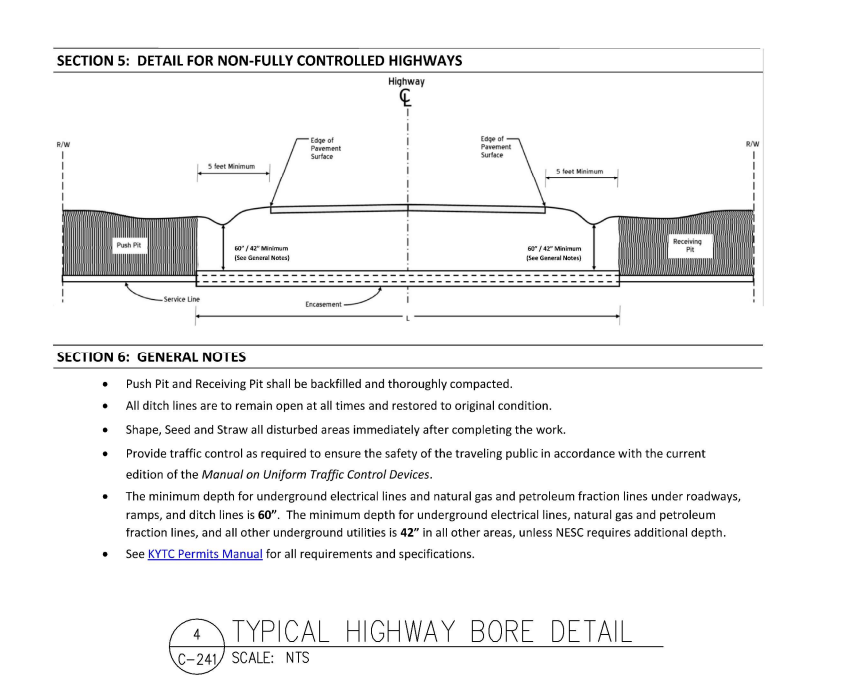
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SCALE: NTS



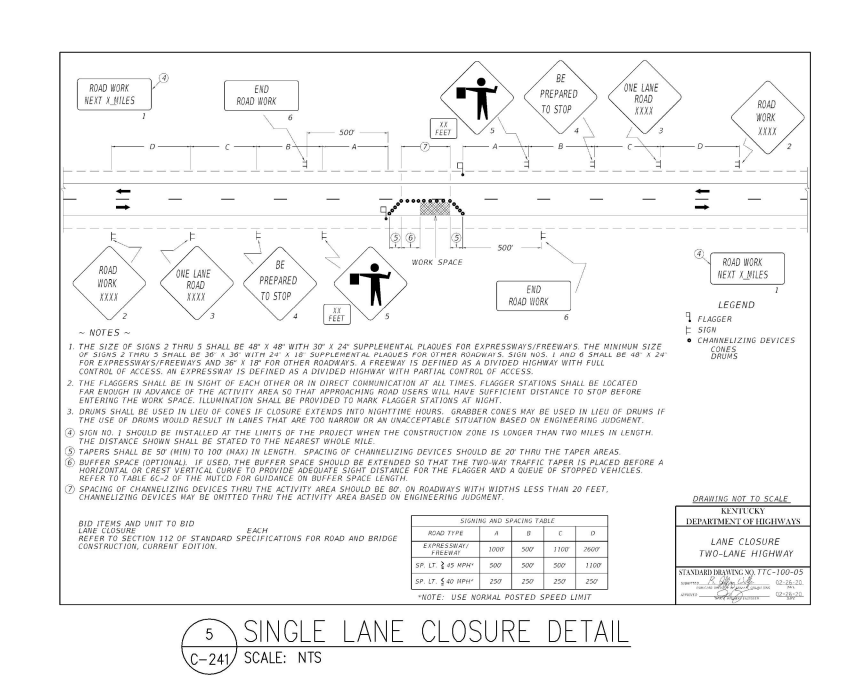
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SCALE: NTS



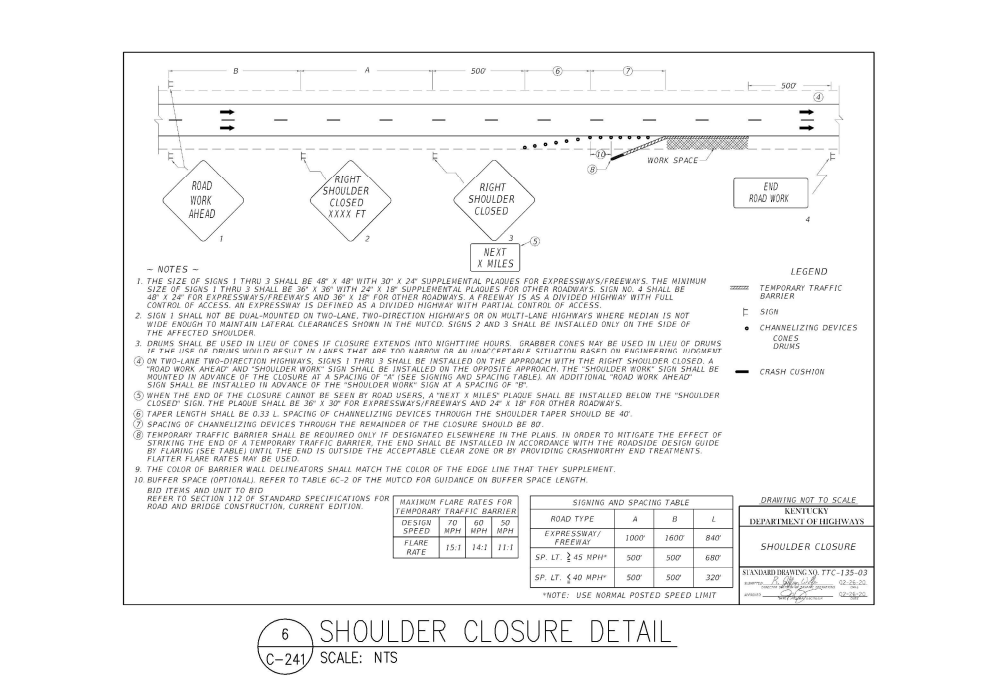
3 DWG NO. 115
SCALE: NTS



4 DWG NO. 116
SCALE: NTS



5 DWG NO. 117
SCALE: NTS



6 DWG NO. 118
SCALE: NTS

REVISIONS

DATE	#	ITEM

CARDINAL ENGINEERING LAND SURVEYING
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE: (859) 581-9600
FAX: (859) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

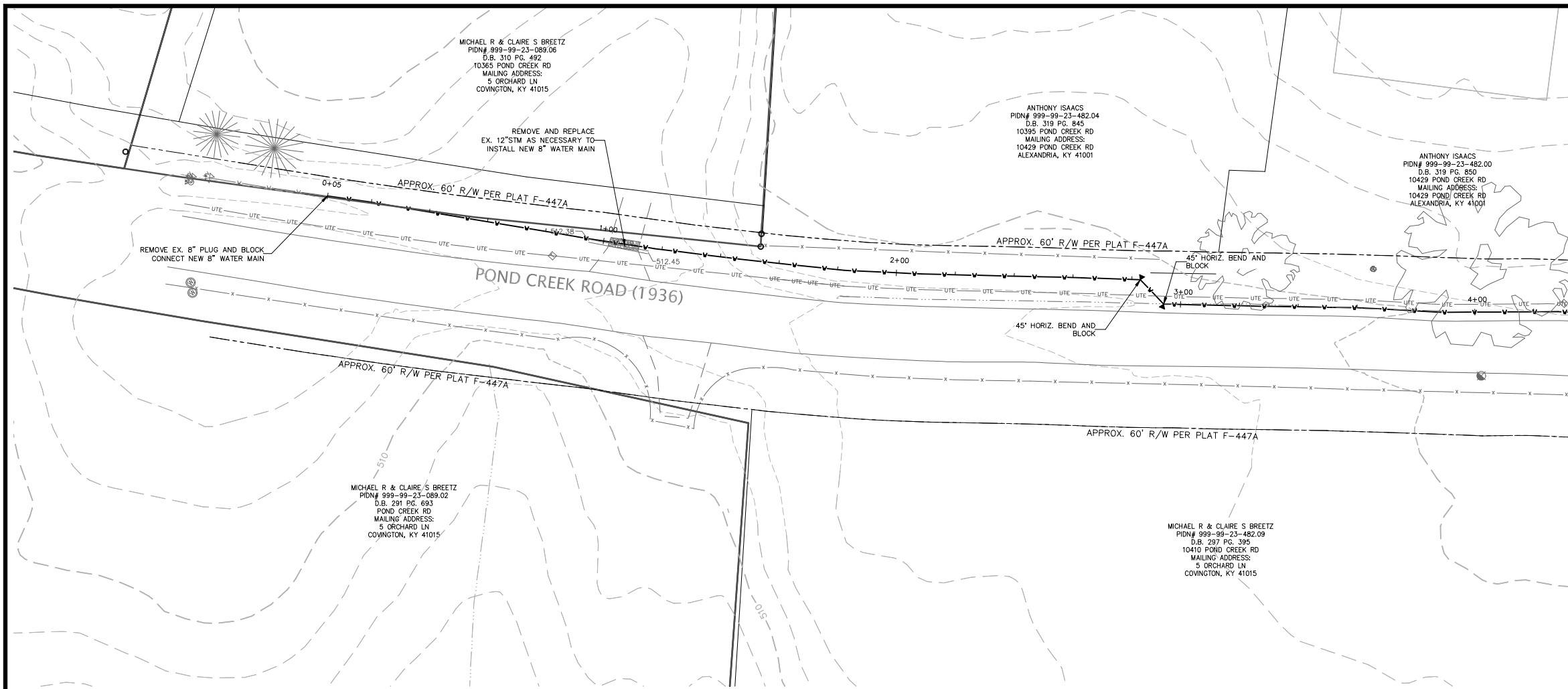
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CHECKED BY: KGH

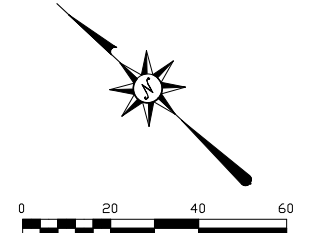
PROJECT NO. 23-001
SCALE: AS NOTED
DATE: 1-11-23

WATER DETAILS
SHEET: C-241

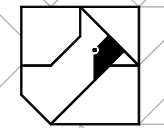
APPROVED
JULY 20, 2023
KENTUCKY TRANSPORTATION CABINET



SEE SHEET C-544



REVISIONS	DATE	#	ITEM



CARDINAL
ENGINEERING
LAND SURVEYING
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE: (505) 581-9600
FAX: (505) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

GEOTECHNICAL GENERAL NOTES:

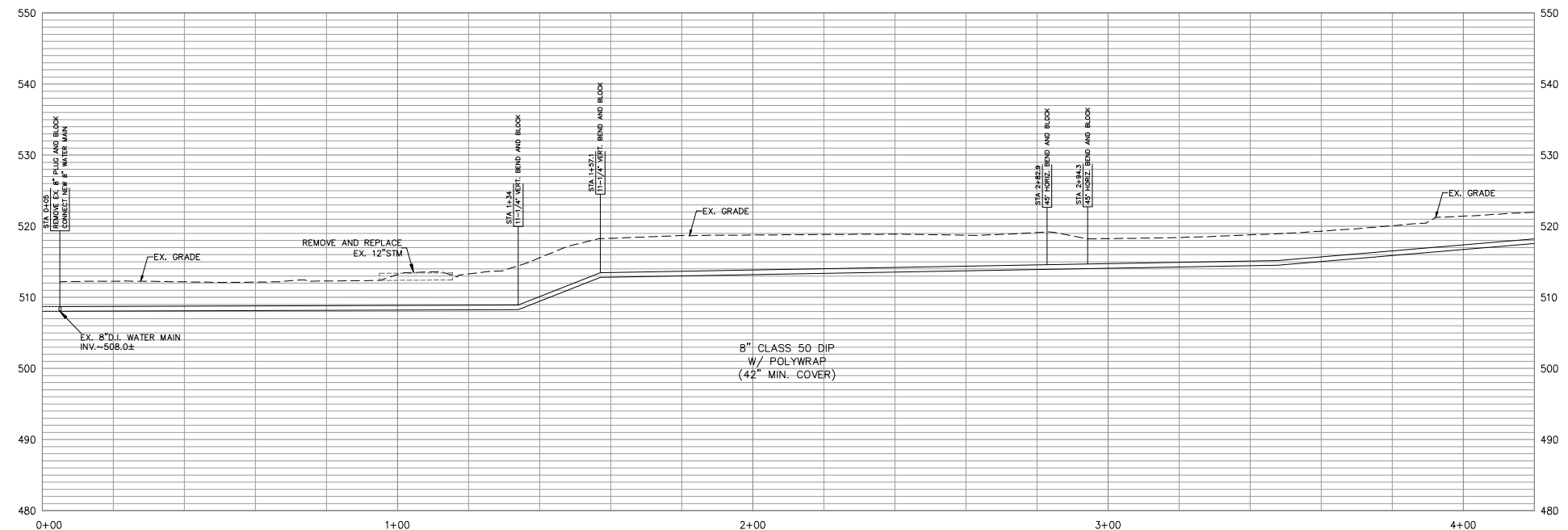
- FOR ALL EARTHWORK OPERATIONS, POSITIVE SURFACE DRAINAGE IS PRUDENT TO KEEP WATER FROM PONDING ON THE SURFACE AND TO ASSIST IN MAINTAINING SURFACE STABILITY;
- THE SURFACE SHOULD BE SEALED PRIOR TO EXPECTED WET WEATHER. THIS CAN USUALLY BE ACCOMPLISHED WITH RUBBER-TIRED CONSTRUCTION EQUIPMENT OR A STEEL-DRUM ROLLER;
- IF ANY SOIL PLACEMENT PROBLEMS OCCUR, CSI SHOULD BE RETAINED TO PROVIDE ADDITIONAL RECOMMENDATIONS, AS NEEDED;
- CONTRACTOR SHALL REVIEW GEOTECHNICAL REPORT PREPARED BY CONSULTING SERVICES INCORPORATED (CSI), DATED JUNE, 28, 2023, PROJECT NO. CN230010, PRIOR TO BIDDING THE PROJECT.

DITCH MAINTENANCE/RESTORATION NOTES:

- CONTRACTOR SHALL ESTABLISH POSITIVE DRAINAGE IN DITCH LINE AT THE END OF EACH WORKING DAY. DISTURBED SECTIONS OF DITCH SHALL BE RESTORED WITH EROSION CONTROL BLANKET PER KYTC STANDARD DRAWING RDI-041 (3/C-241). MATERIALS, EQUIPMENT, AND FILL DIRT SHALL NOT BE STOCKPILED IN DITCH.

MISC. WATER MAIN CONSTRUCTION NOTE

- THE COST FOR TESTING THE WATER MAIN, TEMPORARY FLUSHING DEVICES, TEMPORARY PLUGS AND BLOCKS BE INCIDENTAL TO THE PROJECT.



APPROVED
JULY 23, 2023
KENTUCKY TRANSPORTATION CABINET

360-227-6663

DRAWN BY: SEAL
KCH

CHECKED BY: -
KCH

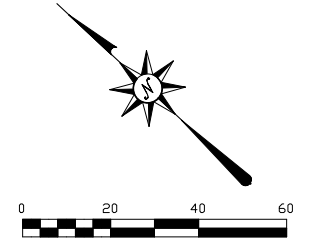
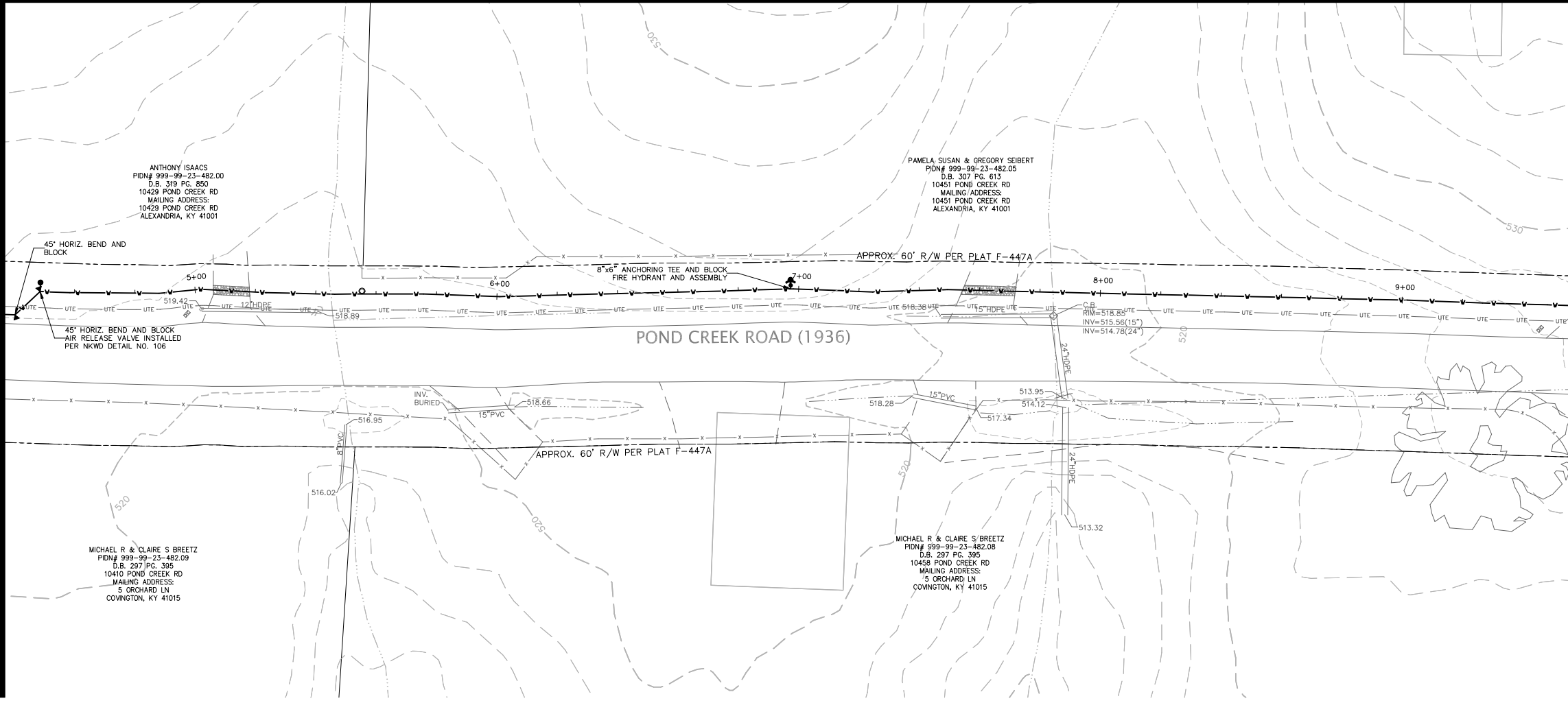
PROJECT MANAGER: KCH

PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE
SHEET C-543

SEE SHEET C-543

SEE SHEET C-545



REVISIONS	DATE	#	ITEM

CARDINAL
ENGINEERING
LAND SURVEYING
ONE MOCK ROAD
WELDER, KENTUCKY 41071
PHONE: (505) 581-9600
FAX: (559) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

PROJECT:
WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT:
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

GEOTECHNICAL GENERAL NOTES:

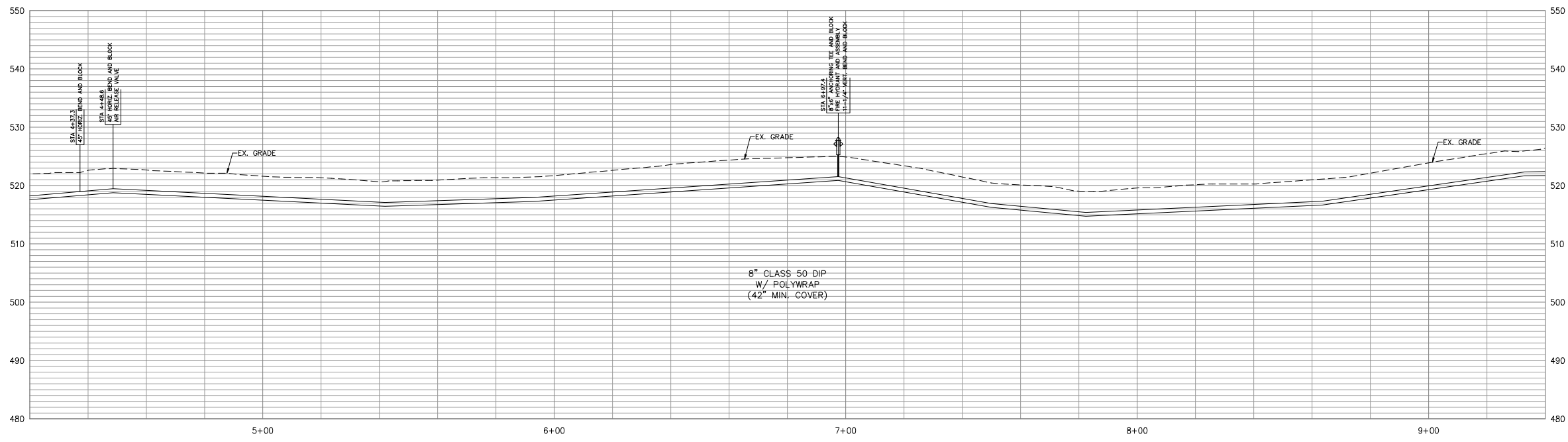
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- CONTRACTOR SHALL REVIEW GEOTECHNICAL REPORT PREPARED BY CONSULTING SERVICES INCORPORATED (CSI), DATED JUNE, 28, 2023, PROJECT NO. CN230010, PRIOR TO BIDDING THE PROJECT.

DITCH MAINTENANCE/RESTORATION NOTES:

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MISC. WATER MAIN CONSTRUCTION NOTE

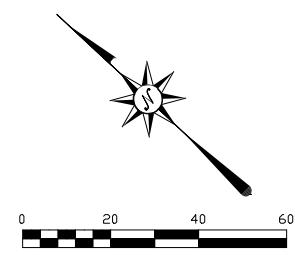
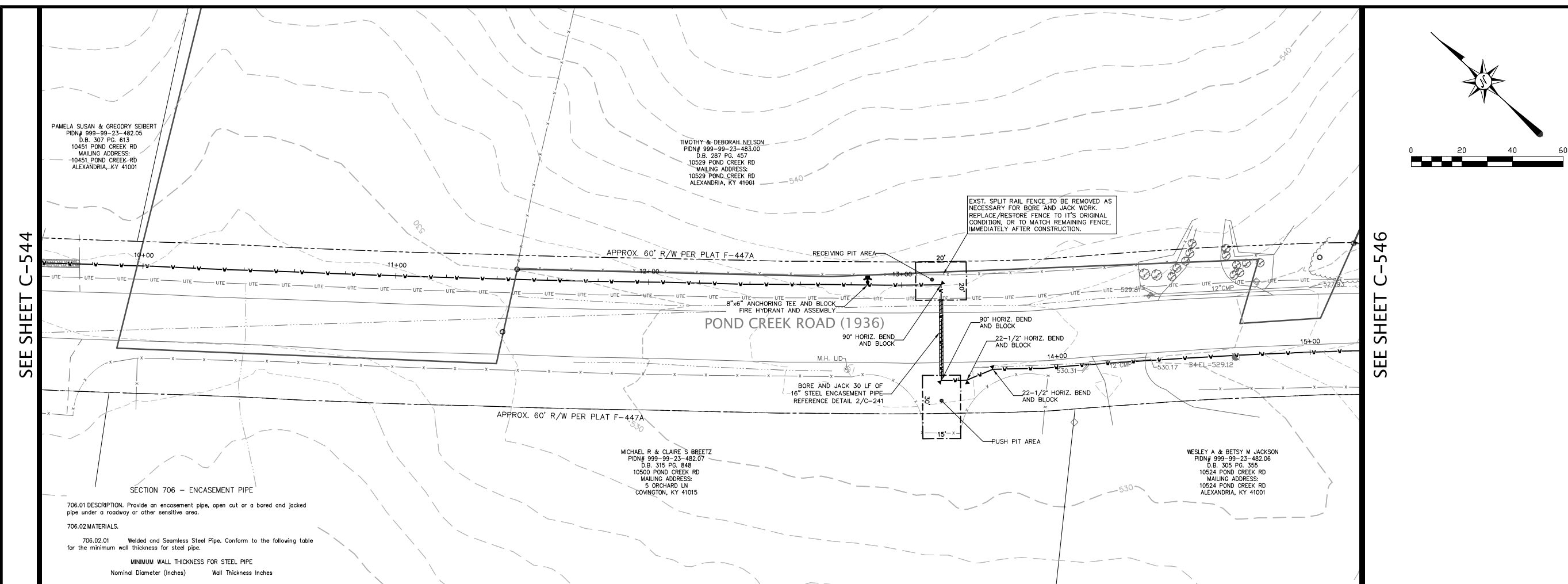
- THE COST FOR TESTING THE WATER MAIN, TEMPORARY FLUSHING DEVICES, TEMPORARY PLUGS AND BLOCKS BE INCIDENTAL TO THE PROJECT.



APPROVED
JULY 23, 2023
KENTUCKY TRANSPORTATION CABINET

PROJECT NO. 23-001
SCALE AS NOTED
DATE 01-11-23

PLAN & PROFILE
SHEET **C-544**



PAMELA SUSAN & GREGORY SEIBERT
 PID# 999-99-23-482.05
 D.B. 307 PG. 613
 10451 POND CREEK RD
 MAILING ADDRESS:
 10451 POND CREEK RD
 ALEXANDRIA, KY 41001

TIMOTHY & DEBORAH NELSON
 PID# 999-99-23-483.00
 D.B. 287 PG. 457
 10529 POND CREEK RD
 MAILING ADDRESS:
 10529 POND CREEK RD
 ALEXANDRIA, KY 41001

MICHAEL R & CLAIRE S BREITZ
 PID# 999-99-23-482.07
 D.B. 315 PG. 848
 10500 POND CREEK RD
 MAILING ADDRESS:
 5 ORCHARD LN
 COVINGTON, KY 41015

WESLEY A & BETSY M JACKSON
 PID# 999-99-23-482.06
 D.B. 305 PG. 355
 10524 POND CREEK RD
 MAILING ADDRESS:
 10524 POND CREEK RD
 ALEXANDRIA, KY 41001

706.01 DESCRIPTION. Provide an encasement pipe, open cut or a bored and jacked pipe under a roadway or other sensitive area.

706.02 MATERIALS.

706.02.01 Welded and Seamless Steel Pipe. Conform to the following table for the minimum wall thickness for steel pipe.

MINIMUM WALL THICKNESS FOR STEEL PIPE	
Nominal Diameter (Inches)	Wall Thickness Inches
0.375	0.375
0.500	0.500
0.500	0.500
0.532	0.532
0.625	0.625

706.03 CONSTRUCTION.

706.03.01 Open Cut. Install the pipe according to the manufacturer's specifications and installation procedures. When the Engineer requests, provide a manufacturer's technical representative to assist in pipe installation.

706.03.02 Bore and Jack. Construct access pits on both sides of the area to be tunneled, one for the boring equipment and one on the receiving end. Use a boring and jacking machine that is capable of keeping the advanced bore hole within the required alignment. Maintain the position of the guide rails to the proper line and grade, immediately correcting any possible displacement, until completing the boring and jacking operation. Use a smooth casing pipe of sufficient strength and diameter to provide a tight fit against the earth sides of the bore hole and of sufficient size to allow installation of the carrier pipe and any required positive anchorage. Weld the joints with a continuous circumferential weld. Frequently check the line and grade and adjust the alignment as practical. When a physical obstruction or other situation requires the abandonment of a partially completed bore hole and the starting of a new hole, backfill as the Engineer directs.

GEOTECHNICAL GENERAL NOTES:

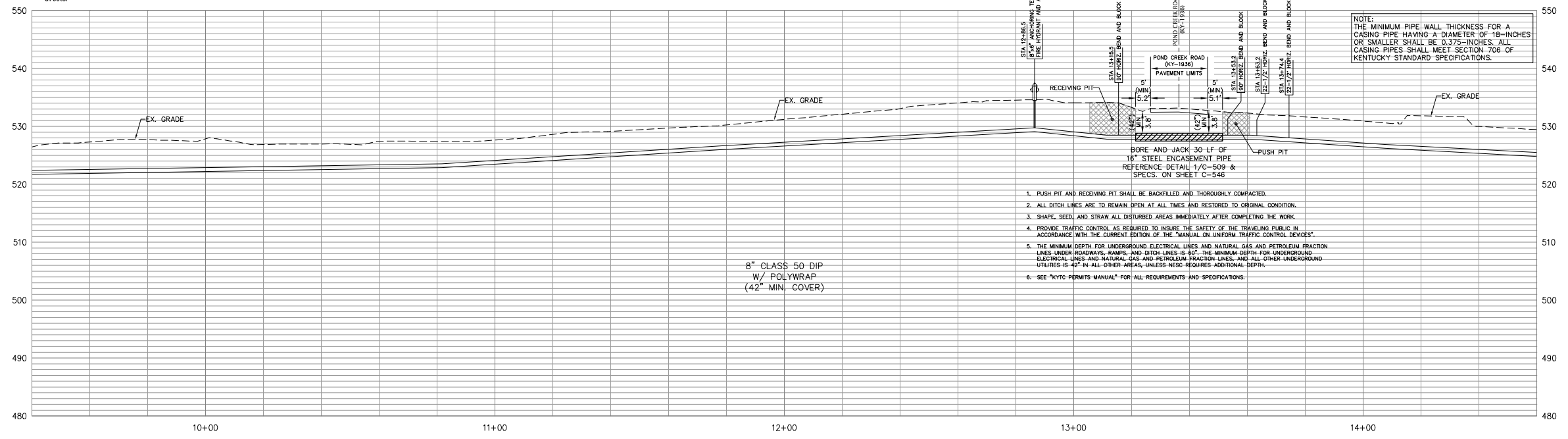
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MISC. WATER MAIN CONSTRUCTION NOTE

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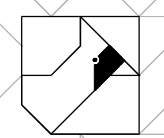
DITCH MAINTENANCE/RESTORATION NOTES:

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- PUSH PIT AND RECEIVING PIT SHALL BE BACKFILLED AND THOROUGHLY COMPACTED.
- ALL DITCH LINES ARE TO REMAIN OPEN AT ALL TIMES AND RESTORED TO ORIGINAL CONDITION.
- SHAPE, SEED, AND STRAW ALL DISTURBED AREAS IMMEDIATELY AFTER COMPLETING THE WORK.
- PROVIDE TRAFFIC CONTROL AS REQUIRED TO INSURE THE SAFETY OF THE TRAVELING PUBLIC IN ACCORDANCE WITH THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
- THE MINIMUM DEPTH FOR UNDERGROUND ELECTRICAL LINES AND NATURAL GAS AND PETROLEUM FRACTION LINES UNDER ROADWAYS, RAMPS, AND DITCH LINES IS 42". THE MINIMUM DEPTH FOR UNDERGROUND ELECTRICAL LINES AND NATURAL GAS AND PETROLEUM FRACTION LINES, AND ALL OTHER UNDERGROUND UTILITIES IS 42" IN ALL OTHER AREAS, UNLESS NESC REQUIRES ADDITIONAL DEPTH.
- SEE "KYTC PERMITS MANUAL" FOR ALL REQUIREMENTS AND SPECIFICATIONS.

REVISIONS	DATE	#	ITEM



CARDINAL
 ENGINEERING
 LAND SURVEYING
 ONE MOOCK ROAD
 WILDER, KENTUCKY 41071
 PHONE: (859) 581-0600
 FAX: (859) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

PROJECT:
WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT:
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

DRAWN BY: SEAL

CHECKED BY:

PROJECT MANAGER:

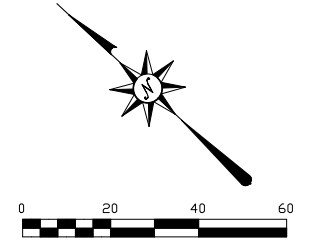
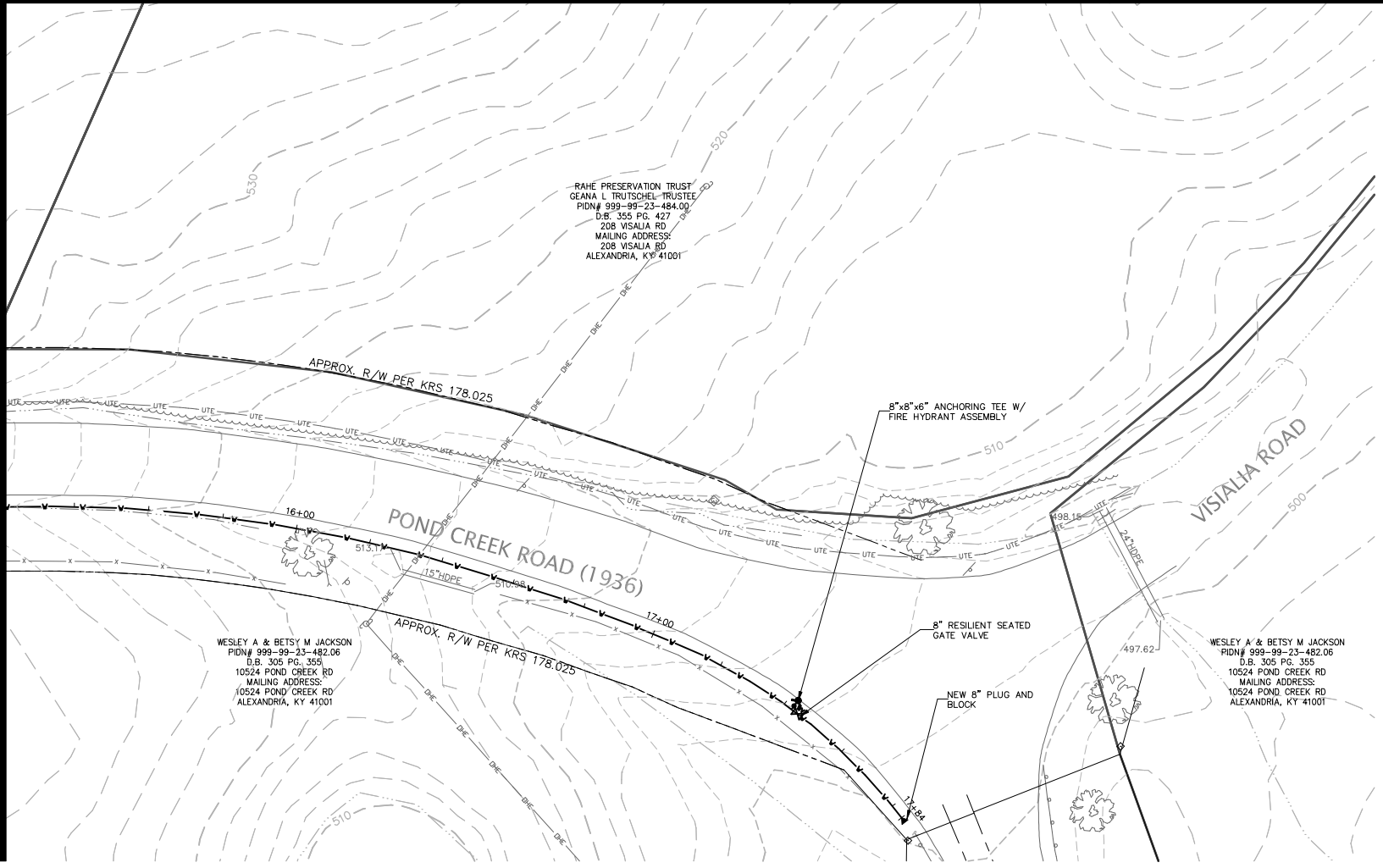
PROJECT NO. 23-001
 SCALE AS NOTED
 DATE 01-11-23

PLAN & PROFILE

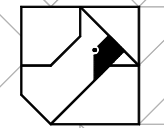
SHEET
C-545

APPROVED
 JULY 20, 2023
 KENTUCKY TRANSPORTATION CABINET
 360-422-3333

SEE SHEET C-545



REVISIONS	DATE	#	ITEM



CARDINAL
ENGINEERING
LAND SURVEYING
ONE MOOCK ROAD
WILDER, KENTUCKY 41071
PHONE: (505) 581-9600
FAX: (505) 581-9636

WEBSITE: <http://www.cardinalengineering.net>

PROJECT: WATER MAIN PLAN
SUB DISTRICT HB WATER MAIN EXTENSION

CLIENT: NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
ERLANGER, KY 41018-0640

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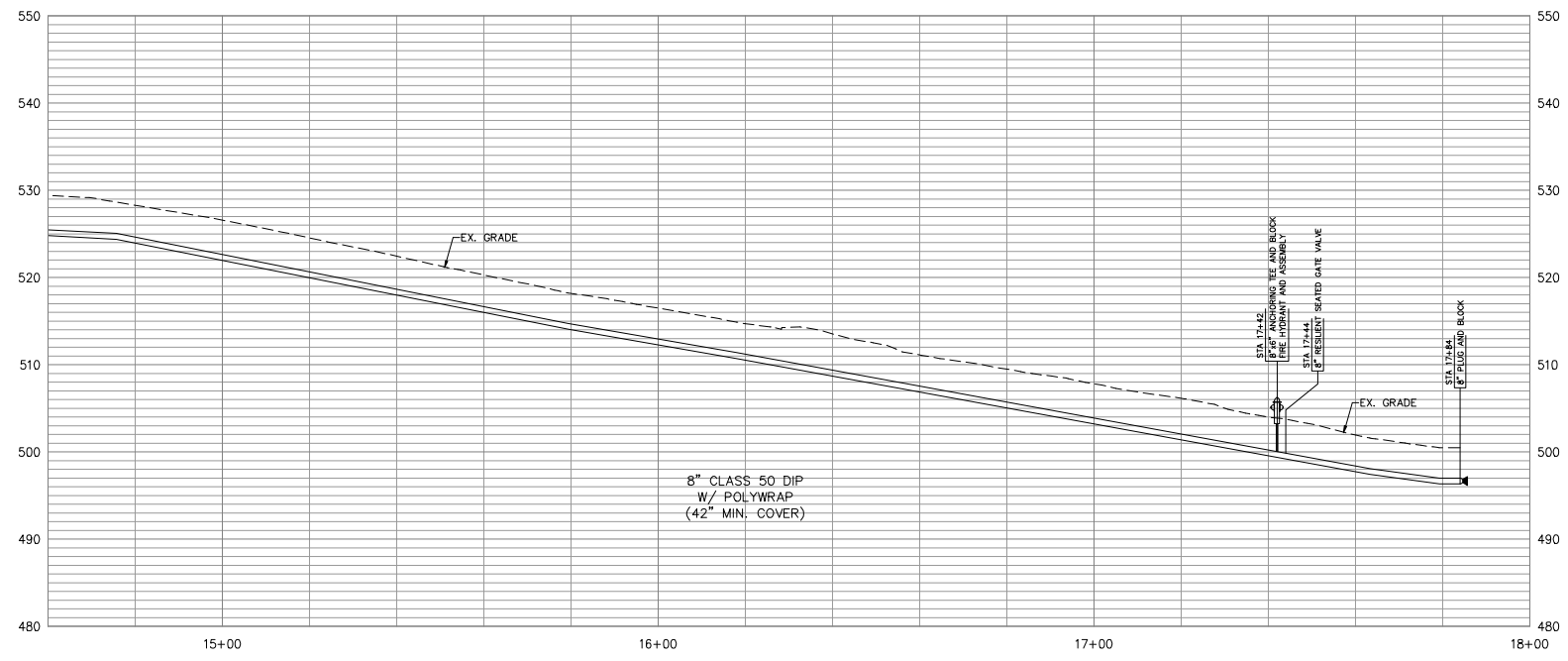
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MISC. WATER MAIN CONSTRUCTION NOTE

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APPROVED
JULY 20, 2023
KENTUCKY TRANSPORTATION CABINET

360-227-00633

DRAWN BY:	SEAL
CHECKED BY:	KGH
PROJECT MANAGER:	KGH
PROJECT NO.:	23-001
SCALE:	AS NOTED
DATE:	01-11-23

PLAN & PROFILE
SHEET **C-546**



**TYPICAL HIGHWAY BORE DETAIL
 - FOR NON-FULLY CONTROLLED HIGHWAYS -**

KYTC KEPT #: _____

SECTION 1: HIGHWAY INFORMATION

COUNTY: Campbell	ROUTE: KY 1936	MILE POINT: 6.94	PAVEMENT WIDTH: 19.75'
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SECTION 2: UTILITY INFORMATION

UTILITY TYPE: Water	PIPE TYPE: Ductile Iron Pipe	DIAMETER: 8"
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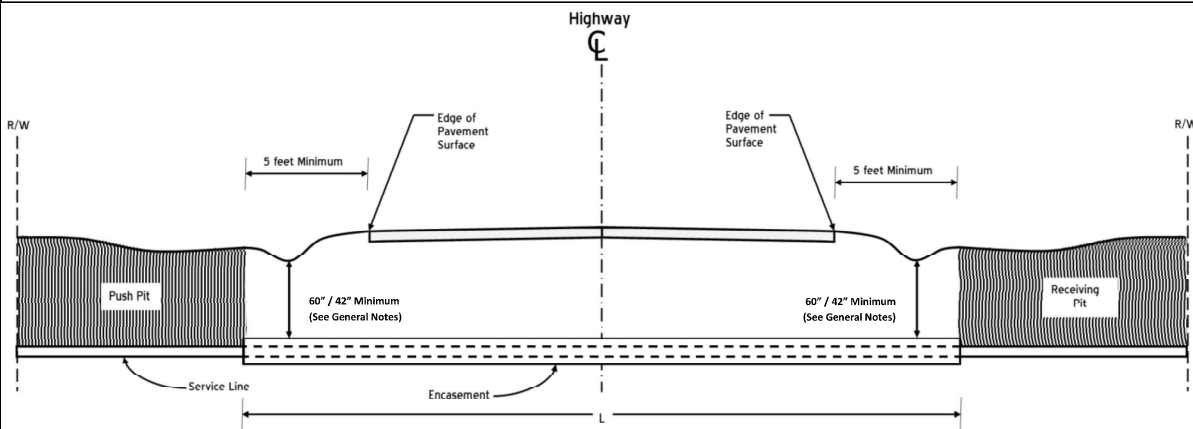
SECTION 3: ENCASEMENT INFORMATION

ENCASEMENT TYPE: Steel	DIAMETER: 16"
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SECTION 4: BORE INFORMATION

BORE TYPE: Bore & jack	LENGTH (L): 30 LF	DIAMETER: 16"
----------------------------------	-----------------------------	-------------------------

SECTION 5: DETAIL FOR NON-FULLY CONTROLLED HIGHWAYS



SECTION 6: GENERAL NOTES

- Push Pit and Receiving Pit shall be backfilled and thoroughly compacted.
- All ditch lines are to remain open at all times and restored to original condition.
- Shape, Seed and Straw all disturbed areas immediately after completing the work.
- Provide traffic control as required to ensure the safety of the traveling public in accordance with the current edition of the *Manual on Uniform Traffic Control Devices*.
- The minimum depth for underground electrical lines and natural gas and petroleum fraction lines under roadways, ramps, and ditch lines is **60"**. The minimum depth for underground electrical lines, natural gas and petroleum fraction lines, and all other underground utilities is **42"** in all other areas, unless NESC requires additional depth.
- See [KYTC Permits Manual](#) for all requirements and specifications.

APPROVED
 JULY 21, 2023
 KENTUCKY TRANSPORTATION CABINET
 06-2023-00633

From: [Kool, Kenneth H \(KYTC-D06\)](#)
To: [Steve Broering](#)
Subject: *EXTERNAL* RE: *EXTERNAL* RE: *EXTERNAL* RE: KY 1936 Pond Creek Road
Date: Monday, March 25, 2024 7:04:38 AM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thanks! I have updated our files.

From: Steve Broering <sbroering@nkywater.org>
Sent: Friday, March 22, 2024 3:14 PM
To: Kool, Kenneth H (KYTC-D06) <Kenny.Kool@ky.gov>
Subject: RE: *EXTERNAL* RE: *EXTERNAL* RE: KY 1936 Pond Creek Road

****CAUTION** PDF attachments may contain links to malicious sites. Please contact the COT Service Desk ServiceCorrespondence@ky.gov for any assistance.**

Kenny,

Attached is updated Sheet C-545 that depicts the change in the road crossing and restoration requirements.

This drawing is an update for KYTC permit 06-2023-00633

Thank you for getting this approved.

Regards,
Steve Broering
NKWD

From: Kool, Kenneth H (KYTC-D06) <Kenny.Kool@ky.gov>
Sent: Thursday, March 21, 2024 9:22 AM
To: Steve Broering <sbroering@nkywater.org>
Subject: *EXTERNAL* RE: *EXTERNAL* RE: KY 1936 Pond Creek Road

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Steve,

The crossing will be permitted to cross at a 45 degree angle.

Thanks,

Kenny Kool

KYTC District 6 Permits
(859) 341-2700

From: Steve Broering <sbroering@nkywater.org>
Sent: Friday, March 15, 2024 10:02 AM
To: Kool, Kenneth H (KYTC-D06) <Kenny.Kool@ky.gov>
Subject: RE: *EXTERNAL* RE: KY 1936 Pond Creek Road

Kenny,

I have one more question about the crossing. Can the crossing be at a 45 degree angle or must it be a 90 degree angle? I want to give my engineer some direction before he finishes modifying the plan sheet. From the Water Districts perspective, it is easier to place concrete blocking behind 45 degree fittings vs. 90 degree fitting and have everything stay together.

Thanks,
Steve Broering
NKWD
859-426-2728

From: Kool, Kenneth H (KYTC-D06) <Kenny.Kool@ky.gov>
Sent: Friday, March 1, 2024 1:36 PM
To: Steve Broering <sbroering@nkywater.org>
Subject: *EXTERNAL* RE: KY 1936 Pond Creek Road

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Steve,

The proposed crossing will be permitted to be open cut. Please send the revised plan sheet showing the trench being backfilled with flowable fill to the bottom of the existing pavement section and the remainder of the pavement section being filled with asphalt base to the surface. After 2 weeks, the entire width of the road will need to be milled 1.5" deep 25' on each side of the trench and replaced with 1.5" asphalt surface. Feel free to reach out to me with any questions.

Thanks,

Kenny Kool
KYTC District 6 Permits
(859) 341-2700

From: Steve Broering <sbroering@nkywater.org>
Sent: Monday, February 19, 2024 2:55 PM
To: Kool, Kenneth H (KYTC-D06) <Kenny.Kool@ky.gov>
Subject: FW: KY 1936 Pond Creek Road

****CAUTION** PDF attachments may contain links to malicious sites. Please contact the COT Service Desk ServiceCorrespondence@ky.gov for any assistance.**

Kenny,

The Northern Kentucky Water District is requesting to install a water main across KY 1936. The original plan was to bore and jack the proposed water main under the roadway. The District has been unsuccessful in negotiating an easement for the bore pit. It was requested by KYTC to look for another place for a bore pit along the road. The attached map shows that all the property is owned by Michael Breetz from the beginning of the project to where the proposed water main crosses the road. Moving the crossing further down the road is complicated by the next driveway which is heavily landscaped and hard to replace and the topography of the right of way is much steeper for installation of the water main.

From: Steve Broering
Sent: Monday, February 5, 2024 2:59 PM
To: Linzy Brefeld (linzy.brefeld@ky.gov) <linzy.brefeld@ky.gov>
Subject: KY 1936 Pond Creek Road

Linzy,

The Water District is having difficulty in acquiring the easement for crossing Pond Creek Road. We are requesting to change the existing permit to allow crossing the road with an open cut followed up by mill and pave restoration. The crossing would be similar to the work that will be done on KY 915. KY 915 - KYTC permit 06-2023-00633
KY 1936 – KYTC permit 06-2023-00633

Please see attachments.

If you need to discuss the project I can be reached via email or at 859-426-2728.

Regards,
Steve Broering
Northern Kentucky Water District