



CALL NO. 321

CONTRACT ID. 242952

GRANT COUNTY

FED/STATE PROJECT NUMBER FE02 041 1942 B00019N

DESCRIPTION ELLISTON-MT. ZION ROAD (KY 1942)

WORK TYPE BRIDGE REPLACEMENT

PRIMARY COMPLETION DATE 7/31/2025

LETTING DATE: August 22,2024

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME August 22,2024. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

REQUIRED BID PROPOSAL GUARANTY: Not less than 5% of the total bid.

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PART I
SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 06

CONTRACT ID - 242952
FE02 041 1942 B00019N
COUNTY - GRANT
PCN - MB04119422402
FE02 041 1942 B00019N

ELLISTON-MT. ZION ROAD (KY 1942) REPLACE BRIDGE 041B00019N OVER NAPOLEON BRANCH AT MP
01.76BRIDGE REPLACEMENT SYP NO. 06-40001.00.
GEOGRAPHIC COORDINATES LATITUDE 38:44:05.00 LONGITUDE 84:44:59.00
ADT

COMPLETION DATE(S):

COMPLETED BY 07/31/2025
75 CALENDAR Days

APPLIES TO ENTIRE CONTRACT
APPLIES TO 041B00019N

CONTRACT NOTES

PROPOSAL ADDENDA

All addenda to this proposal must be applied when calculating bid and certified in the bid packet submitted to the Kentucky Department of Highways. Failure to use the correct and most recent addenda may result in the bid being rejected.

BID SUBMITTAL

Bidder must use the Department's electronic bidding software. The Bidder must download the bid file located on the Bid Express website (www.bidx.com) to prepare a bid packet for submission to the Department. The bidder must submit electronically using Bid Express.

JOINT VENTURE BIDDING

Joint venture bidding is permissible. All companies in the joint venture must be prequalified in one of the work types in the Qualifications for Bidders for the project. The bidders must get a vendor ID for the joint venture from the Division of Construction Procurement and register the joint venture as a bidder on the project. Also, the joint venture must obtain a digital ID from Bid Express to submit a bid. A joint bid bond of 5% may be submitted for both companies or each company may submit a separate bond of 5%.

UNDERGROUND FACILITY DAMAGE PROTECTION

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. When prescribed in said directives, the contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom shall be contacted through their individual Protection Notification Center. Non-compliance with these directives can result in the enforcement of penalties.

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

Pursuant to KRS 176.085(1)(b), an agency, department, office, or political subdivision of the Commonwealth of Kentucky shall not award a state contract to a person that is a foreign entity required by [KRS 14A.9-010](#) to obtain a certificate of authority to transact business in the Commonwealth ("certificate") from the Secretary of State under [KRS 14A.9-030](#) unless the person produces the certificate within fourteen (14) days of the bid or proposal opening. If the foreign entity is not required to obtain a certificate as provided in [KRS 14A.9-010](#), the foreign entity should identify the applicable exception. Foreign entity is defined within [KRS 14A.1-070](#).

For all foreign entities required to obtain a certificate of authority to transact business in the Commonwealth, if a copy of the certificate is not received by the contracting agency within the time frame identified above, the foreign entity's solicitation response shall be deemed non-responsive or the awarded contract shall be cancelled.

Businesses can register with the Secretary of State at <https://secure.kentucky.gov/sos/ftbr/welcome.aspx>.

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

Questions about projects during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by email to kytc.projectquestions@ky.gov. The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

The deadline for posting answers will be 3:00 pm Eastern Daylight Time, the day preceding the Letting. Questions may be submitted until this deadline with the understanding that the later a question is submitted, the less likely an answer will be able to be provided.

The questions and answers will be posted for each Letting under the heading "Questions & Answers" on the Construction Procurement website (www.transportation.ky.gov/construction-procurement). The answers provided shall be considered part of this Special Note and, in case of a discrepancy, will govern over all other bidding documents.

HARDWOOD REMOVAL RESTRICTIONS

The US Department of Agriculture has imposed a quarantine in Kentucky and several surrounding states, to prevent the spread of an invasive insect, the emerald ash borer. Hardwood cut in conjunction with the project may not be removed from the state. Chipping or burning on site is the preferred method of disposal.

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

Identification of excess material sites and borrow sites shall be the responsibility of the Contractor. The Contractor shall be responsible for compliance with all applicable state and federal laws and may wish to consult with the US Fish and Wildlife Service to seek protection under Section 10 of the Endangered Species Act for these activities.

ACCESS TO RECORDS

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and

shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

In the event of a dispute between the contractor and the contracting agency, Attorney General, or the Auditor of Public Accounts over documents that are eligible for production and review, the Finance and Administration Cabinet shall review the dispute and issue a determination, in accordance with Secretary's Order 11-004.

BOYCOTT PROVISIONS

If applicable, the contractor represents that, pursuant to [KRS 45A.607](#), they are not currently engaged in, and will not for the duration of the contract engage in, the boycott of a person or an entity based in or doing business with a jurisdiction with which Kentucky can enjoy open trade. **Note:** The term Boycott does not include actions taken for bona fide business or economic reasons, or actions specifically required by federal or state law.

If applicable, the contractor verifies that, pursuant to KRS 41.480, they do not engage in, and will not for the duration of the contract engage in, in energy company boycotts as defined by KRS 41.472.

LOBBYING PROHIBITIONS

The contractor represents that they, and any subcontractor performing work under the contract, have not violated the agency restrictions contained in [KRS 11A.236](#) during the previous ten (10) years, and pledges to abide by the restrictions set forth in such statute for the duration of the contract awarded.

The contractor further represents that, pursuant to [KRS 45A.328](#), they have not procured an original, subsequent, or similar contract while employing an executive agency lobbyist who was convicted of a crime related to the original, subsequent, or similar contract within five (5) years of the conviction of the lobbyist.

Revised: 2/29/2024

1.0 BUY AMERICA REQUIREMENT.

Follow the “Buy America” provisions as required by 23 U.S.C. § 313 and 23 C.F.R. § 635.410. Except as expressly provided herein all manufacturing processes of steel or iron materials including but not limited to structural steel, guardrail materials, corrugated steel, culvert pipe, structural plate, prestressing strands, and steel reinforcing bars shall occur in the United States of America, including the application of:

- Coating,
- Galvanizing,
- Painting, and
- Other coating that protects or enhances the value of steel or iron products.

The following are exempt, unless processed or refined to include substantial amounts of steel or iron material, and may be used regardless of source in the domestic manufacturing process for steel or iron material:

- Pig iron,
- Processed, pelletized, and reduced iron ore material, or
- Processed alloys.

The Contractor shall submit a certification stating that all manufacturing processes involved with the production of steel or iron materials occurred in the United States.

Produce, mill, fabricate, and manufacture in the United States of America all aluminum components of bridges, tunnels, and large sign support systems, for which either shop fabrication, shop inspection, or certified mill test reports are required as the basis of acceptance by the Department.

Use foreign materials only under the following conditions:

- 1) When the materials are not permanently incorporated into the project; or
- 2) When the delivered cost of such materials used does not exceed 0.1 percent of the total Contract amount or \$2,500.00, whichever is greater.

The Contractor shall submit to the Engineer the origin and value of any foreign material used.

2.0 – BUILD AMERICA, BUY AMERICA (BABA)

Contractor shall comply with the Federal Highway Administration (FHWA) Buy America Requirement in 23 C.F.R. § 635.410 and all relevant provisions of the Build America, Buy America Act (BABA), contained within the Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, §§ 70901-52 enacted November 15, 2021. The BABA requires iron, steel, manufactured products, and construction materials used in infrastructure projects funded by federal financial assistance to be produced in the United States. Comply with 2 C.F.R § 184.

BABA permits FHWA participation in the Contract only if domestic steel and iron will be used on the Project. To be considered domestic, all steel and iron used, and all products manufactured from steel and iron must be produced in the United States and all manufacturing processes, including application of a coating, for these materials must occur in the United States. Coating includes all processes that protect or enhance the value of the material to which the coating is applied. This requirement does not preclude a minimal use of foreign steel and iron materials, provided the cost of such materials does not exceed 0.1% of the total contract amount under the Contract or \$2,500.00 whichever is greater.

BABA permits FHWA participation in the Contract only if all “construction materials” as defined in the Act are made in the United States. The Buy America preference applies to the following construction materials

SPECIAL NOTE – BUY AMERICA REQUIREMENTS AND BUILD
AMERICA, BUY AMERICA (BABA) ACT

10/26/2023

incorporated into infrastructure projects: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); Fiber optic cable; optical fiber; lumber; engineered wood; and drywall. Contractor will be required to use construction materials produced in the United States on this Project. The Contractor shall submit a certification stating that all construction materials are certified to be BABA compliant.

Finally, BABA permits the continuation of FHWA's current general applicability waivers for manufactured products, raw materials, and ferryboat parts, but these waivers are subject to reevaluation, specifically the general applicability waiver for manufactured products.

The Contractor has completed and submitted, or shall complete and submit, to the Cabinet a Buy America/Build America, Buy America Certificate prior to the Cabinet issuing the notice to proceed, in the format below. After submittal, the Contractor is bound by its original certification.

A false certification is a criminal act in violation of 18 U.S.C. § 1001. The Contractor has the burden of proof to establish that it is in compliance.

At the Contractor's request, the Cabinet may, but is not obligated to, seek a waiver of Buy America requirements if grounds for the waiver exist under 23 C.F.R. § 635.410(c) or will comply with the applicable Buy America requirements if a waiver of those requirements is not available or not pursued by the Cabinet.

Please refer to the Federal Highway Administration's Buy America webpage for more information.

[Buy America - Construction Program Guide - Contract Administration - Construction - Federal Highway Administration \(dot.gov\)](#)

October 26, 2023 Letting

BUY AMERICA / BUILD AMERICA, BUY AMERICA (ACT) MATERIALS CERTIFICATE OF COMPLIANCE

The Contractor hereby certifies that it will comply with all relevant provisions of the Build America, Buy America Act, contained within the Infrastructure Investment and Jobs Act, Pub. L. NO. 117-58, §§ 70901-52, the requirements of 23 U.S.C. § 313, 23 C.F.R. § 635.410 and 2 C.F.R § 184.

Date Submitted:_____

Contractor:_____

Signature:_____

Printed Name:_____

Title:_____

NOTE: THIS CERTIFICATION IS IN ADDITION TO ANY AND ALL REQUIREMENTS OUTLINED IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND/OR SPECIAL NOTES CONTAINED IN THE PROJECT PROPOSAL.

SPECIAL NOTE FOR RECIPROCAL PREFERENCE

RECIPROCAL PREFERENCE TO BE GIVEN BY PUBLIC AGENCIES TO RESIDENT BIDDERS

By reference, KRS 45A.490 to 45A.494 are incorporated herein and in compliance regarding the bidders residency. Bidders who want to claim resident bidder status should complete the Affidavit for Claiming Resident Bidder Status along with their bid in the electronic bidding software. Submittal of the Affidavit should be done along the bid in Bid Express.

April 30, 2018

**SPECIAL NOTES
DISTRICT NO. 6
GRANT COUNTY
BRIDGE REPLACEMENT
CID 242952
BRIDGE NUMBER 041B00019N**

FE02 041 1942 B00019N 01.76

Grant County ~ KY 1942 (Elliston-Mt. Zion Road) over Napoleon Branch

Geographic Coordinates

Latitude 38° 44' 05.00" (38.7346)

Longitude -84° 44' 59.00" (-84.7498)

**SPECIAL NOTES FOR BRIDGE REPLACEMENT
041B00019N**

SPECIAL NOTE FOR DO NOT DISTURB CEMETARY BUFFER AREA

SPECIAL NOTE FOR PLACING BRIDGE OVERLAY APPROACH PAVEMENT

SPECIAL NOTE FOR EROSION CONTROL

SPECIAL NOTE FOR CONCRETE SEALING

SPECIAL NOTE FOR CONTRACT COMPLETION DATE AND PENALTIES ON
BRIDGE REPAIR CONTRACTS

SPECIAL NOTE FOR BRIDGE PLANS

SPECIAL NOTE FOR DO NOT DISTURB CEMETERY BUFFER AREA

The Cemetery Mound Extent area must be surrounded with a Do-Not-Disturb buffer and avoided by impacts associated with the planned bridge replacement. If the Contractor deems it necessary to use any areas outside the Area of Potential Effect (APE) for any purposes (laydown yards, vehicle parking, parking cranes, delivering beams, borrow areas, waste areas, staging areas, etc....), the Contractor must first seek approval for use of the area, whether within or outside the ROW, for Archaeological, Historical, or other Environmental clearances.

If any potentially significant sites or resources are found, the KYTC has the right to deny use of the proposed area. In the unlikely event that significant Archaeological deposits or materials are encountered during the proposed undertakings, the KHC Site Protection Program Manager, Nicole Konkol (Nicole.konkol@ky.gov); the KYTC District 6 Archaeologist, Carl Shields; and the KYTC District 6 Environmental Coordinator, Sharon James; should be immediately informed at (502) 319-4931, (502) 782-5032, or (859) 341-2700, respectively. Furthermore, if human skeletal material is discovered, Construction activities should cease and the KYTC, the local coroner, and local law enforcement agency must be notified, as described in KRS 72.020.

SPECIAL NOTE FOR PLACING BRIDGE OVERLAY APPROACH PAVEMENT

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's current Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the Contract Documents. Section references are to the Standard Specifications.

This work consists of the following:

1. Furnish all labor, materials, tools, and equipment.
2. Removal of existing abutment backfill, if needed.
3. Structural Granular Backfill, as needed.
4. Mill the existing pavement.
5. Place new DGA, asphalt base, and asphalt surface
6. Repair the roadway shoulders, if needed.
7. Provide Pavement Markings if needed.
8. Any other work specified as part of this contract.

II. MATERIALS

- A. Structural Granular Backfill.** See Section 8.05.11
- B. DGA.** See Section 302.
- C. Tack Coat.** This material shall be in accordance with the Standard Specifications.
- D. CL2 ASPH BASE 1.0D PG 64-22.** See Standard Specifications
- E. ASPHALT LEVEL AND WEDGE.** See Standard Specifications
- F. CL2 ASPH SURF 0.38D PG 64-22.** This material shall be in accordance with the Standard Specifications.
- G. GRANULAR EMBANKMENT.** This material shall be in accordance with the Standard Specifications.
- H. Pavement Striping.** See Section 713.

III. CONSTRUCTION

- A. Foundation Preparation.** For projects involving the removal and replacement of the asphalt and backfill behind the new abutments or end bents, the required excavation, Type IV geotextile fabric, 4" perforated pipe, and new backfill shall be constructed as shown in Figure 1 as well as any excavation and grading needed to shape the bridge approaches to match the existing roadway template. See Special Provision 69 and the Standard Drawings regarding additional construction details as required.

Backfill material used behind newly constructed abutments on county routes may be constructed with Type III soil backfill. All existing abutments, abutments on state routes, and newly constructed or existing bents must be backfilled with material meeting Structural Granular Backfill specifications.

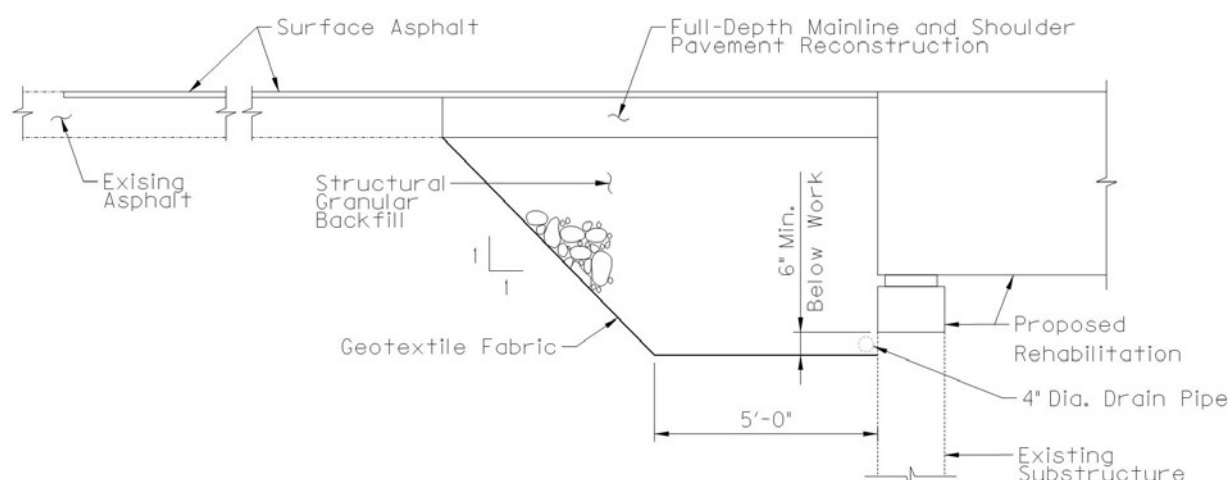


Figure 1: Detail showing proposed work for deck and superstructure replacements

- B. Remove Existing Asphalt Surface.** Remove the existing pavement material beyond the limits of full depth asphalt replacement to provide for a minimum of 1¼" new pavement surface from the bridge end extending approximately 25 feet, or as shown in the plans, into the approach pavement and across the width of the approach pavement. The Engineer shall determine the actual length and width of the milling depending on site conditions at each bridge approach. Mill the existing surface so that the new asphalt surface will match the elevation of the end of the full depth asphalt replacement and the bridge end. The Engineer shall approve the Contractor's plan for restoring the approach grade prior to the removal of the existing surface. Dispose of all removed material entirely away from the job site or as directed by the Engineer.
- C. Produce and Place New Asphalt Base.** Replace any full depth mainline and shoulder pavement removed as part of bridge backwall construction, superstructure replacement, or other work (if included in the Contract Documents) with a minimum of 8 inches of DGA, placed in two lifts of 4 inches each compacted and 8 inches of CL2 ASPH BASE 1.0D PG 64-22, placed in two lifts of 4 inches each compacted. Final elevation of the Asphalt Base at the approaches to match the width and new elevation of the riding surface on the bridge less the New Asphalt Surface to be placed. Shoulders shall receive identical treatment to the mainline pavement.
- D. Produce and Place New Asphalt Surface.** Apply an asphalt tack coat in accordance with Section 406. Produce and place the new 1 ¼" Asphalt Surface in accordance with Section 403 and compact under Option B. The new asphalt surface mixture required for this project shall be "CL2 ASPH SURF 0.38D PG 64-22". Place the new asphalt surface to smoothly connect the existing roadway grade at the end of the project, and/or the new abutment backwall.
- E. Granular Embankment for Guardrails.** When necessary to ensure compliance with standards, widen shoulders behind guardrail with granular embankment and cap with

DGA in accordance with plans or as directed by the Engineer. Remove existing topsoil as needed and place embankment in a manner to ensure proper compaction.

- F. Pavement Markings.** Pavement striping will be required to match the existing pavement striping on both approaches and the structure. Pavement striping shall be in accordance with applicable sections of the Standard Specifications and shall be incidental to the work. Raised pavement markers within the limits of the “Bridge Overlay Approach Pavement” shall be removed prior to the milling operation. The marker castings shall be cleaned and returned to the Engineer.

Special Note for Erosion Control

SPECIAL NOTE FOR EROSION CONTROL

The Contractor shall be responsible for filing the Kentucky Pollution Discharge Elimination System (KPDES) KYR10 permit Notice of Intent (NOI) with the Kentucky Division of Water (DOW) and any KPDES local Municipal Separate Storm Sewer System (MS4) program that has jurisdiction. The NOI shall name the contractor as the Facility Operator and include the KYTC Contract ID Number (CID) for reference.

The Contractor shall perform all temporary erosion/sediment control functions including: providing a Best Management Practice (BMP) Plan, conducting required inspections, modifying the BMP plan documents as construction progresses and documenting the installation and maintenance of BMPs in conformance with the KPDES KYR10 permit effective on December 1, 2014 or a permit re-issued to replace that KYR10 permit. This work shall be conducted in conformance with the requirements of Section 213 of KYTC 2019 Department of Highways, Standard Specifications for Road and Bridge Construction.

Contrary to Section 213.03.03, paragraph 2, the Engineer shall conduct inspections as needed to verify compliance with Section 213 of KYTC 2019 Department of Highways, Standard Specifications for Road and Bridge Construction. The Engineer's inspections shall be performed a minimum of once per month and within seven days after a storm of ½ inch or greater. Copies of the Engineer's inspections shall not be provided to the contractor unless improvements to the BMP's are required. The contractor shall initiate corrective action within 24 hours of any reported deficiency and complete the work within 5 days. The Engineer shall use Form TC 63-61 A for this report. Inspections performed by the Engineer do not relieve the Contractor of any responsibility for compliance with the KPDES permit.

Contrary to Section 213.05, bid items for temporary BMPs will not be listed and all work will instead be included in the lump sum contract cost. The schedule of values for the project should may utilize a lump sum item for "Temporary Erosion Control" to address all items included in section 213 of the Standard Specifications.

The contractor shall be responsible for applying "good engineering practices" as required by the KPDES permit. The contractor may use any temporary BMPs with the approval of the KYTC Engineer.

The contractor shall provide the Engineer copies of all documents required by the KPDES permit at the time they are prepared.

The contractor shall be responsible for the examination of the soils to be encountered and make his own independent determination of the temporary BMPs that will be required to accomplish effective erosion prevention and sediment control.

The Contractor shall be responsible for filing the KPDES permit Notice of Termination (NOT) with the Kentucky DOW and any local MS4 program that has jurisdiction. The NOT shall be filed after the Engineer agrees that the project is stabilized, or the project has been formally accepted.

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SPECIAL NOTE FOR CONCRETE SEALING

These Notes or designated portions thereof, apply where so indicated on the plans, proposals or bidding instruction.

I. DESCRIPTION. Perform all work in accordance with the Department's Standard Specifications, current edition, and applicable Supplemental Specifications, the attached sketches, and these Notes. Section references are to the Standard Specifications. This work consists of: (1) Furnish all labor, materials, tools, and equipment; (2) Clean the bridge deck; (3) Seal the bridge deck; (4) Maintain & control traffic; and, (5) Any other work specified as part of this contract.

II. MATERIALS.

A. Sealer. Use one of the following:

Product	Supplier
Protectosil BHN	Evonik Industries
Protectosil 300S	Evonik Industries
TK-590-40 Tri-Silane 40%	TK Products
SW-244-100	Chemical Products Industries, Inc.
TK-590-1 MS Tri-Silane	TK Products
MasterProtect H1000	BASF
Aquanil Plus 40	ChemMasters
SIL-ACT ATS-100	Advanced Chemical Technologies
Certivex Penseal BTS 100%	Vexcon
Pentreat 244-40	W.R. Meadows
Aquanil Plus 40A	ChemMasters

B. Coverage Rate: Follow all manufacturers recommendations for coverage rates except the application rate must not exceed the square footage coverage rate per

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gallon of sealer as given in the chart below. If the manufacturer recommends a coverage rate greater than given in the table below, apply sealer at the rate given in the table below for the chosen sealers silane percentage.

% Silane	Coverage rate (ft ² /gallon)
100	300
40	120
20	60

III. CONSTRUCTION.

- A. Curing Compound.** Contrary to Section 609.03.12 of the specifications, curing compound is not to be used on this deck due to potentially causing issues with the concrete sealer. During the deck pour, finishing, and tining operations the Class AA concrete shall be kept continuously moist with the use of a mister until burlap or curing blankets are applied to the surface. At no point should water be pooling or running off the surface or the surface of the concrete be allowed to become dry. After the burlap or curing blankets are installed, cure in accordance with the specifications. Include all costs in the unit price bid for Class AA concrete. Failure to properly cure the concrete in accordance with this note and the specifications may result in weakened or cracked concrete. If the concrete is weakened or cracked due to improper curing, the contractor will be responsible for providing alternates to fix the issues to the Engineer for review and the contractor will be solely responsible for all costs to do so, up to complete replacement. Do not begin any construction to fix these issues without approval of the Engineer.
- B. Contract Time.** Concrete Sealing may need to be installed after contract time has elapsed in a separate mobilization and after the Engineer has declared the project otherwise complete. Liquidated damages shall not be charged provided Concrete Sealing is complete within 60 days after the last concrete pour on the structure. When the Contractor has not completed Concrete Sealing within the time frame allotted, Liquidated Damages shall be charged at 25 percent of the original contract daily charge from the expiration of the time allowed until the Contractor completes the work except the Department will not deduct liquated damages when weather limitations prohibit the Contractor from performing the work.
- C. Cleaning the Deck.** Dry clean the deck to remove all loose debris. Remove all visible hydrocarbons from the surface with detergent approved by the manufacturer of the deck sealant. Pressure wash all surfaces to be sealed at 2000 to 3000 psi. Install pressure gauges at each wand to verify pressure. Use 30° fan tip or as recommended by the manufacturer of the deck sealant. Hold pressure washing wand a minimum of 45° from the deck with a maximum stand-off distance of 12 inches.

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- D. Sealing the Deck.** Allow new concrete to cure a minimum 28 days prior to application of sealer. Monitor weather conditions prior to sealer application. Refer to manufacturer's recommendations for proper ambient conditions. Do not apply sealer if precipitation is anticipated within the time stated by the manufacturer. Allow the deck to dry 24 hours (after washing or rain event) before sealer application. The deck can be reopened to traffic while drying. Sealer must be applied within 48 hours of washing or the deck must be rewashed. Divide the deck into predefined areas of specific square footage to aid in determining usage. Comply with manufacturer's usage recommendation. Using a low pressure pump, apply sealer and spread evenly with broom or squeegee; do not allow pooling to remain. When each predefined area is complete, measure the amount of sealer used to verify proper usage. After sealing, follow manufacturer's recommended cure time before opening to traffic. On vertical surfaces, apply the sealer in a flooding application from the bottom up, so the material runs down 6 to 8 inches below the spray pattern.
- E. Inspection:** Monitor all aspects of the project to assure compliance to this specification. Observe and document general conditions during the entirety of the project. Verify that each phase of work has been satisfactorily completed prior to beginning the next phase. Phases are described as follows:
1. Dry cleaning to remove loose debris, verify and document:
 - a. All debris has been removed and disposed of properly.
 2. Removal of hydrocarbons, verify and document:
 - a. The manufacturer's recommended detergent is used for removal.
 - b. Hydrocarbons have been satisfactorily removed.
 3. Pressure washing, verify and document:
 - a. Washing pressure at the wand.
 - b. Tip size used.
 - c. Wash angle and stand-off distance.
 - d. The deck is satisfactorily cleaned.
 4. Sealer application, verify and document:
 - a. Proper cure time for new concrete.
 - b. Deck surface is dry.
 1. Document time since washed.
 2. Was deck opened to traffic after washing?
 - c. Ambient conditions.
 1. Document ambient temperature, surface temperature, relative humidity, and dew point.
 - d. Application and distribution method.
 - e. Coverage to be complete and even.
 - f. Material is not allowed to remain pooled.
 - g. Monitor material usage.
 - h. No traffic until proper cure time is allowed.
 - i.

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IV. MEASUREMENT

- A. **Concrete Sealing.** The Department will measure the quantity per square feet of each area sealed.
- B. **Mobilization For Concrete Surf Treatment.** The Department will pay the lump sum bid for an additional mobilization when Concrete Sealing must be performed after the Engineer has deemed the project complete except for Concrete Sealing and the structure is opened to traffic.

V. PAYMENT

- A. **Concrete Sealing.** Payment at the contract unit price per square feet is full compensation for the following: (1) Furnish all labor, materials, tools, and equipment; (2) Clean the bridge deck; (3) Seal the bridge deck; (4) Maintain & control traffic; and, (5) Any other work specified as part of this contract.
- B. **Mobilization For Concrete Surf Treatment.** Payment at the contract lump sum price bid shall be full compensation for the Contractor to remobilize on the project to perform Concrete Sealing as detailed herein this special note.

**SPECIAL NOTE FOR CONTRACT COMPLETION DATE AND
PENALTIES ON BRIDGE REPAIR CONTRACTS**

- 1. COMPLETION DATE.** The Contractor has the option of selecting the starting date for this Contract. Once selected, notify the Department in writing of the date selected at least two weeks prior to beginning work. All work is to be completed by the date listed below. An allotted number of Calendar days are assigned to each structure in this contract as shown below.

<u>STRUCTURE</u>	<u>NO. OF CALENDAR DAYS</u>	<u>COMPLETION DATE</u>
041B00019N	75	July 31, 2025

Contrary to Section 108.07.03, the Engineer will begin charging calendar days for a structure on the day the Contractor starts work or sets up traffic control on that particular structure. A **penalty of \$500.00 per day** will be assessed when the allotted number of calendar days is exceeded for each structure.

All construction must be completed in accordance with the weather limitations specified in Section 606 and/or Section 601 as applicable. No extension of Contract time will be granted due to inclement weather or temperature limitations that occur due to starting work on the Contract or a structure late in the construction season.

SPECIAL NOTE FOR BRIDGE PLANS

See Project Related Information for Bridge Plans.
Drawing Number 28698 with Roadway Plans.

Special Note for Bridge Demolition, Renovation and Asbestos Abatement

If the project includes any bridge demolition or renovation, the successful bidder is required to notify Kentucky Division for Air Quality (KDAQ) via filing of form (DEP 7036) a minimum of 10 working days prior to commencement of any bridge demolition or renovation work.

Any available information regarding possible asbestos containing materials (ACM) on or within bridges to be affected by the project has been included in the bid documents. These are to be included with the Contractor's notification filed with the KDAQ. If not included in the bid documents, the Department will provide that information to the successful bidder for inclusion in the KDAQ notice as soon as possible. If there are no documents stating otherwise, the bidders should assume there are no asbestos containing materials that will in any way affect the work.

APPENDIX C

Hazardous Materials



Linebach ■ Funkhouser, Inc.
ENVIRONMENTAL COMPLIANCE & CONSULTING

Asbestos Inspection Report

To: Randall Thomas, HMB Professional Engineers, Inc.

Date: September 12, 2022

Conducted By: Russell H. Brooks, LFI, Inc.

Project and Structure Identification

Project: Grant County: Item No. 6-40001

Structure ID: #041B00019N

Structure Location: KY 1942 Bridge over Flat Creek, Grant County, Kentucky

Sample Description: Black mastic at expansion joint - Abutment

Inspection Date: September 8, 2022

Results and Recommendations

The asbestos inspection was performed in accordance with current United States Environmental Protection Agency (US EPA) regulations, specifically 40 CFR Part 61, Asbestos National Emissions Standards for Hazardous Air Pollutants (NESHAP) revision, final rule effective November 20, 1990.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition ([DEP7036 Form](#)) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

No asbestos containing materials (ACM) were detected above regulatory screening limits of <1%.

MRS, Inc. Analytical Laboratory Division

(502) 495-1212
Fax: (502) 491-7111

Analysis N #	# 3209103	Address:	Grant County - 6-40001
Client Name:	L F I		
Sampled By:	Russell Brooks		

[illegible]

Date Analyzed : 10-Sep-22

Analyst : Winterford Mensah

Reviewed By:

Wintyars Mendez
Signature

The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S. Government. Partial reproduction of any part of this report is strictly prohibited. Samples shall be retained for (30) days.

AJHA #1 02459


MRS, INC.

MRS, Inc. Analytical Laboratory Division

332 West Broadway / Suite # 902
Louisville, Kentucky - 40202 - 2133

Phone # : (502) 495-1212
E-Mail Address: CEOMRSInc@AOL.Com

Client:	<u>L F I</u>	Project No:	<u># 3209103</u>
Address:	<u>114 Fairfax Avenue</u>	Sample ID:	<u># 1 A</u>
	<u>Louisville, KY</u>	Sampled:	<u>8-Sep-22</u>
	<u>40207</u>	Received:	<u>9-Sep-22</u>
		Analyzed:	<u>10-Sep-22 - Point Count -</u>
	<u>Attention: Russell Brooks</u>		

Bulk Sample Analysis	
Sampled By :	<u>Russell Brooks</u>
Facility/Location:	<u>Grant County - 6 - 40001</u>
Field Description:	<u>Abutment - Mastic</u>
Laboratory Description:	<u>Thick Black Material</u>
Asbestos Materials:	<u>Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative</u>
Non-Asbestos Fibrous Materials :	
	<u>Cellulose 0.25 %</u>
	<u>Binders(Tar) 99.50 %</u>
 Remarks: The sample was analyzed for asbestos content following the EPA Methodology (600/R-93/116). The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S. Government.	
Analyst: <u>Winterford Mensah</u>	Reviewed By: <u> Signature</u>


MRS, INC.

MRS, Inc. Analytical Laboratory Division

332 West Broadway / Suite # 902
Louisville, Kentucky - 40202 - 2133

Phone # : (502) 495-1212
E-Mail Address: CEOMRSInc@AOL.Com

Client:	<u>L F I</u>	Project No:	<u># 3209103</u>
Address:	<u>114 Fairfax Avenue</u>	Sample ID:	<u># 1 B</u>
	<u>Louisville, KY</u>	Sampled:	<u>8-Sep-22</u>
	<u>40207</u>	Received:	<u>9-Sep-22</u>
		Analyzed:	<u>10-Sep-22 - Point Count -</u>
	<u>Attention: Russell Brooks</u>		

Bulk Sample Analysis	
Sampled By :	<u>Russell Brooks</u>
Facility/Location:	<u>Grant County - 6 - 40001</u>
Field Description:	<u>Abutment - Mastic</u>
Laboratory Description:	<u>Thick Black Material</u>
Asbestos Materials:	<u>Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative</u>
Non-Asbestos Fibrous Materials :	
	<u>Cellulose 0.25 %</u>
	<u>Binders(Tar) 99.50 %</u>
 Remarks: The sample was analyzed for asbestos content following the EPA Methodology (600/R-93/116). The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S. Government.	
Analyst: <u>Winterford Mensah</u>	Reviewed By: <u> Signature</u>

MRS, Inc.
P.O. Box 19424
Louisville, Kentucky 40259-0424

Phon (502) 495 - 1212
Fax (502) 491 - 7111

Client : Linebach Funkhouser, Inc.
Project : LFI Project 262-22

CHAIN OF CUSTODY RECORD

PROJECT: GRANT 6-40001
LOCATION: 9/8/22
SAMPLED BY: R. Brooks
DATE: _____

COMMENTS AND/OR INSTRUCTIONS:
Point count <4%
Stop first positive

SAMPLE NUMBER	LOCATION	MATRIX	COLOR	SIZE	COMMENTS	T/L W/C	PLM
1 A/B	Abutment - mastie						x
2 A/B							x
3 A/B							x
4 A/B							x
5 A/B							x
6 A/B							x
7 A/B							x
8 A/B							x
9 A/B							x
10 A/B							x
11 A/B							x

Relinquished By: (Signature) <u>Russell H. Brooks</u>	Date <u>9/9/21</u>	Time	Received By: (Signature) <u>Theresa Thompson</u>
Relinquished By: (Signature)	Date	Time	Received By: (Signature)

Commonwealth of Kentucky

Department for Environmental Protection
Division for Air Quality

Russell Henry Brooks

Has met the requirements of 401 KAR 58:005 and is accredited as an:

Asbestos Inspector

Agency Interest Id:

138451

License Number:

71841

Issue Date:

03/24/2022

Expiration Date:

03/15/2023

**NOTIFICATION OF ASBESTOS
ABATEMENT/DEMOLITION/RENOVATION**
(Instructions for completing form on back)

File this form with Regional Office where project will be performed

Kentucky Division for Air Quality
300 Sower Boulevard, 2nd Floor
Frankfort, KY 40601

PAGE 1 OF
INITIAL SUBMITTAL DATE
REVISION DATE
NOTIFICATION #

OFFICE USE ONLY
ID #
LOG #

Contractor _____
Address _____
City _____ State _____ Zip _____
Phone _____ Contact Person _____
Owner _____
Address _____
City _____ State _____ Zip _____
Phone _____ Contact Person _____
Project Location _____
Address _____
City _____ State _____ Zip _____
Facility Age (yrs.) _____ Size of Facility or Affected Part (sq.ft.) _____
#Floors Affected _____ Present and Prior Use of Facility _____
TYPE OF PROJECT (CHECK ONLY ONE):
Renovation ☐ Demolition ☐ Ordered Demolition ☐ Emergency ☐ Long-term ☐

PROJECT DATES:
Start Removal _____ End Removal _____
Start Renovation/Demolition _____ End Renovation/Demolition _____

Amount of ACM to be Removed:

	Regulated ACM (FACM)	Category II nonfriable ACM (optional)	Category I nonfriable ACM (optional)
Linear Feet			
Square Feet			
Cubic Feet			

Description of planned renovation/demolition, including abatement methods
& demo/reno methods. _____

Description of affected facility components _____

Asbestos detection technique _____
Amount of Cat. I & II nonfriable ACM involved but will not be removed: _____

Describe **physical characteristics** that make it nonfriable and **methods**
to keep it nonfriable (optional): _____

Describe **contingency plan** should nonfriable ACM become friable or
additional ACM be uncovered during renovation/ demolition: _____

Transporter _____
Address _____
City _____ State _____ Zip _____
Phone _____
Disposal Site _____
Address _____
City _____ State _____ Zip _____
I hereby certify that at least one person trained as required by 40 CFR
61.145(c)(8) will supervise the abatement work described herein. (optional
for strictly non-friable work)
Submitted by: _____
Company Name: _____

INSTRUCTIONS FOR COMPLETING FORM DEP7036: NOTIFICATION OF ASBESTOS ABATEMENT/DEMOLITION/RENOVATION

Filing Deadline: This form must be completed and filed with the Kentucky Division for Air Quality at least ten (10) working days before starting any asbestos removal, demolition, or other work which will disturb asbestos-containing material (ACM) in Kentucky facilities outside Jefferson County and in schools statewide, including Jefferson County. File with appropriate Regional Office.

Renotification: If developments occur that invalidate information on a notification (e.g., changes in dates, amounts, locations), file a revised form within the time frames specified in 401 KAR 58:025. Notifications may be numbered in the top-left corner (optional). First two digits are project year; remaining digits are project number (e.g., the first project in 1999 is 99-1).

Attachments: Attachments may be included to provide additional information, propose alternative procedures, declare nonfriable removal, identify secondary transporters, etc.

Line-by-Line Instructions:

Contractor/Owner: the asbestos remover (or, for zero-asbestos demolitions, the demolition contractor). The owner is the entity having the work done.

Project Location: The location at the address given where the work is taking place (e.g., which building/floor/room?).

Present/Prior Use: Enter the present and prior use(s) of the facility.

Type of Project: Each choice shown in this category has a specific description under 401 KAR 58:025:
Emergency renovations result from a sudden, unexpected event. If the project is an emergency renovation, attach a detailed description of the sudden, unexpected event that necessitated removal. Include the exact date and hour the event occurred and explain how the event caused an unsafe condition, or would cause equipment damage or unreasonable financial burden.
Planned renovations are renovations that do not qualify as emergency renovations.
A long-term notification is a type of planned renovation which involves a number of nonscheduled small-scale removals whose annual total exceeds the NESHAP threshold amounts and can be estimated based on past years' experience. File yearly estimate at least 10 working days before the beginning of the calendar year for which a long-term notification is being given.
Demolitions involve the wrecking or taking out of a load-supporting structural member, such as a load-bearing beam or wall. Tearing down a structure, dismantling it piecemeal, and moving it from one place to another are all considered demolitions.
Ordered demolitions must result from a demolition order issued by a government agency because the building is structurally unsound and in danger of imminent collapse. For ordered demolitions, attach to the notification a signed, dated copy of order that includes demolition deadlines and name/title/authority of the government representative issuing the order.

Project Dates: Schedules must be precise and accurate. The "start removal" date is the date the removers arrive on-site and begin physically preparing the work area for removal. "End removal" is the date the removers dismantle the work area after cleaning and clearing it. If circumstances arise that invalidate previously submitted start dates, a revised notification must be submitted showing the updated, correct start date. If the start date has been moved up, submit written renotification at least ten working days before the new start date. If the start date has been moved back, telephone the Division as soon as possible before the original date and submit written renotification no later than the original start date.
Schedules for renovation and demolition (next line after removal schedule) are handled similarly, except that renotification is required only for schedule changes involving demolitions, not renovations.

Amount of ACM: In this table, enter the amount and type (RACM, Category I, and/or Category II) of asbestos that will be removed. Although the regulation does not require you to identify the amount of nonfriable ACM that will be removed, the table provides space for nonfriable ACM to accommodate those notifiers who choose to document these removals.

Description of project: Describe the demolition or renovation work to be performed and method(s) to be used, including work practices and engineering controls to be used.

Asbestos Detection Technique: Give a general description of the asbestos survey, for example, "AHERA-style survey by accredited inspector; samples analyzed by PLM."

Amount of nonfriable ...: If all nonfriable ACM will be properly removed, enter "NA."

Contingency Plans: If Category II nonfriable ACM becomes crumbled, pulverized, or reduced to powder, or if additional RACM is discovered, describe procedures to be followed. For example, "Move demolition activity away from ACM immediately; remove the ACM using regulation-required procedures." Even "Stop work, call Division for Air Quality" is OK.



KENTUCKY TRANSPORTATION CABINET
Department of Highways
DIVISION OF RIGHT OF WAY & UTILITIES

TC 62-226
Rev. 01/2016
Page 1 of 1

RIGHT OF WAY CERTIFICATION

<input checked="" type="checkbox"/>	Original	<input type="checkbox"/>	Re-Certification	RIGHT OF WAY CERTIFICATION	
ITEM #		COUNTY	PROJECT # (STATE)		PROJECT # (FEDERAL)
6-40001		Grant	041B00019N		
PROJECT DESCRIPTION					
Elliston-Mt. Zion Road, KY 1942, bridge over Napoleon Branch, latitude 38.734590 longitude -84.749800h					
<input checked="" type="checkbox"/>	No Additional Right of Way Required				
Construction will be within the limits of the existing right of way. The right of way was acquired in accordance to FHWA regulations under the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. No additional right of way or relocation assistance were required for this project.					
<input type="checkbox"/>	Condition # 1 (Additional Right of Way Required and Cleared)				
All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.					
<input type="checkbox"/>	Condition # 2 (Additional Right of Way Required with Exception)				
The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract					
<input type="checkbox"/>	Condition # 3 (Additional Right of Way Required with Exception)				
The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. All remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary right of way will not be fully acquired, and/or some occupants will not be relocated, and/or the just compensation will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction.					
Total Number of Parcels on Project		EXCEPTION (S) Parcel #		ANTICIPATED DATE OF POSSESSION WITH EXPLANATION	
Number of Parcels That Have Been Acquired					
Signed Deed					
Condemnation					
Signed ROE					
Notes/ Comments (Text is limited. Use additional sheet if necessary.)					
LPA RW Project Manager			Right of Way Supervisor		
Printed Name		Printed Name		Lynn Whalen	
Signature		Signature		Date: 2023.03.08	
Date		Date		14:16:50 -05'00'	
Right of Way Director			FHWA		
Printed Name		Printed Name			
Signature		Signature			
Date		Date			

Digitally signed by Kelly Divine
Date: 2023.03.08 15:05:29 -06'00'

UTILITIES AND RAIL CERTIFICATION NOTE

**Grant County
BRDGMAIN
Mile point: 1.760 TO 1.761
Bridge Replacement on KY-1942 over Napoleon Branch (041B00019N).
ITEM NUMBER: 06-40001.00**

PROJECT NOTES ON UTILITIES

The contractor should be aware that there is UTILITY WORK INCLUDED IN THIS ROAD CONSTRUCTION CONTRACT. The Contractor shall review the GENERAL UTILITY NOTES AND INSTRUCTIONS which may include KYTC Utility Bid Item Descriptions, utility owner supplied specifications, plans, list of utility owner preapproved subcontractors, and other instructions. Utility contractors may be added via addendum if KYTC is instructed to do so by the utility owner. Potential contractors must seek prequalification from the utility owner. Any revisions must be sent from the utility owner to KYTC a minimum of one week prior to bid opening.

For all projects under 2000 Linear feet which require a normal excavation locate request pursuant to KRS 367.4901-4917, the awarded contractor shall field mark the proposed excavation or construction boundaries of the project (also called white lining) using the procedure set forth in KRS 367.4909(9)(k). For all projects over 2000 linear feet, which are defined as a "Large Project" in KRS 367.4903(18), the awarded contractor shall initially mark the first 2000 linear feet minimally of proposed excavation or construction boundaries of the project to be worked using the procedure set forth in KRS 367.4909(9)(k). This temporary field locating of the project excavation boundary shall take place prior to submitting an excavation location request to the underground utility protection Kentucky Contact Center. For large projects, the awarded contractor shall work with the impacted utilities to determine when additional white lining of the remainder of the project site will take place. This provision shall not alter or relieve the awarded contractor from complying with requirements of KRS 367.4905 to 367.4917 in their entirety.

Please Note: The information presented in this Utility Note is informational in nature and the information contained herein is not guaranteed.

The contractor will be responsible for contacting all utility facility owners on the subject project to coordinate his activities. The contractor will coordinate his activities to minimize and, where possible, avoid conflicts with utility facilities. Due to the nature of the work proposed, it is unlikely to conflict with the existing utilities beyond minor facility adjustments. Where conflicts with utility facilities are unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. The Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs. The utility facilities as noted in the previous section(s) have been determined using data garnered by varied means and with varying degrees of accuracy: from the facility owners, a result of S.U.E., field inspections, and/or reviews of record drawings. The facilities

UTILITIES AND RAIL CERTIFICATION NOTE

Grant County
BRDGMAIN
Mile point: 1.760 TO 1.761
Bridge Replacement on KY-1942 over Napoleon Branch (041B00019N).
ITEM NUMBER: 06-40001.00

defined may not be inclusive of all utilities in the project scope and are not Level A quality, unless specified as such. It is the contractor’s responsibility to verify all utilities and their respective locations before excavating.

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor’s responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. The contractor is instructed to contact KY 811 for the location of existing underground utilities. Contact shall be made a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY 811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom are to be contacted through their individual Protection Notification Center. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area. Non-compliance with these directives can result in the enforcement of penalties.

NOTE: DO NOT DISTURB THE FOLLOWING FACILITIES LOCATED WITHIN THE PROJECT DISTURB LIMITS

Bullock Pen Water facilities are to be protected until relocated by the road contractor.

The Contractor is fully responsible for protection of all utilities listed above

THE FOLLOWING FACILITY OWNERS ARE RELOCATING/ADJUSTING THEIR FACILITIES WITHIN THE PROJECT LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION

Not Applicable

THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE OWNER OR THEIR SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT

Not Applicable

UTILITIES AND RAIL CERTIFICATION NOTE

Grant County
BRDGMAIN
Mile point: 1.760 TO 1.761
Bridge Replacement on KY-1942 over Napoleon Branch (041B00019N).
ITEM NUMBER: 06-40001.00

THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE ROAD CONTRACTOR AS INCLUDED IN THIS CONTRACT

Bullock Pen Water facilities are to be relocated by the road contractor using plans inserted into the roadway plans and specs included in the proposal.

RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

☒ No Rail Involvement ☐ Rail Involved ☐ Rail Adjacent

AREA FACILITY OWNER CONTACT LIST

Facility Owner	Address	Contact Name	Phone	Email
Bullock Pen Water District	PO Box 188 Crittenden KY 41030	Paul Harp	(859) 428-2112	pharp@bpwd.org

Standard Water Bid Item Descriptions

THESE BID ITEM DESCRIPTIONS SHALL SUPERCEDE ANY BID ITEM DESCRIPTIONS CONTAINED IN UTILITY OWNER SUPPLIED SPECIFICATIONS PROVIDED ELSEWHERE IN THIS PROPOSAL.

W AIR RELEASE VALVE This bid item description shall apply to all air release valve installations of every size except those defined as “Special”. This item shall include the air release valve, main to valve connecting line or piping, manhole, vault, structure, access casting or doors, tapping the main, labor, equipment, excavation, proper backfill, and restoration required to install the air release valve at the location shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready-for-use. Please refer to the Utility Company’s Specifications. If the Company does not have specifications, KYTC’s Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

BOLLARDS This item is for payment for furnishing and installing protective guard posts at above-ground utility installations. A bollard may consist of, but is not limited to, a steel post set in concrete or any other substantial post material. This item shall include all labor, equipment, and materials needed for complete installation of the bollard, as specified by the utility owner specifications and plans. If the Company does not have specifications, KYTC’s Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

NOTE: A bid code for this item has been established in standard roadway bid items and shall be used for payment of this item. The bid code is 2134IND.

W CAP EXISTING MAIN This item shall include the specified cap, concrete blocking and/or mechanical anchoring, labor, equipment, excavation, backfill, and restoration required to install the cap on an existing main to be left in service at the location shown on the plans or as directed, in accordance with the specifications. This item is not to be paid to cap new main installations or mains that are to be abandoned. This pay item is only to be paid to cap existing mains to be left in service. Caps on new mains are to be considered incidental to the new main, as are other fittings, and are not to be paid under this item. All caps on existing mains shall be paid under this one bid item included in the contract, regardless of size. No separate bid items will be established for size variations. Please refer to the Utility Company’s Specifications. If the Company does not have specifications, KYTC’s Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

Plugging of existing abandoned mains shall be performed and paid in accordance with Section 708.03.05 of KYTC Standard Specifications for Road and Bridge Construction, using Bid code 01314, Plug Pipe.

W CATHODIC PROTECTION This item is for providing and installing all cathodic protection materials to iron pipe and fittings, as specified in plans and specifications, complete and ready-for-use. Materials to be supplied and installed by the contractor shall include, but are not limited to, anodes, wire, fusion kits, test stations, and/or marker posts. All cathodic protection required for the entire project shall be paid under this one item. Please refer to the Utility Company’s Specifications. If the Company does not have specifications, KYTC’s Specifications shall be referenced. This item shall be paid LUMP SUM (LS) when complete.

W DIRECTIONAL BORE Payment under this item is made whenever the plans or specifications specifically show directional boring is to be utilized to minimize the impact of open-cut for the installation of water main under streets, creeks, etc. Payment under this item shall include the specified bore pipe, labor, and equipment. No separate payment shall be made for bore pipe installed in the bore, whether used as a carrier pipe or an encasement of a separate carrier pipe. This item shall also include pipe anchors at

each end of the bore, when specified, to prevent the creep or contraction of the bore pipe. Carrier pipe installed within a bore pipe shall be paid separately under pipe items. Payment under this item shall not be size specific and no separate bid items will be established for size variations. The bore pipe sizes to be included under this item shall be as shown on the plans and/or in the specifications. Any and all directional bores in each contract shall be paid under one directional bore bid item included in the contract, regardless of size. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF) when complete.

W ENCASEMENT CONCRETE This item shall include all labor, equipment, excavation, concrete, reinforcing steel, backfill, restoration, etc., to construct the concrete encasement of the water main as shown on the plans, and in accordance with the specifications and standard drawings. Payment under this item shall be in addition to the carrier pipe, as paid under separate bid items. Carrier pipe is not included in this bid item. Any and all concrete encasements shall be paid under one bid item included in the contract, regardless of the size of the carrier pipe or the volume of concrete or steel reinforcement, as specified in the plans and specifications. No separate bid items will be established for size variations. Measurement of pay quantity shall be from end of concrete to end of concrete. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF) when complete.

W ENCASEMENT STEEL BORED This item shall include the steel encasement pipe size as specified on the plans and in the specifications, casing spacers, end seals, labor, and equipment to bore and install the encasement in accordance with the plans and specifications, complete and ready-for-use. The size shall be the measured internal diameter of the encasement pipe. The sizes of encasement to be paid under the size ranges specified in the bid items shall be as follows:

- Range 1 = All encasement sizes greater than 2 inches to and including 6 inches
- Range 2 = All encasement sizes greater than 6 inches to and including 10 inches
- Range 3 = All encasement sizes greater than 10 inches to and including 14 inches
- Range 4 = All encasement sizes greater than 14 inches to and including 18 inches
- Range 5 = All encasement sizes greater than 18 inches to and including 24 inches
- Range 6 = All encasement sizes greater than 24 inches

(Encasement sizes of 2 inches internal diameter or less shall not be paid separately but shall be considered incidental to the carrier pipe.) Payment under this bid item shall not include the carrier pipe. Carrier pipe shall be paid under a separate bid item. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF) when complete.

W ENCASEMENT STEEL OPEN CUT This item shall include the steel encasement pipe size as specified on the plans and in the specifications, casing spacers, end seals, labor, and equipment to open-cut and install the encasement in accordance with the plans and specifications, complete and ready-for-use. The size shall be the measured internal diameter of the encasement pipe. The size encasement to be paid under the size ranges specified in the bid items shall be as follows:

- Range 1 = All encasement sizes greater than 2 inches to and including 6 inches
- Range 2 = All encasement sizes greater than 6 inches to and including 10 inches
- Range 3 = All encasement sizes greater than 10 inches to and including 14 inches
- Range 4 = All encasement sizes greater than 14 inches to and including 18 inches
- Range 5 = All encasement sizes greater than 18 inches to and including 24 inches
- Range 6 = All encasement sizes greater than 24 inches

(Encasement sizes of 2 inches internal diameter or less shall not be paid separately but shall be considered incidental to the carrier pipe.) Payment under this bid item shall not include the carrier pipe. Carrier pipe shall be paid under a separate bid item. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF) when complete.

W FIRE HYDRANT ADJUST This item includes all labor, equipment, excavation, materials, and backfill to adjust the existing fire hydrant using the fire hydrant manufacturer's extension kit for adjustments of 18" or less. Adjustments greater than 18" require anchoring couplings and vertical bends to adjust to grade. The Contractor will supply and install all anchor couplings, bends, fire hydrant extension, concrete blocking, restoration, granular drainage material, etc., needed to adjust the fire hydrant, complete and ready-for-use as shown on the plans, and in accordance with the specifications and standard drawings. This also includes allowing for the utility owner inspector to inspect the existing fire hydrant prior to adjusting, contractor returning unusable fire hydrants to the utility owner warehouse and picking up a replacement hydrant. No additional payment will be made for rock excavation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete and ready for use.

W FIRE HYDRANT ASSEMBLY This item includes all labor, equipment, new fire hydrant, isolating valve and valve box, concrete pad around valve box (when specified in specifications or plans), piping, anchoring tee, anchoring couplings, fire hydrant extension, excavation, concrete blocking, granular drainage material, backfill, and restoration, to install a new fire hydrant assembly as indicated on plans and standard drawings, complete and ready-for-use. No additional payment will be made for rock excavation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W FIRE HYDRANT RELOCATE This item includes all labor and equipment to remove the existing fire hydrant from its existing location and to reinstall at a new location. This item shall include a new isolating valve and valve box, concrete pad around valve box (when required in specifications or plans), new piping, new anchoring tee, anchoring couplings, fire hydrant extensions, concrete blocking, restoration, granular drainage material, excavation, and backfill as indicated on plans, specifications, and standard drawings, complete and ready-for-use. This item shall also include allowing for utility owner inspector to inspect the existing fire hydrant prior to reuse, contractor returning unusable fire hydrants to the utility owner warehouse and picking up a replacement hydrant for use if the existing fire hydrant is determined unfit for reuse. No additional payment will be made for rock excavation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W FIRE HYDRANT REMOVE This item includes removal of an abandoned fire hydrant, isolating valve, and valve box, to the satisfaction of the engineer. The removed fire hydrant, isolating valve, and valve box shall become the property of the contractor for his disposal as salvage or scrap. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W FLUSH HYDRANT ASSEMBLY This item shall include the flushing hydrant assembly, service line, tapping the main, labor, equipment, excavation, backfill, and restoration required to install the flush hydrant at the location shown on the plans and in accordance with the specifications and standard drawings, complete and ready-for-use. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W FLUSHING ASSEMBLY This item shall include the flushing device assembly, service line, meter box and lid, tapping the main, labor, equipment, excavation, backfill, and restoration required to install the flushing device at the location shown on the plans and in accordance with the specifications and standard drawings, complete and ready-for-use. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W LEAK DETECTION METER This item is for payment for installation of a water meter at main valve locations, as shown on the plans, for detection of water main leaks. The meter shall be of the size and type specified in the plans or specifications. This item shall include all labor, equipment, meter, meter box or vault, connecting pipes between main and meter, main taps, tapping saddles, casting, yoke, and any other associated material needed for installation of a functioning water meter in accordance with the plans and specifications, complete and ready-for-use. No separate payment will be made under any other contract item for connecting pipe or main taps. All leak detection meters shall be paid under one bid item included in the contract, regardless of size. No separate bid items will be established for size variations. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete and ready for use.

W LINE MARKER This item is for payment for furnishing and installing a water utility line marker as specified by the utility owner specifications and plans. A line marker may consist of a post or monument of whatever materials specified and shall include markings and/or signage on same as specified by plans or specifications. This item shall include all labor, equipment, and materials needed for complete installation of the marker. This item shall be paid EACH (EA) when complete.

W LINE STOP SIZE 1 OR 2 This item shall include the line stop saddle/sleeve, valve, completion plug and any other material, labor, and equipment necessary to complete the line stop as indicated in the plans and/or specifications. This installation shall allow the waterline system to operate as usual without any interruption of service. The size shall be the measured internal diameter of the live pipe to be tapped. The line stop size to be paid under sizes 1 or 2 shall be as follows:

Size 1 = All live tapped main sizes up to and including 8 inches

Size 2 = All live tapped main sizes greater than 8 inches

Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W MAIN POINT RELOCATE This item is intended for payment for horizontal and/or vertical relocation of a short length of an existing main at the location shown on the plans. This bid item is to be used to relocate an existing water main at point locations, such as to clear a conflict at a proposed drainage structure, pipe, or any other similar short relocation situation, and where the existing pipe material is to be reused. The contractor shall provide any additional pipe or fitting material needed to complete the work, as shown on the plans and specifications. The materials provided shall be of the same type and specifications as those that exist. Substitution of alternative materials shall be approved by the engineer in advance on a case-by-case basis. New polyethylene wrap is to be provided (if wrap exists or is specified in the specifications to be used). If it is necessary that the pipe be disassembled for relay, payment under this item shall also include replacement of joint gaskets as needed. Bedding and backfill shall be provided and performed the same as with any other pipe installation as detailed in the plans and specifications. Payment under this item shall be for each location requiring an existing main to be relocated horizontally or vertically, regardless of pipe size or relocation length. No separate pay items will be established for pipe size variations or relocation segment length variations. Water Main Relocate shall not be paid on a linear feet basis but shall be paid EACH (EA) at each location when complete and placed in service. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced.

W METER This item is for payment for installation of all standard water meters of all sizes 2 inches in diameter or less as specified on the plans. This item shall include all labor, equipment, meter, meter box, casting, yoke, and any other associated materials needed for installation of a functioning water meter, in accordance with the plans and specifications, complete and ready-for-use. This item shall include connections to the new or existing water service line. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W METER ADJUST This item includes all labor, equipment, excavation, materials, backfill, restoration, etc., to adjust the meter casting to finished grade (whatever size exists) at the location shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready-for-use. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W METER RELOCATE This item includes all labor, equipment, excavation, additional fittings, disinfection, testing, restoration, etc., to relocate the existing water meter (whatever size exists), meter yoke, meter box, casting, etc., from its old location to the location shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready-for-use. The new service pipe (if required) will be paid under the short side or long side service bid item. Any and all meter relocations of 2 inches or less shall be paid under one bid item included in the contract, regardless of size. Each individual relocation shall be paid individually under this item; however, no separate bid items will be established for meter size variations of 2 inches in diameter or less. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W METER VAULT SIZE RANGE 1 OR 2 This item is for payment for installation of an underground structure for housing of a large water meter, fittings, and valves as required by the plans and specifications. This item shall include all labor, equipment, excavation, concrete, manhole castings or access doors, the specified meter(s) valve(s), all piping, and fitting materials associated with installing a functioning meter and vault in accordance with the plans, standard drawings, and specifications, complete and ready-for-use. The size shall be the measured internal diameter of the meter and piping to be installed. The size meter vault to be paid under size 1 or 2 shall be as follows:

Size Range 1 = All meter and piping sizes greater than 2 inches up to and including 6 inches
Size Range 2 = All meter and piping sizes greater than 6 inches

This item shall be paid EACH (EA) when complete. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced.

W METER/FIRE SERVICE COMBO VAULT This item is for payment for installation of an underground structure for housing of a water meter and fire service piping, fittings, and valves as required by the plans and specifications. This item shall include all labor, equipment, excavation, concrete, manhole castings or access doors, the specified meter(s), valve(s), all piping, and fitting materials associated with installing a functioning meter and fire service vault, in accordance with the plans and specifications, complete and ready-for-use. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W METER WITH PRESSURE REDUCING VALVE (PRV) This item is for payment for installation of all standard water meters with pressure reducing valves (PRV) of all sizes 2 inches in diameter or less,

as specified on the plans. This item shall include all labor, equipment, meter, PRV, meter box, casting, yoke, and any other associated materials needed for installation of a functioning water meter with PRV, in accordance with the plans and specifications, complete and ready-for-use. This item shall include connections to the new or existing water service line. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W PIPE This item shall apply to all pipe of every size and type material to be used as water main, except those bid items defined as "Special". This item includes the pipe specified by the plans and specifications, all fittings (including, but not limited to, bends, tees, reducers, plugs, and caps), tracing wire with test boxes (if required by specifications), polyethylene wrap (when specified), labor, equipment, excavation, bedding, backfill, restoration, testing, sanitizing, etc., required to install the specified new pipe and new fittings at the locations shown on the plans, or as directed, in accordance with the specifications and standard drawings, complete and ready-for-use. No additional payment will be made for rock excavation. This bid item includes material and placement of flowable fill under existing and proposed pavement, and wherever else specified on the plans or in the specifications. This item shall include all temporary and permanent materials, as well as equipment required to pressure test and sanitize mains including, but not limited to, pressurization pumps, hoses, tubing, gauges, main taps, saddles, temporary main end caps or plugs and blocking, main end taps for flushing, chlorine liquids or tablets for sanitizing, water for testing/sanitizing and flushing (when not supplied by the utility), chlorine neutralization equipment and materials, and any other items needed to accomplish pressure testing and sanitizing the main installation. This item shall also include pipe anchors at each end of polyethylene pipe runs, when specified to prevent the creep or contraction of the pipe. When owner specifications require, this bid item shall include contractor preparation of as-built drawings to be provided to the engineer and/or utility owner at the end of construction. Measurement of quantities under this item shall be through fittings, encasements, and directional bores (only when a separate carrier pipe is specified within the directional bore pipe). Measurements shall be further defined to be to the center of tie-in where new pipe contacts existing pipe at the center of connecting fittings, to the outside face of vault or structure walls, or to the point of main termination at dead ends. No separate payment will be made under pipe items when the directional bore pipe is the carrier pipe. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF) when complete.

W PLUG EXISTING MAIN This item shall include the specified plug, concrete blocking and/or mechanical anchoring, labor, equipment, excavation, backfill, and restoration required to install the plug on an existing main to be left in service at the location shown on the plans or as directed, in accordance with the specifications. This item is not to be paid to plug new main installations or mains that are to be abandoned. This pay item is only to be paid to plug existing mains that are to be left in service. Plugs on new mains are to be considered incidental to the new main, as are other fittings, and are not to be paid under this item. All plugs on existing mains left in service shall be paid under this one bid item included in the contract, regardless of size. No separate bid items will be established for size variations. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

Plugging of existing abandoned mains shall be performed and paid in accordance with Section 708.03.05 of KYTC Standard Specifications for Road and Bridge Construction, using Bid code 01314, Plug Pipe.

W PRESSURE REDUCING VALVE This item shall apply to all pressure reducing valves (PRV) of every size required in the plans and specifications, except those bid items defined as "Special". Payment under this description is to be for PRVs being installed with new main. This item includes the PRV as specified in the plans and specifications, polyethylene wrap (if required by specification), labor, equipment, excavation, anchoring (if any), pit or vault, backfill, restoration, testing, disinfection, etc., required to install the specified PRV at the location shown on the plans, in accordance with the specifications and standard

drawings, complete and ready-for-use. If required on the plans and/or proposed adjoining DIP is restrained, PRVs shall be restrained. PRV restraint shall be considered incidental to the PRV and adjoining pipe. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W PUMP STATION This item is for payment for installation of pumps and an above or below ground structure for housing of the pumps. This item shall include all pumps, piping, fittings, valves, electrical components, building materials, concrete, any other appurtenances, labor, equipment, excavation, and backfill, to complete the pump station installation as required by the plans, standard drawings, and specifications, complete and ready-for-use. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LUMP SUM (LS) when complete.

W REMOVE TRANSITE (AC) PIPE This item shall include all labor, equipment, and materials needed for removal and disposal of the pipe as hazardous material. All work shall be performed by trained and certified personnel, in accordance with all environmental laws and regulations. Any and all transite AC pipe removed shall be paid under one bid item included in the contract, regardless of size. No separate bid items will be established for size variations. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF) when complete.

W SERVICE LONG SIDE This item shall apply to all service line installations of every size bid up to and including 2-inch inside diameter, except those service bid items defined as "Special". This item includes the specified piping material, main tap, tapping saddle (if required), corporation stop materials, coupling for connecting the new piping to the surviving existing piping, encasement of 2 inches or less internal diameter (if required by plans or specifications), labor, equipment, excavation, backfill, testing, disinfection, and restoration, at the locations shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready-for-use. This bid item is to pay for service installations where the ends of the service connection are on opposite sides of the public roadway and the service line crosses the centerline of the public roadway, as shown on the plans. The length of the service line is not to be specified. Payment under this item shall not be restricted by a minimum or maximum length. The contractor shall draw his own conclusions as to the length of piping that may be needed. Payment under this item shall include boring, jacking, or excavating across the public roadway for placement. Placement of a service across a private residential or commercial entrance alone shall not be reason to make payment under this item. Private or commercial entrances shall not be considered a public roadway in defining payment under this item. This pay item does not include installation or relocation of meters. Meters will be paid separately. No additional payment will be made for rock excavation or for special bedding required in rock excavation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W SERVICE SHORT SIDE This item shall apply to all service line installations of every size up to and including 2-inch internal diameter, except those service bid items defined as "Special". This item includes installation of the specified piping material of the size specified on plans, encasement of 2 inches or less internal diameter (if required by plans or specifications), main tap, tapping saddle (if required), corporation stop, coupling for connecting the new piping to the surviving existing piping, labor, equipment, excavation, backfill, testing, disinfection, and restoration at the locations shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready-for-use. This bid item is to pay for service installations where both ends of the service connection are on the same side of the public roadway, or when an existing service crossing a public roadway will remain and is being extended, reconnected, or relocated, with all work on one side of the public roadway centerline as shown on the plans. The length of

the service line is not to be specified and shall not be restricted to any minimum or maximum length. Placement of a service lateral across a private residential or commercial entrance alone shall not be reason to make payment under this item. Private or commercial entrances shall not be considered a public roadway in defining payment under this item. The contractor shall draw his own conclusions as to the length of piping that may be needed. This pay item does not include installation or relocation of meters. Meters will be paid separately. No additional payment will be made for rock excavation or for bedding required in rock excavation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W SERVICE RELOCATE This item is for the relocation of an existing water service line where a meter is not involved, and where an existing service line can easily be adjusted by excavating alongside and moving the line horizontally and/or vertically a short distance without cutting the service line to avoid conflicts with road construction. This item shall include excavation, labor, equipment, bedding, and backfill to relocate the line, in accordance with the plans and specifications, complete and ready-for-use. Payment under this item shall be for each location requiring relocation. Payment shall be made under this item regardless of service size or relocation length. No separate pay items will be established for size or length variations. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W STRUCTURE ABANDONMENT This item is to be used to pay for abandonment of larger above or below ground water structures such as meter vaults, fire pits, pump stations, tanks, etc. Payment under this item shall not be limited to size or scope; however, structures with connecting pipes of 2 inches or less shall not be paid under this item but shall be considered incidental to water construction (i.e., abandonment of standard water meters up to and including 2 inches would not be paid under this item). Payment under this item shall include all labor, equipment, and compacted fill or flowable fill for abandonment of the structure in-place and complete restoration. No separate bid items will be established for size or structure variations. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W STRUCTURE REMOVAL This item is to be used to pay for removal of larger above or below ground water structures such as meter vaults, fire pits, pump stations, tanks, etc. Payment under this item shall not be limited to size or scope; however, structures with connecting pipes of 2 inches or less shall not be paid under this item but shall be considered incidental to water construction (i.e., removal of standard water meters up to and including 2 inches would not be paid under this item). Payment under this item shall include all labor, equipment, and compacted backfill for removal of the structure and complete restoration. No separate bid items will be established for size or structure variations. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W TAPPING SLEEVE AND VALVE SIZE 1 OR 2 This item shall include the specified tapping sleeve, valve, valve box, concrete pad around valve box (when required in specifications or plans), labor, and equipment to install the specified tapping sleeve and valve, complete and ready-for-use, in accordance with the plans and specifications. The size shall be the measured internal diameter of the live pipe to be tapped. The size tapping sleeve and valve to be paid under sizes 1 or 2 shall be as follows:

- Size 1 = All live tapped main sizes up to and including 8 inches
- Size 2 = All live tapped main sizes greater than 8 inches

Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W TIE-IN This item shall be used for all main tie-in bid items of every size, except those defined as “Special”. This item includes all labor, equipment, excavation, fittings, sleeves, reducers, couplings, blocking, anchoring, restoration, disinfection, testing, and backfill required to make the water main tie-in as shown on the plans and in accordance with the specifications, complete and ready-for-use. Pipe for tie-ins shall be paid under separate bid items. This item shall be paid EACH (EA) when complete.

Plugging of existing abandoned mains shall be performed and paid in accordance with Section 708.03.05 of KYTC Standard Specifications for Road and Bridge Construction, using Bid code 01314, Plug Pipe.

W VALVE This item shall apply to all valves of every size required in the plans and specifications, except those bid items defined as “Special”. Payment under this description is to be for gate or butterfly valves being installed with new main. This item includes the valve as specified in the plans and specifications, polyethylene wrap (if required by specifications), labor, equipment, excavation, anchoring (if any), valve box and valve stem extensions, backfill, concrete pad around valve box (if required by specifications), restoration, testing, disinfection, etc., required to install the specified valve at the location shown on the plans, in accordance with the specifications and standard drawings, complete and ready-for-use. If required on plans and/or proposed adjoining DIP is restrained, valves shall be restrained. Valve restraint shall be considered incidental to the valve and adjoining pipe. This description does not apply to cut-in valves. Please refer to the Utility Company’s Specifications. If the Company does not have specifications, KYTC’s Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W VALVE ANCHOR EXISTING This item is intended to pay for installation of restraint hardware on an existing valve where no restraint exists, to hold the valve in place to facilitate tie-ins and other procedures where restraint is prudent. This work shall be performed in accordance with water specifications and plans. This bid item shall include all labor, equipment, excavation, materials, and backfill to complete restraint of the designated valve, regardless of size, at the location shown on the plans, complete and ready-for-use. Materials to be provided may include, but are not limited to, retainer glands, lugs, threaded rod, concrete, reinforcing steel, or any other material needed to complete the restraint. Should the associated valve box require removal to complete the restraint, the contractor shall reinstall the existing valve box, the cost of which shall be considered incidental to this bid item. No separate bid items are being provided for size variations. All sizes shall be paid under one bid item. Please refer to the Utility Company’s Specifications. If the Company does not have specifications, KYTC’s Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W VALVE BOX ADJUST This item include all labor, equipment, valve box and valve stem extensions (if required), excavation, backfill, concrete pad around valve box (when specified in specifications or plans), restoration, etc., to adjust the top of the box to finished grade, complete and ready-for-use. Please refer to the Utility Company’s Specifications. If the Company does not have specifications, KYTC’s Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W VALVE BOX REMOVE This item is in payment for all labor, equipment, restoration materials, disposal, and any other effort for removal of a valve box, leaving the valve in place. Please refer to the Utility Company’s Specifications. If the Company does not have specifications, KYTC’s Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W VALVE CUT-IN This item is for new cut-in valve installations of all sizes, where installation is accomplished by cutting out a section of existing main. This item shall include cutting the existing pipe, supplying the specified valve, couplings or sleeves, valve box, concrete pad around valve box (when required in specifications or plans), labor, equipment, and materials to install the valve at the locations

shown on the plans, or as directed by the engineer, complete and ready-for-use. Any pipe required for installation shall be cut from that pipe removed or supplied new by the contractor. No separate payment will be made for pipe required for cut-in valve installation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W VALVE REMOVE This item is in payment for all labor, equipment, and restoration materials for cutting of existing pipe and any other effort necessary for total removal of an existing valve and valve box. This bid item shall include disposal of the valve and box, unless plans or specifications state the valve and box are to be salvaged and delivered to the utility owner for reuse. No separate pay items are to be established for size variations. All valve removals, regardless of size, shall be paid under this one pay item. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

If plugging of existing abandoned mains is needed after valve removal, the work shall be performed and paid in accordance with Section 708.03.05 of KYTC Standard Specifications for Road and Bridge Construction, using Bid code 01314, Plug Pipe.

W VALVE VAULT This item is for payment for installation of an underground structure for housing of specific valve(s), as required by the plans and specifications. This item shall include all labor, equipment, excavation, concrete, manhole castings or doors, the specified valve(s), all piping, and fitting materials associated with installing a functioning valve vault, in accordance with the plans, standard drawings, and specifications, complete and ready-for-use. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

Standard Specifications

Bullock Pen Water

District

Crittenden, Kentucky

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SECTION ONE: INTRODUCTION

A. **PURPOSE** - The purpose of this manual is to provide information and guidance in the construction of water facilities that are to become a part of the Bullock Pen Water District system. The goal of this manual is to help insure the protection of the health and welfare of the general public, within the Bullock Pen Water District through the use of proper design features and construction methods.

B. **REFERENCES**- Certain technical aspects concerning construction materials and methods of construction are based on the Kentucky Department of Highways, Standard Specifications for Road and Bridge Construction, Latest Edition, hereafter referred to as K.D.H.S.S.

Other standards or specifications referred to are those of the American Society of Testing Materials (ASTM), American Association of State Highway Officials (AASHTO), Portland Cement Association (PCA), American Public Works Association (APWA) and the American Water Works Association (AWWA).

Standard drawings showing details of certain improvements, which may be issued by the District, shall be complementary to and a part of this manual.

C. **DISTRICT'S AUTHORITY** - The District shall inspect all work and must approve as to the quality and acceptability of materials furnished and work performed before the water facility will be accepted by the District. The District shall interpret the intent of these specifications in a fair and unbiased manner.

Nothing contained in these specifications or standard drawings intended to conflict with any State or Federal laws or regulations. If any requirement of these specifications or standard drawings are found to be in conflict with a State or Federal law or regulations, then the more stringent requirements shall be met. In no case shall the requirements of this manual be less stringent than any existing State or Federal law or regulation.

This manual shall be revised from time to time to insure that the requirements of this manual keep abreast with current State and Federal laws and regulations, approved construction material and recognized construction methods.

D. **OBLIGATION OF THE CONTRACTOR** -The Contractor shall perform and complete the work to the satisfaction of the District and in accordance with these specifications. The Contractor shall conduct his work so as to minimize interference with public and private business and traffic. He shall at his own expense, whenever necessary or required, provide barricades, flagmen, maintain lights, and take other precautions as may be necessary to protect life, property, adjacent buildings and structures.

The Contractor shall be liable for and indemnify and hold harmless the District against any and all claims for damages and injuries received or sustained by any person, persons or property in consequence of any neglect in safeguarding the work or by any act of neglect or misconduct by the Contractor, its agents, subcontractors, employees or workman. Indemnification shall include but not be limited to any and all attorney's fees or related cost incurred by the District in defense of any such claim, cause of action or damage.

E. COORDINATION - Coordination with the Kentucky Transportation Cabinet and the District is required concerning construction planning and procedure. A minimum of one week notice shall be given to the District prior to the planned beginning of any phase of construction. Contractor shall provide District with a written bar line schedule showing when construction will be performed. Construction shall not begin without the District's written approval of the construction schedule.

F. ACCEPTABLE MATERIALS-Whenever manufactured products, devices or materials are specified under a particular trade name or name of manufacturer, it shall be understood that the specifications are open to other manufacturers upon prior approval by the District. Only products comparable in type, quality, utility and price will be considered by the District. Burden of proof of equality shall rest with Contractor. The District shall be the sole judge of equality and reserves the right to require products or material specified by name.

G. DEFECTIVE MATERIAL AND WORKMANSHIP- Materials not in accordance with the specifications or defective work may be rejected by the District at any time before final approval and acceptance by the District. Failure by the District to reject defective work shall not be construed as an acceptance of same.

H. FINAL INSPECTION -A final inspection will be made by a representative of the District. Final inspection will be made prior to acceptance of any unit for use by the District and only after all improvements are completed. As part of the Final Inspection, the District shall be given a completed set of "As-Built" contractor mark-up plans.

I. EXISTING UTILITIES -Before proceeding with work, the Contractor shall verify location of, and possible interference with, existing utilities, arrange for necessary suspension of service, and make arrangements to locate and avoid interference with all utilities. The Contractor shall protect all utility lines which are to remain in service. The Contractor shall bear the entire responsibility for locating, and avoiding existing utilities. The Contractor shall be responsible for any and all damage done to existing utilities. Damage done to existing utilities shall be repaired promptly, to satisfaction of utility company, at no cost to the District or KYTC.

J. PUBLIC AND PRIVATE HIGHWAYS AND STREETS- Contractor shall ascertain and obey all State

and County road load limits in order to prevent damage to pavements resulting from his operation.

Contractor shall, at all times, conduct work in such manner as to insure minimum obstruction to public travel. Convenience of general public and of residents along and adjacent to area of work shall be provided for in a satisfactory manner, consistent with operation and local conditions. Flagmen shall be used at all times where work is being performed adjacent to the roadway. All traffic control shall be in compliance with FHWA MUTCD.

"Construction" signs shall be placed immediately adjacent to work, in conspicuous positions at such locations as traffic demands. Control Devices (MUTCD) published by U. S. Department of Transportation, Federal Highway Administration, Latest Edition. At any time that streets are required to be closed, Contractor shall notify law enforcement agencies, fire departments, and parties operating emergency vehicles before streets are closed and again as soon as it is reopened. Access to fire hydrants and other fire extinguishing equipment shall be provided and maintained at all times.

Trenches shall be backfilled at end of each day's work. When this is not possible, trenches left open shall be adequately protected with suitable flashing barricades, in compliance with MUTCD. All open trenches shall be plated, covered and/or fenced for public safety.

K. GENERAL GUARANTY - The Contractor shall guarantee all materials and equipment furnished and work performed for a period of one (1) year from date of acceptance. Contractor warrants and guarantees for a period of one (1) year from date of acceptance of system that completed system is free from all defects due to faulty materials or workmanship and Contractor shall promptly make such corrections as may be necessary by reason of such defects including repairs or damage of other parts of system resulting from such defects. The District will give notice of observed defects with reasonable promptness.

L. INDEMNIFICATION -The Contractor shall indemnify and hold harmless the District for any claim, cause of action or demand made against the District arising by, from and through the Contractor's construction of any water lines or related structures. Such obligation of indemnification shall include but not be limited to the reimbursement of the District for any and all attorney's fees and related costs reasonably incurred by the District in defense of any such claim, cause of action or demand.

M. VARIANCE -The District reserves the right to grant a variance from the Specifications set forth herein as the District may deem appropriate in its sole judgment and discretion. In no event shall such variance allow the Developer or Contractor to construct any water lines or related structures to standards which are less stringent to those set forth herein.

N. DEFINITIONS

APPROVED- Material, equipment, workmanship, process or method that has been accepted by the District as suitable for the proposed use.

AS-BUILT-A revised plan showing all water line, valves, hydrants, and other miscellaneous items actual location. Contractor plan markups.

CONTRACTOR - The person, firm, or corporation with whom the KYTC has executed an agreement to perform the utility construction for the project.

DISTRICT- Bullock Pen Water District or an authorized employee or representative of the Bullock Pen Water District.

ENGINEER -A Registered Professional Engineer, registered in the Commonwealth of Kentucky as set out in KRS Chapter **322**.

KYTC - Kentucky Transportation Cabinet

OWNER - The property owner of the land.

SHALL- Means a mandatory requirement.

SECTION TWO: PROCEDURES

A. **PURPOSE** - The purpose of this section is to establish a working relationship between the Owner, Developer, Contractor, Engineer and District by describing the procedure to be followed in initiating and completing the construction of water mains for connection to the Bullock Pen Water District.

B. **CONSTRUCTION PHASE** - Construction shall not begin until the approval letter from the Drinking Water Branch of the Division of Water has been received by the District and a written bar line schedule

showing when construction shall be performed has been approved by the District. A minimum of one week notice shall be given to the District prior to the planned beginning of any phase of construction. Any work performed prior to this time shall not be accepted by the District. The construction schedule shall be revised as necessary so the District knows when construction is being performed.

Any deviation or changes from the approved plans shall be approved by the District in writing prior to the deviation or change being performed.

C. **INSPECTION BY BULLOCK PEN WATER DISTRICT**- For every 300' of line laid, 10' of the line must be exposed. For any ditch with rock; for every 100' of line laid, 10' of the line must be exposed. All valves, T's and mechanical joints must be exposed. All service line connections to the main must be exposed. Two days' notice is required for the inspection.

D. **METER SERVICE** - The District will provide all materials as required for the meter setting. The Contractor or Developer shall construct and install all materials for the meter setting including corporation stop, service line, service line road crossing, meter box with lid, copper setter, necessary fittings and all other items needed for the meter setting. The meter box and lid shall be installed to match the proposed grade line. Any meter box that are either too low or high shall be reinstalled at the correct ground elevation. All cost for the lowering or raising the meter box shall be borne by the Contractor. No meters will be installed until a copy of the as-built plans are submitted to Bullock Pen Water District.

E. **FINAL INSPECTION** - Upon completion of construction a final inspection shall be held by the District. A set of "As-Built" markups shall be submitted to the District.

The water mains shall not be accepted into the Bullock Pen Water District system until the following items are provided or completed:

- (1) All items corrected from final inspection
- (2) "As-Built" markup plans

SECTION THREE: WATER MAINS

A. PURPOSE -The purpose of this chapter is to outline requirements for the proper design, construction, and final acceptance of potable water mains and appurtenances.

B. Construction Requirements

(1) Depth of Cover-All water pipe shall have a minimum cover of forty-two inches of backfill, measured from the top of the pipe.

(2) Separation of Water Lines and Sewers -Water main shall be laid at least ten feet horizontally from any existing or proposed sewer. The distance shall be measured edge to edge.

C. MATERIALS - (All material must conform to BABA requirements. No non-domestic materials.

(1) Polyvinyl Chloride Pipe (PVC)

ASTM Rated PVC Pipe -All water mains shall be constructed of polyvinyl Chloride Pipe. Polyvinyl Chloride Pipe shall conform to ASTM Specification D-2241, latest revision. Pipe shall be pressure rated Class 250 (SDR 17){minimum or as shown on the drawings.}. Pipe material shall conform to latest revisions of ASTM D-1784 (PVC pipe compounds), ASTM D-2241 (PVC plastic pipe, SDR), and ASTM D-2672 (Bell-End PVC pipe).

Joints for PVC pipe shall conform to latest revision of ASTM D-3139, (joints for plastic pressure pipes using flexible elastomeric seals). Joints shall be bells that consist of an integral wall section with a locked-in, solid cross section elastomeric ring which meets requirements of ASTM F-477. Bell sections shall be at least as hydrostatically strong as pipe wall.

Fittings shall be ductile iron, mechanical joint, Class 250, conforming to AWWA specifications C110 for short body cast iron fittings. Fittings shall be tar-coated outside and shall receive standard cement lining with bituminous seal coat on inside as specified for ductile iron pipe.

Joints for ductile iron fittings shall conform to AWWA C111 (ANSI A21.11). Bells for push-on type joints shall have an annular recess in pipe socket to accommodate a single rubber gasket. Plain ends shall be suitably beveled to permit easy entry into bell. Basket and annular recess of socket shall be so designed and shaped that gasket is locked in place against displacement as joint is assembled.

PVC Pipe General

All 90° bends and other fittings that require thrust blocks shall be ductile iron (or approved equal) with transition gaskets to accommodate outside diameter of PVC pipe.

Lubrication for rubber connected joints and fittings shall be water soluble, non-toxic, non-

objectionable in taste and odor and have no deteriorating effect on PVC or gaskets and shall be supplied by pipe manufacturer.

All PVC pipe and fittings shall bear National Sanitation Foundation (NSF) approved seal for potable water.

Grip rings (mega lug style or all grip #3600) shall be used in joining PVC pipe to ductile iron fittings, valves, etc. Grip rings will be required only on bends, tees or end of lines.

(2) Ductile Iron Pipe - Mechanical and Rubber Slip Joint Type

All water mains with maximum pressures exceeding 200 psi shall be constructed of Ductile Iron. Ductile iron pipe shall be designed in accordance with **ANSI-AWWA C1150/A21.50-91** and **ANSI/AWWA C151/A21.51-91** specifications and supplements thereto.

The net weight, class or nominal thickness, and casting period shall be shown on each pipe. The manufacturer's mark, the year in which the pipe was produced and the letters "DI" or "DUCTILE" SHALL BE CAST OR STAMPED ON THE PIPE. The spigot end of the pipe shall be free of blemishes and defects which might be responsible for a poor fit with the rubber ring gasket and result in leakage. All ductile iron pipe for water service shall have manufacturer's standard outside bituminous or asphaltic base coating and cement lining and bituminous seal coat on the inside. Cement mortar lining and bituminous seal coat inside shall conform to **ANSI/AWWA C104/A21.4-90**.

Ductile iron compact fittings, meeting the requirements of **ANSI/AWWA C153/A21.53-88**, will be accepted through 16-inch diameter. Fittings larger than 16-inch diameter shall meet the requirements of **ANSI/AWWA C110/A21.10-87**. Fittings shall be 350 psi pressure rating for all sizes through 30 inches. All fittings shall be lined and coated the same as adjacent pipe.

Pipe joints shall be mechanical-joint or rubber ring slip joint. All items used for joining pipe shall be furnished with the pipe. The joints shall be made with tools and lubricant in strict conformity with the manufacturer's instructions. Copies of the instructions shall be delivered to the ENGINEER at start of construction in sufficient numbers that will permit the ENGINEER to retain 3 copies. Mechanical joints are to be furnished according to **ANSI/AWWA C111/A21.11-90**. All pipe joints must be furnished complete with all accessories. Mechanical joint bolts and nuts shall be of alloy cast iron or alloy steel (Carten type such as U.S. Alloy) or equal. Rubber gaskets shall be made of plain first grade rubber, free of imperfections and porosity. Rubber ring slip Joint shall be equal to **ANSI/AWWA C1111/A21.11-90**.

When the water main is located within 200-foot radius of an underground storage tank (UST), special rubber gaskets shall be provided for the water main joints. These gaskets shall be manufactured of "nitrile rubber" material or other acceptable material possessing superior

resistance to deterioration from petroleum-based products. This requirement will apply to the gaskets supplied for mechanical joints and push-on joints.

(3) High Density Polyethylene Pipe (HDPE)

High Density Polyethylene Pipe shall be used on all bores, creek crossing and other encased pipe over 50 feet long. High density polyethylene pipe shall conform to AWWA C906, latest revision. Pipe shall have a minimum be pressure rated DR 9 for water lines and DR 9 for encasement pipe. Pipe material shall conform to latest revisions for PE 4710 high density polyethylene for ASTM D3350 cell classification 445474C.

Polyethylene fittings shall be made from material meeting the same requirements as the pipe. Polyethylene fittings shall be molded or fabricated by the manufacturer of the pipe. Fittings shall meet the requirements of **AWWA** C906. Molded fittings shall be manufactured in accordance with either ASTM D2682 (socket fused) or ASTM D3261 (butt fused) and shall be so marked.

Joints between plain ends of polyethylene pipe shall be made by butt fusion. The Pipe Manufacturer's fusion procedures shall be followed at all times as well as the recommendations of the Fusion Machine Manufacturer. The wall thickness of the adjoining pipes shall have the same DR at the point of fusion. All employees working on fusions connections shall be certified by the pipe manufacturer as qualified to perform fusion connects. On each day butt fusions are to be made; the first fusion of the day shall be a trial fusion. The trial fusion shall be allowed to cool completely, then fusion test straps shall be cut out. The test strap shall be 12" or 30 times the wall thickness in length (minimum) and 1" or 1.5 times the wall thickness in width of the strap touch. If the fusion fails at the joint, a new trail fusion shall be made, cooled completely and tested. Butt fusion of pipe to be installed shall not commence until a trial fusion has passed the bent strap test.

(4) Steel Encasement Pipe - Steel encasement pipe shall be steel, plain end uncoated and unwrapped, have a minimum yield point strength of 35,000 psi and conform to ASTM A252 Grade 2 or ASTM A139 Grade B without hydrostatic tests. Steel pipe shall have continuous welded joints and be in at least 18- foot lengths. Used pipe can be used if the minimum wall thickness is met.

Wall thickness of pipe shall be a minimum of 0.250 inches. Diameter of pipe shall conform to requirements of Kentucky Transportation Cabinet, Bureau of Highways for highway crossings and the American Railway Engineering Association.

When crossing existing paved streets, Contractor shall install encasement pipe by boring method. Encasement pipe shall be installed using equipment that mechanically bores the hole with a cutting head and continuous auger inside the encasement pipe. Encasement pipe shall be installed simultaneously with boring the hole.

On roads under construction, the steel encasement pipe can be installed by open cutting road. Flowable fill shall be used for backfill over top of the steel encasement.

Spacers shall be used at every 10 feet. Manufactured end sections shall be used at the end of the steel encasement.

Attached threaded rod to nearest fitting outside of encasement pipe.

(5) Steel Encasement Pipe (creek crossings)

Spacers shall be used at every 10 feet. Manufacturers end sections shall be used at end of steel encasement.

(6) Gate Valves and Boxes

All gate valves shall be of double disc, parallel seat type or resilient seated type, iron body, non-rising stem, fully bronze mounted with O-ring seals and stainless-steel bolts. Valves shall be of standard manufacture and of highest quality both as to materials and workmanship and shall conform to latest revisions of AWWA Specification C-500. Valves shall have a rated working pressure of 250 psi, with standard mechanical joint, A-2380-23 as manufactured by Mueller Co., Darling, Smith, Kennedy, or approved equal.

Gate valves for buried service shall be furnished with mechanical joint end connections, unless otherwise indicated on Drawings. End connections shall be suitable to receive ductile iron, or PVC.

Gate valves for inside service shall be handwheel operated, double disc, parallel seat type, iron body, fully bronze mounted with O-ring stem seals, flanged faced and drilled to match ASA Class 125.

All gate valves shall have name or monogram of manufacturer, year valve casting was made, size of valve, and working pressure cast on the body of valve.

Gate valves set with valve boxes shall be provided with a 2" square operating nut and shall be opened by turning to left (counterclockwise); gate valves set in vaults or pits shall be furnished with handwheels.

Gate valves shall be installed in a vertical position with valve box. Valve boxes shall be six-inch PVC pipe with a cast iron cover marked "WATER". They shall be set vertically and properly adjusted so that cover will be in same plane as finished surface of ground, street, or sidewalk.

Valve boxes shall be accurately centered over valve operating nut, and backfill thoroughly tamped about them. Valve box bases shall not rest on valves but shall be supported on crushed stone fill. They shall be set vertically and properly cut and/or adjusted so that tops of boxes will be at grade

in any paving, walk or road surface, and two inches above ground in grass plots, fields, woods or other open terrain.

A pre-cast concrete valve pad 24 inches in diameter by four (4) inch thick shall be furnished around valve boxes.

Tracer wire shall be run outside of valve box and then laid inside the top of the box below the cap.

(7) Creek Crossing Valve

The creek crossing valve will consist of a gate valve installed in the main water line, two saddles and one inch PE pipe on either side of the gate valve and a meter setting connecting the two 1-inch lines.

The copper meter setters shall be as specified elsewhere in the specifications except that both valves shall be angle ball valves (Ford #VB 72-7W-44-33).

(8) Fire Hydrants

Contractor shall furnish and install dry head type fire hydrant where indicated on Drawings or as directed by District. Hydrants shall conform in all respects to requirements of AWWA CS02-73. Hydrant barrel shall have safety breakage feature above the ground line. All hydrants shall have mechanical joint shoe connection, two 2- ½ inch discharge nozzles and one 4-1/2 inch pumper nozzle with caps fitted with cap chains. Connection threads and operating nuts shall conform to National Standard Specification as adopted by National Board of Fire Underwriters.

Operating nut shall be 1- ½ inches, and shall open left (counterclockwise). Main valve shall have 5-1/4 inch full opening for 6-inch hydrants, and be of the compression type opening against water pressure so that valve remains closed should the barrel be broken off.

Hydrant shall be fully bronze mounted. Main valve shall have a threaded bronze seat ring assembly of such design that it is easily removable by unscrewing from a threaded bronze drain ring. Bronze drain ring shall have multiple ports providing positive automatic drainage as the main valve is opened or closed.

Drainage waterways shall be completely bronze to prevent rust or corrosion.

Operating stem shall be equipped with anti-friction thrust bearing to reduce operating torque and assure easy opening. Stop shall be provided to limit a stem travel. Stem threads shall be enclosed in a permanently sealed lubricant reservoir protected from weather and the waterway with O-ring seals.

Hydrants shall be designed for 150 psi working pressure and shop tested to 300 psi pressure with

main valve both opened and closed. Under test the valve shall not leak, the automatic drain shall function and there shall be no leakage into the bonnet.

Hydrants shall be set plumb with not less than three cubic feet of crushed stone and backed with at least one cubic foot of Class "C" concrete or equivalent. Hydrants shall be attached to water main by an anchor tee, anchor coupling, gate valve and 36-inch ductile iron connecting coupling. All piping from water main to hydrant shall be ductile iron.

Hydrants shall be installed with a vertical distance from the center of the pumper nozzle to the ground of 16 to 18 inches. A 24-inch anchor coupler shall be installed between the valve and the hydrant.

Gradelock by Assured Flows, Inc or approved equal shall be installed between the gate valve and hydrant when the 16-to-18-inch clearance cannot be obtained with the finish grade. All fire hydrants shall be provided with a shut-off valve in the hydrant lateral as indicated on Drawings. Inlet cover depth shall be minimum 36 inches.

Hydrants shall be Centurion Model A423 with 5-1/4 inch opening for 6-inch hydrants as manufactured by Mueller Company.

Hydrants shall be painted with one (1) coat of No. 2472 Safety Red (Porter Paint or approved equal). All cleaning, priming and painting shall be in accordance with paint manufacturers recommendations.

Hydrants shall be bagged until they are in operation.

(9) Flush Hydrants

Contractor shall furnish and install dry head type flush hydrants where indicated on Drawings or as directed by Engineer. Hydrants shall conform in all respects to requirements of **AWWA** C502-73. Hydrant barrel shall have safety breakage feature above the ground line. All hydrants shall have mechanical joint shoe connection having two 2- 1/2" inch discharge nozzles and with both having caps fitted with cap chains. Connection threads and operating nuts shall conform to National Standard Specification as adopted by National Board of Fire Underwriters.

Operating nut shall be 1- 1/2", and shall open left (counterclockwise). Main valve shall have 4-1/2" opening, and be of the compression type opening against water pressure so that valve remains closed should the barrel be broken off.

Hydrant shall be fully bronze mounted. Main valve shall have a threaded bronze seat ring assembly of such design that it is easily removable by unscrewing from a threaded bronze drain ring. Bronze drain ring shall have multiple ports providing positive automatic drainage as the main valve is opened or closed. Drainage waterways shall be completely bronze to prevent rust

or corrosion.

Operating stem shall be equipped with anti-friction thrust bearing to reduce operating torque and assure easy opening. Stop shall be provided to limit a stem travel. Stem threads shall be enclosed in a permanently sealed lubricant reservoir protected from weather and the waterway with O-ring seals.

Hydrants shall be designed for 150 psi working pressure and shop tested to 300 psi pressure with main valve both opened and closed. Under test the valve shall not leak, the automatic drain shall function and there shall be no leakage into the bonnet.

Hydrants shall be set plumb with not less than three cubic feet of crushed stone and backed with at least one cubic foot of Class "C" concrete or equivalent. Hydrants shall be attached to water main by an anchor tee, gate valve and 36" ductile iron anchor coupling. All piping from water main to hydrant shall be ductile iron. All piping from water main to hydrant shall be ductile iron.

Hydrants shall be installed with a vertical distance from the center of the nozzle to the ground of 16 to 18". Gradelok by Assured Flows, Inc. or approved equal shall be installed between the gate valve and hydrant when the 16 to 18" clearance cannot be obtained with finish grade. All fire hydrants shall be provided with a shut-off valve in the hydrant lateral as indicated on Drawings. Inlet cover depth shall be minimum 36".

Hydrants shall be painted with one (1) coat of No. 2472 Safety Red (Porter Paint or approved equal.) All cleaning, priming and painting shall be in accordance with paint manufacturers recommendations

Hydrants shall have bags placed over them until they are in operation.

(10) Air Release Valves

Air release valves and boxes shall be installed at high points in lines. Valve shall have a 1-inch screwed inlet diameter with a minimum 3/32 inch size orifice. Body and cover shall be constructed of cast iron and float shall be of stainless steel or hard rubber. Valves shall be suitable for use in lines with an operating pressure range of 0 to 150 psi. Valves shall be equivalent to APCO No. 75, or approved equal.

Air release valve box shall be 18 inch by 30-inch PVC meter box and shall be set on a No. 9 crushed stone or gravel base. Cover shall be cast iron, medium duty, perforated and of proper size to fit bell of pipe.

(11) Tapping Sleeve and Valves

Tapping sleeves for connections to existing water lines shall be of the mechanical joint type suitable for

working pressures of 150 psi and shall be 3490 MJ Powerseal (fully gasketed) or approved equal.

Tapping valves shall be of mechanical joint type suitable for working pressures of 150 psi and shall be Mueller No. H902020, or approved equal.

(12) Meter Service Connections

Service clamps or saddles shall be used for service connections to PVC pipe of all sizes. Saddles for PVC mains shall be bronze and be Mueller Series H-13000 or S-13000 or approved equal.

Corporation stops for use in service clamps or in direct taps shall be Mueller H-15000 or approved equal, for PVC pipe. Stops shall be appropriate for ¾ and 1 inch size polyethylene service pipe or for 1-1/2 and 2 inch size HDPE service pipe. Rigid plastic insert stiffeners shall be used inside polyethylene pipe at junction with corporation stop.

Corporation stops shall be placed from 9:00 to 3:00. In areas with pressure over 100 psi, ball valves must be used. The areas to receive the ball valves shall be shown on the plans.

(13) 3/4" and 1" Polyethylene Pipe (PE)

Pipe shall be made from virgin, ultra-high molecular weight polyethylene resin. Dimensions and tolerances shall meet values as listed in ASTM D-2737, latest revision, "Specifications for Polyethylene Plastic Pipe (SDR-PR)". Standard dimension ratio shall be SDR9-PE3048. Pipe shall be rated for use with water at 73.40 F at hydrostatic design stress of 630 psi and a maximum working pressure of 200 psi.

Surface shall be homogeneous inside and out and completely free of irregularities. The tubing shall carry the National Sanitation Foundation seal of approval for potable water. Pipe shall be marked in lettering at intervals of not more than five (5) feet and such marking shall include nominal size; manufacturer's name or trademark; pressure rating for water at 73.40 F., 200 psi; applicable ASTM specification; ASTM material specification, PE 3408; standard dimension ratio, SDR-9; the National Sanitation Foundation Seal of Approval (NSF mark) and production code. Polyethylene pipe shall be SDR-9, Driscopipe 5100 ultra- line or approved equal.

(14) Meter Setting Equipment

Copper meter setters for 5/8" x 3/4", ¾" and 1" meter settings without individual pressure reducing valves, shall be catalog number B1434-22 by Mueller Co. or approved equal. All setters shall have two valves, one being an angle ball valve and the other being an angle check valve. Locking devices with pins and seals furnished, shall be provided for all setters. All connections shall be the type for PE pipe. Meter setters for settings having individual PRV's shall be those corresponding to the catalog numbers listed above.

A rigid plastic insert stiffener shall be used inside the PE pipe at its connection to both sides of the

meter yoke. Stiffener shall be approved equal to Ford Catalog insert 71 for 3/4" pipe and insert 72 for 1" pipe.

The valve used inside the meter box on the 1-1/2" and 2" meter services shall be Ford BF 73-666 for 1- 1/2" PVC pipe and Ford BF 73-777 for 2" PVC pipe, or approved equal. All 1-1/2" and 2" meter setters shall have a bypass.

A 3/4" X 18" P.V.C. pipe shall be installed in box to hold the meter setter in place. The meter setter should have a brace eye to accommodate this pipe.

(15) Pressure Reducing Valves

Pressure reducing valves *for* individual residences shall be installed when maximum pressure at the meter exceeds 150 psi and shall be Wilkins Model 70 or approved equal, with maximum inlet pressure 200 psi, factory set outlet pressure 60 psi. PRV's shall be installed in customer's meter box in tandem copper meter setter.

(16) Meter Boxes

Meter boxes shall be PVC and shall be 18" in diameter x 30" and be of the ultra-rib style of construction. Metal lids shall be solid with 1/2" ring around bottom (vestal) with a 1 3/4" touch pad hole.

(17) Water Meters

Water meter will be furnished by the District.

(18) Tracer Tape

Tape shall consist of a solid aluminum foil coil encased in a protective plastic jacket. The materials and ink color shall not change when exposed to the alkalies, acids and other destructive chemical variances commonly found in soil. The foil coil shall be visible to ensure continuity. Tape shall be a minimum width of 2 inches and colored blue with the word "water" marked on the tape. The minimum thickness shall be 5.5 mil with a minimum tensile strength of 4000 psi. Tape shall be installed a minimum of one foot above the top of the pipe".

(19) Tracer Wire

A No. 12 coated copper wire shall be installed parallel to all nonmetallic pipe. Tracer wire shall be installed to ground level at all valves and hydrants as shown on typical details. Tracer wire shall be run

outside valve box to top of valve box then over top of valve box with 4 feet of tracer wire in the valve box. When gate valves or hydrants are not within 800 feet, cast iron boxes will be installed with prefab holes for the tracer wire. Tracer wire will come to the surface at a maximum distance of 800 feet. All service lines running under road will have tracer wire with 4 feet inside meter box.

(20) Blow-offs

On all water lines where hydrants are not shown at location needed to blow air off the water line, a two-inch saddle will be installed on the water line with two-inch HDPE piping with metal inserts installed in a standard meter box. Location of the blow-off will be approved by the District prior to construction of blow-off.

D. EXCAVATION FOR TRENCHES - Except as otherwise noted or directed by District, trenches in which water lines are to be laid shall be excavated in open cut to depths as indicated on Drawings (42" minimum pipe cover). In general, this shall be interpreted to mean that machine excavation in earth shall not extend below an elevation permitting lower quadrant of pipe to be bedded in undisturbed ground, and excavation in rock shall extend below invert elevation a sufficient distance to accommodate a layer of bedding material as specified elsewhere in this section.

When excavated material is placed on paved roads, the Contractor shall clean road with power broom at the end of each day's work or as directed by the Engineer. When excavated material is placed on gravel or dirt roads, the Contractor shall place crushed stone to the same thickness of the road prior to construction as determined by the Engineer.

If foundation is good firm earth and machine excavation has been accomplished as set out hereinbefore, remainder of material shall be excavated by hand and earth pared or molded to give full support to lower quadrant of barrel of each pipe. Where bell and spigot are involved, bell holes shall be excavated during this latter operation to prevent bells from being supported on undisturbed earth. If for any reason machine excavation in earth is carried below an elevation that will permit type of bedding specified, then a layer of granular material shall be placed so that lower quadrant of pipe will be securely bedded in granular fill.

If foundation is rock and excavation has been undercut as set out hereinbefore, a bed of No. 9 crushed stone or tamped earth shall be placed to provide continuous support for lower quadrant of pipe.

Trenches shall be a minimum width of 12 inches plus diameter of pipe to provide free working space on each side of pipe and to permit proper backfilling around pipe, but unless specifically

authorized by District, trenches shall in no case be excavated or permitted to become wider than 2'-6" plus nominal diameter of pipe at level of or below top of pipe. If trench does become wider than 2'-6" plus nominal diameter of pipe at level of or below top of pipe, special precautions may be necessary such as providing compacted, granular fill up to top of pipe or providing pipe with additional crushing strength as determined by District after taking into account actual trench loads that may result and strength of pipe being used. Trenches cut in roads and streets shall not exceed a maximum width of 3'-6" plus nominal diameter of pipe at level or street surface.

Unless specifically directed otherwise by District, not more than 1000 feet of trench shall be opened ahead of pipe laying work of any one crew, and not more than 1000 feet of open ditch shall be left behind pipe laying work of any one crew. Watchmen or barricades, lanterns and other such signs and signals as may be necessary to warn public of dangers in connection with open trenches, excavations and other obstructions, shall be provided by and at expense of Contractor. All traffic control shall comply with FHWA MUTCD, current edition.

Pipe laying operation shall be continuous from beginning to end with no gaps allowed in the line. Means shall be made available for prompt and continuous removal of water from all excavation.

E. PIPE BEDDING - Foundation for pipes laid in trenches shall be prepared so that entire load of backfill on top will be carried uniformly on barrel of pipe. Pipe bells shall not carry any load of backfill.

In trenches where solid rock is removed from trench bottom, pipe shall be bedded on six (6) inches thickness of No. 9 crushed stone.

When wet, mucky, yielding or otherwise unsuitable material is located below proposed pipe bedding elevation, such material shall be removed and replaced with No. 9 crushed stone.

F. PIPE LAYING -All pipe shall be laid with ends abutting and true to lines indicated on Drawings. Pipe shall be fitted and matched so that it will provide a smooth and uniform invert and be centered in the trench. All pipe shall be laid uphill when grade exceeds five percent.

Fittings and special connections for water main shall be provided and laid as pipe is laid and where directed by District or as indicated on Drawings.

Before each piece of pipe is lowered into trench, it shall be thoroughly swabbed out to insure its being clean. Any piece of pipe or fitting which is known to be defective shall not be laid or placed in trench. If defective pipe or fittings shall be discovered after pipe is laid, it shall be removed and replaced with a satisfactory pipe or fitting. In case a length of pipe is cut to fit in a line, it shall be so cut as to leave a smooth end at right angles to longitudinal axis of pipe. Jointing shall be accomplished in accordance with the manufacturer's recommendations.

Interior of pipe shall be cleaned of dirt, jointing materials, and superfluous materials of every description. When laying pipe is stopped for any reason, exposed end of pipe shall be closed with a plug fitted into pipe bell so as to exclude earth or other material and precautions taken to prevent floatation of pipe by runoff into trench.

No backfilling (except for securing pipe in place) over pipe will be allowed until District has had an opportunity to make an inspection of joints, alignment and grade in section laid, but such inspection shall not relieve Contractor of further liability in case of defective joints, misalignment caused by backfilling and other such deficiencies that are noted later.

At all tees, plugs, caps and bends of 11-1/4° and greater, and at reducers or in fittings where changes in pipe diameter occur, movement shall be prevented by using suitable harness, thrust blocks or ballasts. Hydrants and valves shall be provided with similar protection. Thrust blocks and supports shall be as indicated on Drawings, with sufficient volumes of concrete being provided; however, care shall be taken to leave weep holes unobstructed and allow for future tightening of all nearby joints. Unless otherwise directed by Engineer, thrust blocks shall be placed so that pipe and fitting joints will be accessible for repair.

Bridles, harness or pipe ballasting shall meet with approval of District. Steel rods and clamps shall be galvanized or otherwise rust-proofed.

In cold weather, extra caution shall be used in handling and laying PVC pipe.

G. BACKFILLING PIPELINE TRENCHES

Backfilling pipeline trenches shall be accomplished in accordance with methods outlined hereinafter. In all cases, walking or working on the completed pipelines, except as may be necessary in tamping or backfilling, will not be permitted until trench has been backfilled to a point one (1) foot above top of pipe. Filling of trench shall be carried on simultaneously on both sides of the pipe in such a manner that completed pipeline will not be disturbed and injurious side pressures do not occur.

The methods of backfilling shall be as follows:

Method A-Areas Not Subject to Vehicular Traffic

The lower part of the trench up to a point one (1) foot above the top of the pipe shall be backfilled with earth free from rock, acceptable to the District, or with crushed stone when a condition exists as mentioned below in this article. In the remainder of the trench, the backfill material shall be reasonably free from large rock (over one-half cubic foot in volume). All backfill shall be compacted to 95% optimum density in non-pavement areas.

Method B -All Proposed Streets, Roads, and Drives and Existing Gravel Streets, Roads, and Drives (Open Cut Method)

Trench shall be backfilled with flowable fill. Backfill shall be placed full depth in trench to bottom of surfacing material. Granular can be used to one foot over pipe. Remainder shall be flowable fill.

Method C - All Existing Asphalt or Concrete Paved

Drives All existing paved driveways shall be free bored.

In areas where large quantities of rock are excavated, and the available excavated earth in the immediate vicinity is insufficient for placing the required amount of backfill over the top of pipe as set forth in Method A this article, then the Contractor must haul in suitable earth for backfilling over the top of the pipe.

When directed by the District, the Contractor shall add water to the backfill material or dry out the material when needed to attain a condition near optimum moisture content for a maximum density of the material when it is tamped. The Contractor shall obtain a compaction of the backfill of at least 95 percent of standard (ASTM D-698) Proctor density where mechanical tamping of backfill is required.

H. HIGHWAY AND RAILROAD CROSSINGS - Steel encasement pipe for road and railroad crossings shall be bored and/or jacked in place to the elevations shown on the plans. All joints between lengths shall be solidly welded with a smooth non-obstructing joint inside. The encasement pipe shall be installed without bends. The water line pipe shall be installed after the encasement pipe is in place.

Installation of the water pipe in the encasement pipe shall be as per material specifications.

CONCRETE ENCASEMENT- Concrete encasement shall be placed where shown on drawings, or as directed by District. Concrete shall be Class 3500 psi and shall be mixed sufficiently wet to permit it to flow under pipe to form a continuous bed. In tamping concrete, care shall be taken not to disturb grade or line of pipe or injure joints.

I. CREEK CROSSINGS - Water main at creek crossings shall be encased steel pipe.

J. CLEAN-UP AND RESTORATION - Contractor shall remove all debris and surplus construction materials resulting from his work on a daily basis. Contractor shall grade ground along each side of pipe trench in a uniform and neat manner leaving construction area in a shape as near as possible to original ground line or proposed ground line.

K. TESTING

Water mains, services and all appurtenances shall be tested to 50 psi over the operating pressure of the pipe. Defective joints of pipe shall be cut out and replaced as directed by Engineer. Cracked or defective pipe fittings, valves or hydrants disclosed in pressure test shall be replaced by Contractor with sound material, and test shall be repeated until test results are satisfactory to District.

Contractor shall maintain required pressure for six hours and shall measure the amount of water necessary to maintain this pressure for this length of time. The amount of water used to maintain pressure shall not exceed five gallons per 24 hours per mile of pipe per inch nominal diameter of the pipe.

All leaks shall be repaired whenever or wherever there is evidence of a leak. Water used by Contractor shall be paid for by Contractor at the rate of \$4.30 per 1,000 gallons or as revised on the Public Service Commission approved rate schedule.

All fittings, meters, equipment, tools and other material required for testing shall be provided by Contractor, and remain property of Contractor at completion of project.

L. DISINFECTION OF WATER LINES - New potable water lines shall not be placed in service, either temporarily or permanently, until they have been thoroughly disinfected in accordance with the following requirements and to the satisfaction of District.

After testing, a solution of hypochlorite using granule chlorine shall be introduced into the section of the line being disinfected sufficient to insure a chlorine dosage of at least 50 ppm in the main. A chart will be supplied by the District showing the amount of granule chlorine that will be needed. While the solution is being applied, the water should be allowed to escape at end of the line until tests indicate that a dosage of at least 50 ppm has been obtained throughout the pipe. Open and close all valves and cocks while chlorinating agent is in the piping system. The chlorinated water shall be allowed to remain in the pipe for 24 hours, after which a residual of at least 25 ppm shall be obtained. The disinfection shall be repeated until 25 ppm is obtained, after which time the main shall be thoroughly flushed until the residual chlorine content is not greater than 1.0 ppm.

Following disinfection of the line, bacteriological samples shall be collected by District staff and analyzed in accordance with the requirements of Kentucky Department for Natural Resources and Environmental Protection.

When the samples have been approved, the new line then may be connected to the system.

M. VARIANCE - The District, in its discretion, can grant a variance or modification from items contained in this section of the specifications. In no event shall such variance from the specifications and standards set forth in this section be less than those contained therein or as may be required by any governmental regulatory agency.

SECTION FOUR: SEEDING

All restoration of grassy areas shall be performed per KYTC specs.

Preapproved Bullock Pen Water District Contractors

Swartz Pipeline Contracting
Mt. Sterling
Contact: Justin Staton
606-336-0280 (Cell)

Frederick & May Construction Company
West Liberty
Contact: Jamie
Shields 606-776-0030
(Cell)

Atkins Excavating Company
Corbin
Contact: Greg Burtram
606-528-9144 ext. 304

Lankard Construction
Florence
Contact: Ronnie Lonkard
859-393-2563 (Cell)



KENTUCKY TRANSPORTATION CABINET
Department of Highways
DIVISION OF ENVIRONMENTAL ANALYSIS
CATEGORICAL EXCLUSION DETERMINATION

TC 58-48
Rev. 10/2019
Page 1 of 1

1. PROJECT SUMMARY

Item #: 6-40001 (KYTC Structure ID 041B00019N)	Project Sponsor: FHWA and KYTC
Route(s): KY 1942 Elliston-Mt. Zion Road	County:
Project Description: The project proposes to replace the two-lane, concrete and steel I-Beam bridge on KY 1942 over Napoleon Branch in Grant County, KY (Appendix A, Exhibit 1). Photographs of the structure and the Bridge Inspection Report are in Appendix B with the State Historic Preservation Office (SHPO) coordination. Exhibits of the project and project area and project design are in Appendix A. Native American Consultation (NAC) is underway for the Elliston Cemetery in the southeast portion of the project area. No NAC issues are anticipated. A note is included in the project plans to avoid the area during construction.	

2. ENVIRONMENTAL DETERMINATION

Functional Area	Determination	Comments/Commitments/Mitigation
Public and Resource Agency Controversy	No	No controversy
Total acreage of fee simple ROW	Approximately 1 acres	No issues
Number of Total Relocations	0	No relocations
Environmental Justice Impacts	No	No impacts
Section 106: Architectural Historic	No Effect	No effect: SHPO concurrence 1/3/23 (Appendix B)
Section 106: Archaeological Resources	No Effect	No adverse effect: SHPO concurrence 2/14/23 (Appendix B)
Section 4(f)	No 4(f) Properties	No 4(f) properties
Section 6(f)	No 6(f) Properties	No 6(f) properties
Noise	Not a Type I	No study or further action
Air Quality Impacts		No study or further action
Hazardous Materials Impacts	No	No studies or further action
Section 7: T&E Species		No critical habitat, no effect (Appendix B)
Anticipated Feet of Stream Impacts	150 feet	401 General WQC, 404 NW Permit 3 (Appendix B)
Anticipated Acreage of Wetland Impacts	Stream Only	No impacts
Anticipated Permits	Yes	401 General WQC, 404 NW Permit 3
Other:		KPDES KY R-10
Other:	Tribal Coordination	Underway, no issues anticipated
Other:	Elliston Cemetery	Note in plans, will be avoided during construction

Based on the criteria listed above, in review of the most recent Categorical Exclusion Agreement between KYTC and FHWA, the subject project is determined to be considered a Categorical Exclusion, Level CEMP.

3. ENVIRONMENTAL DOCUMENT APPROVAL

Based on the information obtained during the environmental review process and included as attachments to this form, the project is determined to be a Categorical Exclusion under 23 CFR part 771 pursuant to the National Environmental Policy Act and complies with all other applicable environmental laws, regulations, and Executive Orders. The project action does not individually or cumulatively have a significant effect on the natural and human environment.

<div></div> <div>District Environmental Coordinator</div>	<div></div> <div>Date</div>	<div>Randall Thomas</div> <div>Project Manager</div>	<div>3/9/23</div> <div>Date</div>
<div>Casey Claunch</div> <div>Environmental Project Manager</div>	<div>3/9/23</div> <div>Date</div>	<div></div> <div>Director of Environmental Analysis</div>	<div></div> <div>Date</div>
<div></div> <div>Recommended by FHWA</div>	<div></div> <div>Date</div>	<div></div> <div>Federal Highway Administration</div>	<div></div> <div>Date</div>

APPENDIX A

Exhibits And Design

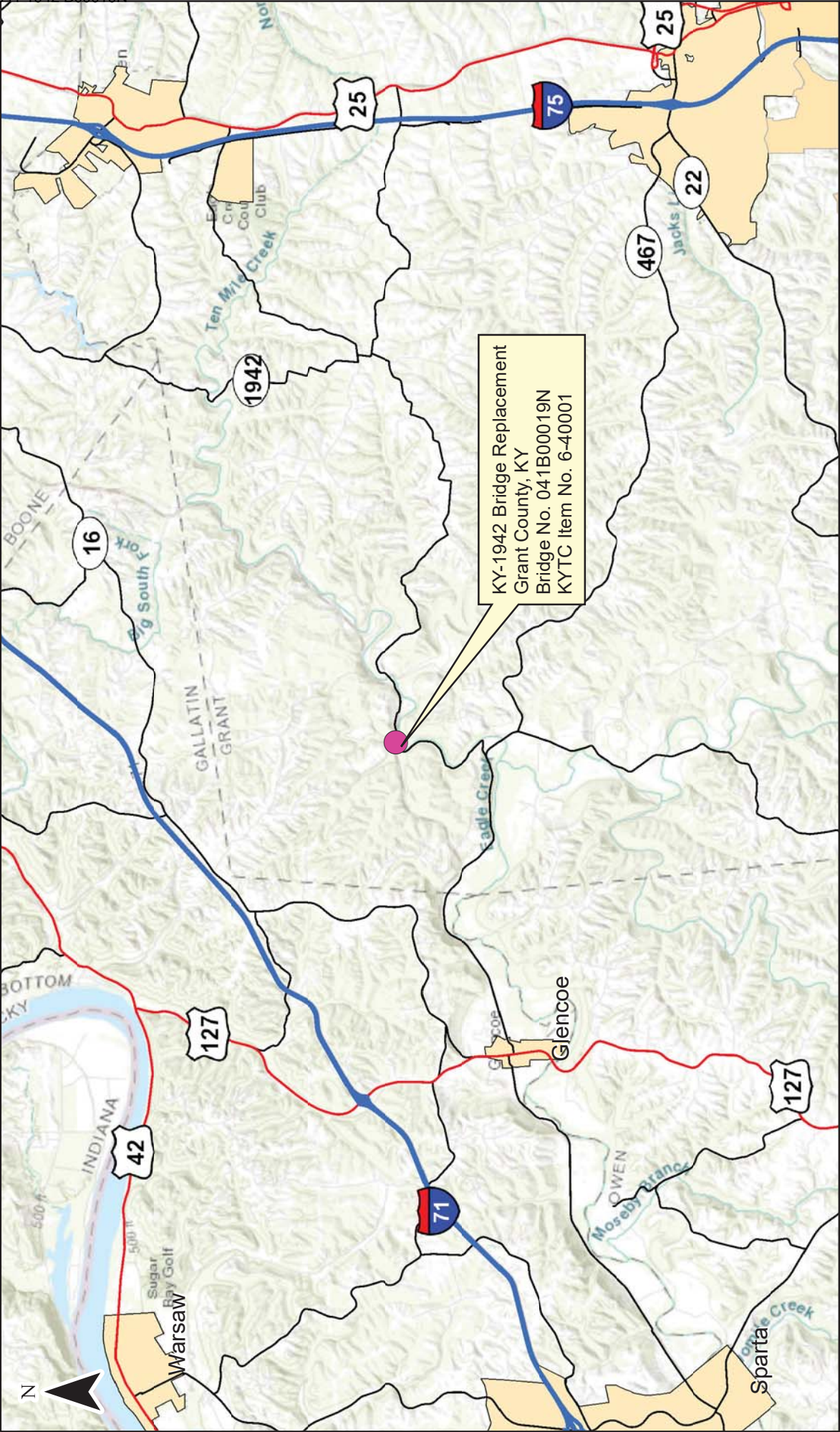


Exhibit 1: Vicinity Map

Bridge Location

Interstate

US Highways

State Roads

0

2

4

Miles

KY-1942 Bridge Replacement

Grant County, KY

Bridge No. 041B00019N

KYTC Item No. 6-40001

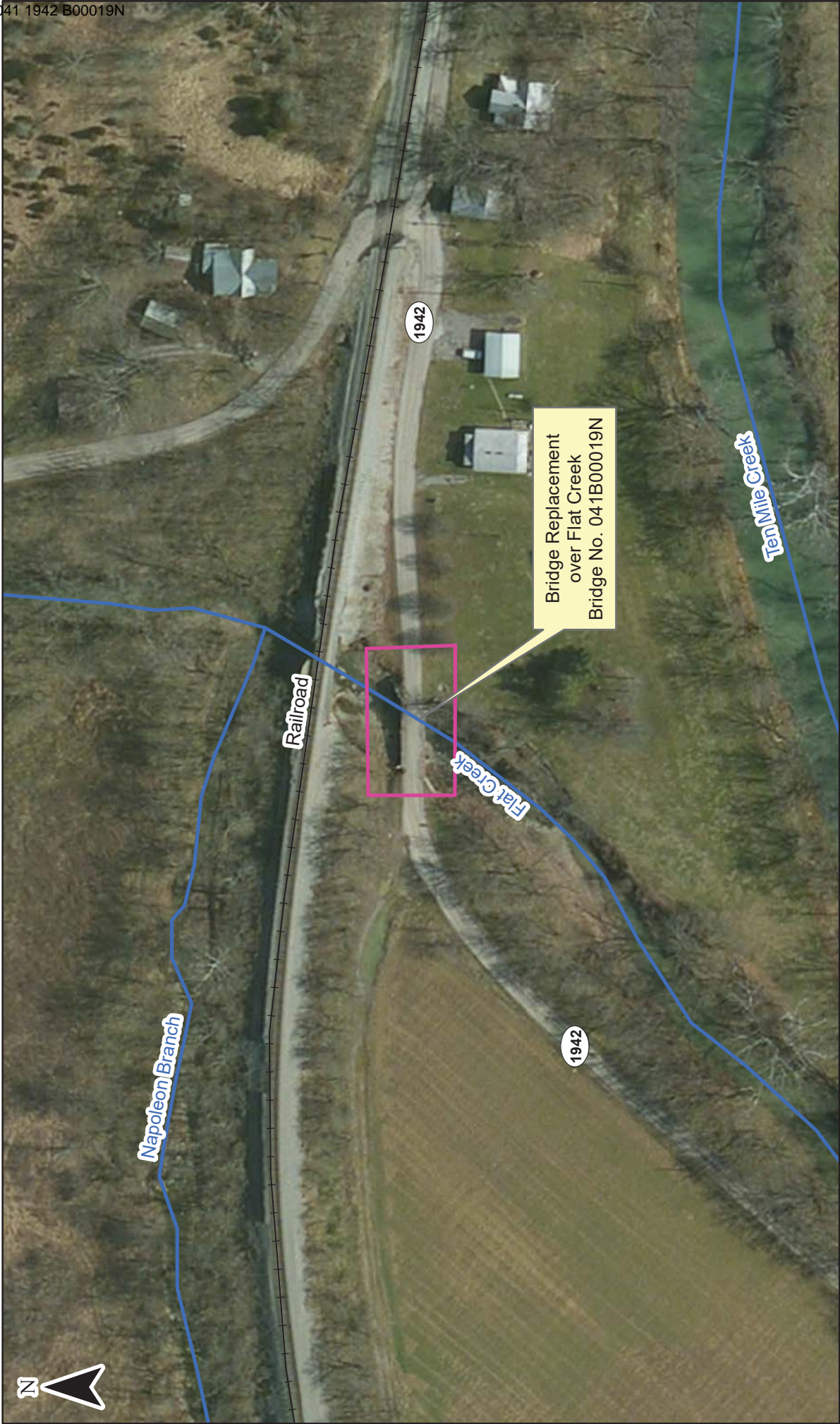
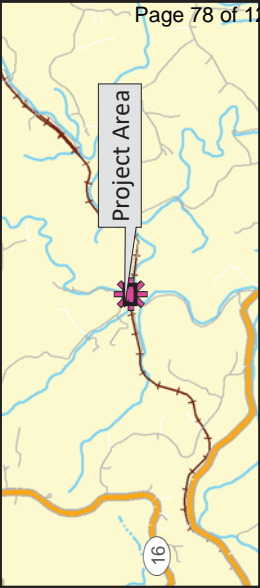


Exhibit 2-1: Proposed Disturbed Limits (Aerial)

- Proposed Disturbed Limits
- Streams
- Railroad

KY-1942 Bridge Replacement
Grant County, KY
Bridge No. 041B00019N
KYTC Item No. 6-40001

0 100 200 Feet



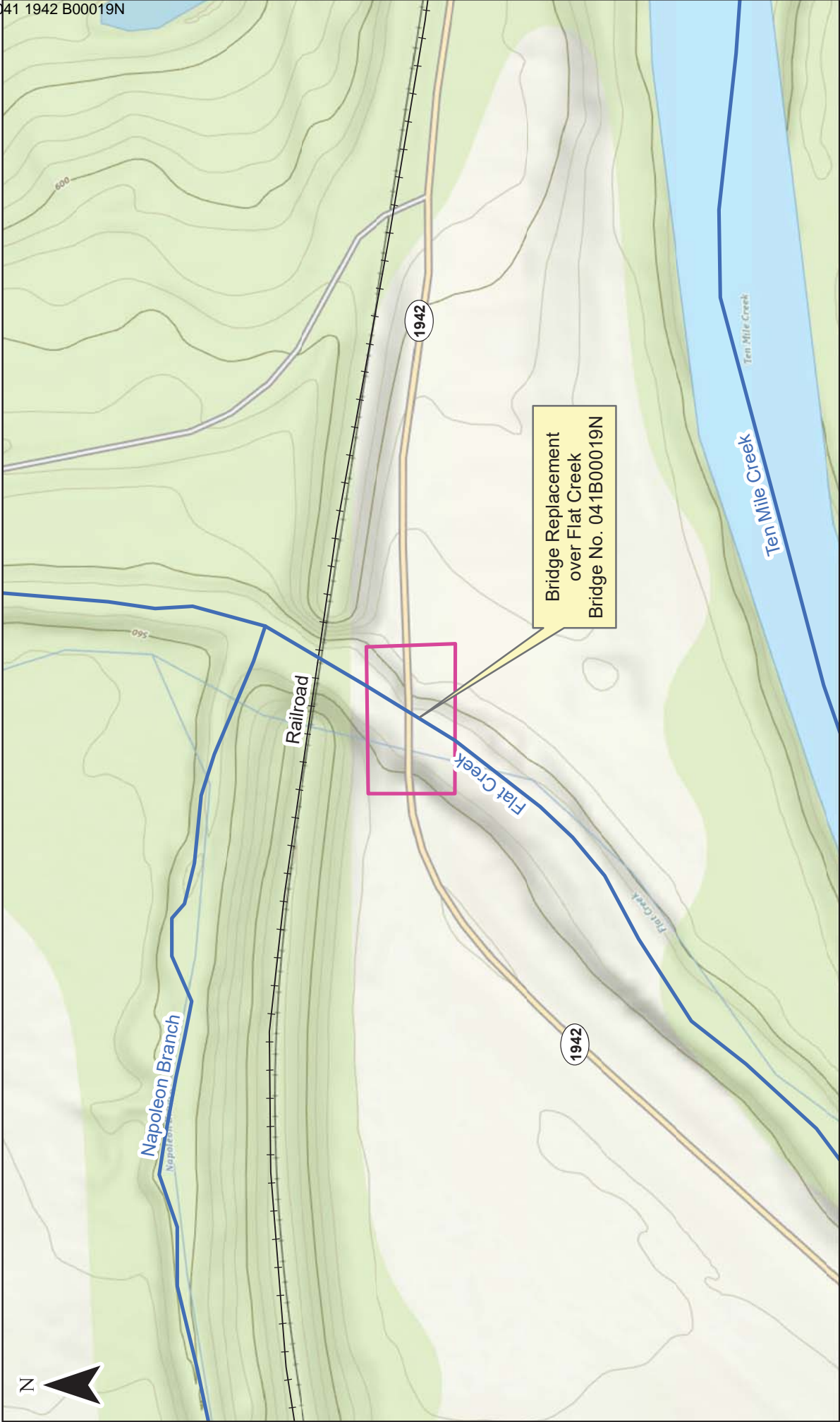


Exhibit 2-2: Proposed Disturbed Limits (Topographic)

KY-1942 Bridge Replacement
Grant County, KY
Bridge No. 041B00019N
KYTC Item No. 6-40001

- Streams
- Proposed Disturbed Limits
- Railroad



APPENDIX B

Coordination

**KENTUCKY HIGHWAY DEPARTMENT
DISTRICT #6 BRIDGES**

Grant County Bridge #041B00019N

KYTC Item No. 6-40001

Cultural Historic Summary

KENTUCKY TRANSPORTATION CABINET

2022

Kentucky Cultural Historic
Program Review Form for Architectural History

KYTC No: 6-40001	Bridge No: 041B00019N
Route: KY-1942	Year Built: 1936
County: Grant	Bridge Project Type: Replacement
KHC Site Check: FY23-5099	Lat/Long: 38.749832/-88.862296

Project Type Listed the FHWA/KYTC/ACHP Section 106 Programmatic Agreement 2019:

- Attachment #2-11. Bridge rehabilitation, reconstruction, or replacement Replacement

Area of Potential Effects defined as a distance of 150-foot from the centerline of the Project in all directions as per SHPO guidance and indicated on the attached maps.

Program Comment Bridge Type: No

Are there Historical Resources within the Project APE (per KHC database): No
NRHP-listed or potentially eligible sites/districts (>50 years): No

Is the bridge eligible for the NRHP: No

Are there Identified Sites in the APE: Yes

Site #	Eligibility	Effect	SHPO Concurrence Signature
1	Not Eligible	N/A	<i>Matt Zagle</i>
2	Not Eligible	N/A	<i>Matt Zagle</i>
3	Undetermined	No Effect	<i>Matt Zagle</i>
4	Not Eligible	N/A	<i>Matt Zagle</i>

Discuss Basis For Finding:

- Photographs: Yes
- Aerial/Topography Maps: Yes
- Other: Fieldwork

POTENTIAL TO AFFECT HISTORIC PROPERTIES (If Adverse complete page 2): No Effect
Historic Context:

ATTACHMENTS:

- Map showing topography, APE, Identified Historic Resources: Yes
- Relevant Photographs: Yes
- KHC Survey Form(s): No
- Project Plans: No

Date of Field Investigation:	11/15/2022	As Determined by:	Evan Christodoulou/CRAI
Date of Desktop Review:	12/12/2022	QA/QC Determined by:	Robert Ball/CRAI

Organization	Name	Title	Date
KYTC DEA:			
KYSHPO:	<i>Matt Zagle</i>	106 Reviewer	1/3/2023

Cultural Historic Project Summary Sheet Grant County Bridge #041B00019N KYTC Item No. 6-40001

1. What the Project includes:

The replacement of KY 1942 over Napoleon Branch (Bridge 041B00019N) will entail complete removal of the existing bridge and construction of a new bridge without load restrictions. The project will replace the bridge in the same location with generally the same geometrics (bridge width, length, hydraulic opening, etc.) to avoid environmental impacts, utility impacts, and minimize the need for new right of way. The bridge will be completely closed to through traffic during construction and existing traffic will be detoured on nearby roads. There will be not be an on-site diversion.

2. Eligibility Recommendations:

The bridge reportedly dates to 1936. It consists of two lanes with a concrete-cast-in-place deck covered in asphalt. The bridge is a slab set on concrete abutments. The bridge exhibits metal guardrails along both sides. The bridge is not associated with any significant events or persons. The bridge superstructure is an undistinguished example of concrete slab, a very common type built in large numbers throughout the state. Thus, the bridge lacks the significance to distinguish it as a notable example of its type. As such, it is recommended not eligible for listing in the National Register of Historic Places (NRHP) under Criterion A, B, or C.

Three additional aboveground resources 50 years of age or older identified in or on parcels within a 150 ft radius of the bridge do not appear to be eligible for listing in the NRHP under Criterion A, B, or C. One resource (cemetery) is undetermined s it was not accessed.

3. Determination of Effect:

Since the bridge and three of the additional aboveground resources are not eligible for listing in the NRHP, the project, as well as the undetermined cemetery is sufficiently far enough away from the bridge that the project will result in no historic properties affected.



FIELD - K220517 (01DECEMBER2022) JMA

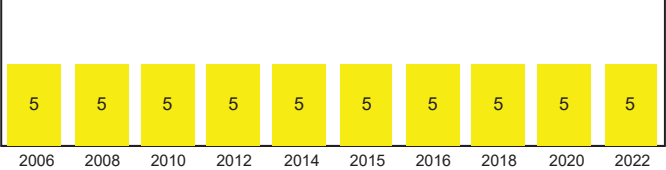
Field Aerial

<u>IDENTIFICATION</u>	
Structure Num (8):	041B00019N
NBI Number:	041B00019N
Structure Name:	—
Location (9):	1.8 MI NOR. JCT KY 467
Carries (7):	KY-1942
Type of Service (42A):	1 Highway
Feature Crossed (6):	NAPOLEON BRANCH
Type of Service (42B):	5 Waterway
Placecode (4):	Not Applicable
County (3):	Grant (041)
State (1):	21 Kentucky
Admin Area:	Inventory
District:	District 6
Latitude (16):	38° 44' 5"
Longitude (17):	84° 44' 59"
Owner (22):	State Highway Agency
Maint. Resp. (21):	State Highway Agency
Year Built (27):	1936
Year Recon (106):	0
<div>Border State (98A): Not Applicable (P)</div> <div>Border Number (99):</div> <div>% Responsibility (98B): -1</div>	

Fair		Heath Index: 82.58	
SubStd: No		SubStd Reason: Not Sub-Standa	
Inspection Type	Freq (92)	Last Insp (93)	Next Insp
Routine	24	7/13/2022	7/13/2024
Element	24	7/13/2022	7/13/2024
Fracture Critical (A)		1/1/1901	1/1/1901
Underwater (B)		8/1/2006	1/1/1901
Special Insp (C)		6/28/2018	1/1/1901

<u>LOAD RATING AND POSTING</u>	
Posting Status(41):	P Posted for load
Posting (70):	0 >39.9% below
Signs Posted Cardinal:	Yes
Signs Posted Non-Cardinal:	Yes
Recmd Date: 5/31/2018	Posted Date:
<div>Required Postings (Tons.)</div> <div>Gross: 22.00</div> <div>Truck Type 1:</div> <div>Truck Type 2:</div> <div>Truck Type 3:</div> <div>Truck Type 4:</div> <div>SUV 5:</div> <div>SUV 6:</div> <div>SUV 7:</div> <div>EV Single Axle:</div> <div>EV Tadem Axle:</div>	
<div>Field Postings (Tons.)</div> <div>Gross: 22.00</div> <div>Truck Type 1</div> <div>Truck Type 2</div> <div>Truck Type 3</div> <div>Truck Type 4</div> <div>SUV 5:</div> <div>SUV 6:</div> <div>SUV 7:</div>	

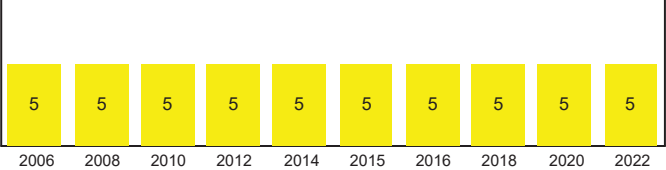
<u>DECK GEOMETRY</u>	
Deck Geometry (68):	2 Intolerable - Replace
Deck Area:	872.00 ft²
Deck Type (107):	1 Concrete-Cast-in-Place
Wearing Surface (108A):	6 Bituminous
Membrane (108B):	0 None
Deck Protection (108C):	None
Approach Roadway width (32):	15.09 ft.
Width Curb to Curb (51):	15.00 ft.
O. to O. Width (52):	17.00 ft.
Curb / Sidewalk Width L (50A):	0.00 ft.
Curb / Sidewalk Width R (50B):	0.00 ft.
Median (33):	0 No median



2006	2008	2010	2012	2014	2015	2016	2018	2020	2022
------	------	------	------	------	------	------	------	------	------

<u>DECK CONDITION</u>	
Deck Rating (58):	5 Fair
Bridge Rail (36A):	0 Substandard
Transition (36B):	0 Substandard
Approach Rail (36C):	0 Substandard
Approach Rail Ends (36D):	0 Substandard

<u>SUPERSTRUCTURE GEOMETRY</u>	
# of Main Spans (45):	2
# of Approach Spans (46):	0
Main Material (43 A):	2 Concrete Continuous
Main Design (43 B):	01 Slab
Max Span Length (48):	24.90 ft.
Structure Length (49):	51.30 ft.
NBIS Length (37):	Long Enough
Temp Structure (103):	Not Applicable (P)
Skew (34):	35°
Structure Flared (35):	0 No flare
Parallel Structure (101):	No bridge exists
Approach Alignment (72):	6 Equal Min Criteria



2006	2008	2010	2012	2014	2015	2016	2018	2020	2022
------	------	------	------	------	------	------	------	------	------

<u>SUPERSTRUCTURE CONDITION</u>	
Superstructure Rating (59):	5 Fair
Structure Evaluation (67):	5 Above Min Tolerable



Bridge Inspection Report

041B00019N

Inspector: Greg Cady

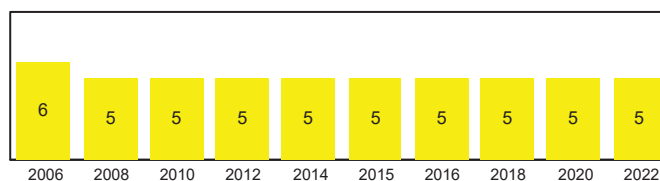
Entered by: GCADY

07/13/2022

Standard (24 months)

SUBSTRUCTURE GEOMETRY

Navigation Control (38): Permit Not Required
Nav Vert Clearance (39):
Nav Horiz Clearance (40):
Pier Protection (111): Not Applicable (P)
Lift Bridge Vertical Clearance (116):
Scour Rating (113): 5 Stable w/in footing
Waterway Adequacy (71): 7 Above Minimum



SUBSTRUCTURE CONDITION

Substructure Rating (60): 5 Fair
Channel Rating (61): 6 Bank Slumping

KYTC FIELDS

Overlay: Yes	Scour Observed: Minor Scour
Overlay Type: Asphalt	Scour Risk : Low Risk
Overlay Thickness: 6.00 in.	Scour Analysis/Assessment : Assessment Performed
Overlay Year: 2020	Scour POA : Not Required
Cross Section: Yes	Scour POA Date :
Cross Section Date: 03/28/2017	Next Cross Section Due Date : 07/13/2026

ROUTE ON STRUCTURE: ELLISTON-MT ZION RD

ROADWAY LOCATION		ROADWAY CLASSIFICATION		CLEARANCES	
Pos Prefix (5A):	Route On Structure	Funct Class (26):	08 Rural min Collector	Vertical (10):	99.99 ft.
Kind of Hwy (5B):	3 State Hwy	Level Service (5C):	1 Mainline	Min Vert Over (53):	99.99 ft.
Route Num (5D):	01942	NHS (104):	0 Not on NHS	Vert Ref (54A):	N Feature not hwy or RR
LRS Route (13A/B):		Defense Hwy (100):	0 Not a STRAHNET hwy	Undrclearnce (54B):	0.00 ft.
Milepost (11):	1.76 mi	Toll Facility (20):	3 On free road	Horizontal (47):	14.76 ft.
Suffix (5E):	0 N/A (NBI)	ADT (29):	138 Cars/Day	Min Lat Left (56):	0.00 ft.
Lanes On (28A):	2	Pct Trucks (109):	0.00%	Min Lat Right (55B):	0.00 ft.
Detour Length (19):	4.97 mi	ADT Year (30):	2020	Horiz Ref (55A):	N Feature not hwy or RR
				Underclearance (69):	N Not applicable (NBI)

Grant County Bridge # 041B00019N
KYTC Item # 6-40001



Bridge deck and railings, looking southeast.



Bridge deck and railings, looking northwest.

Grant County Bridge # 041B00019N
KYTC Item # 6-40001



Side view of bridge, looking west.



South abutment, looking southwest.

Resources within 150 ft APE.

Site 1 (railroad bridge) is located approximately 50 ft north of the bridge. The bridge is a poured, reinforced concrete arch that carries the railroad over Napoleon Branch. The base of the bridge exhibits new concrete blocks. As a common example of a concrete railroad bridge with recent repairs, it is not eligible for listing in the NRHP under Criterion A, B, or C.

Site 2 is a residence, detached garage, and outbuildings located approximately 150 ft east of the bridge. Site 2 contains a one-story, three-bay (w/d/w), front-gable, residence. The building is topped by a metal panel roof, clad in vinyl siding, and rests atop a foundation that has stone applied to it. The façade features a single-leaf entry sheltered beneath a three-fourths width, shed roof porch. The shed roof is supported by square posts. Windows throughout the residence are one-over-one, double-hung, vinyl sashes. The building first appears on an aerial photograph from 1949 and likely dates to between 1925 and 1950. The residence at Site 2 appears to be a common example of an early-twentieth century residence and is not eligible for listing in the NRHP under Criterion A, B, or C.

The outbuilding is a frame shed topped by a shed roof and is clad in a mixture of metal panels and dates to between 1985 and 1997. The detached garage is a modern metal building topped by a side-gable roof. The building dates to between 1998-2003.

Site 3 is a cemetery located approximately 115 ft south of the bridge. The cemetery contains at least eight marked graves, several with large headstones, and sits on a rise with mature trees along its border. The cemetery does not appear on any mapping. As it was not accessed, the cemetery has an undetermined status.

Site 4 is a barn located approximately 600 ft west of the bridge. It is topped by a front-gable sheathed in metal panes and clad in vertical boards. The barn contains a central aisle with two, hinged doors on the east and west elevations. The barn first appears on an aerial photograph from 1949 and likely dates to between 1925 and 1950. The barn at Site 4 appears to be a common example of an early-twentieth century transverse frame barn and is not eligible for listing in the NRHP under Criterion A, B, or C.

Site 1



Railroad bridge, looking north.

Site 2



Façade and west elevation of residence, looking east-southeast.



Façade and east elevation of residence, looking southwest.

Site 2 cont.



Garage, looking southwest.



Outbuilding, looking southeast.

Site 3



Cemetery, looking south.

Site 4



Barn, looking west-northwest.



ANDY BESHEAR
GOVERNOR

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL
THE STATE HISTORIC PRESERVATION OFFICE

MICHAEL E. BERRY
SECRETARY

JACQUELINE COLEMAN
LT. GOVERNOR

410 HIGH STREET
FRANKFORT, KENTUCKY 40601
(502) 564-7005
www.heritage.ky.gov

CRAIG A. POTTS
EXECUTIVE DIRECTOR &
STATE HISTORIC PRESERVATION OFFICER

February 14, 2023

Mr. Daniel R. Peake, Director
Division of Environmental Analysis
Kentucky Transportation Cabinet
200 Mero Street
Frankfort, Kentucky 40602

Re: *Phase I Archaeological Survey for the Replacement of the KY 1942 (Elliston-Mount Zion Road) Over Flat Creek (041B00019N) Bridge in Grant County, Kentucky.* By: Anne Bader
Kentucky Bridges Program
KYTC Item # 6-40001

Dear Mr. Peake,

Thank you for your recent digital submission of an archaeological report pertaining to the above-referenced bridge replacement. We understand that the Federal Highway Administration is the lead federal agency for this undertaking. One archaeological site (15Gr74) was identified within the area of potential effects (APE) during this investigation. A late nineteenth-century rectangular cemetery (the Elliston Cemetery) was also identified during investigation within the southeast quadrant just outside the project APE.

Site 15Gr74 was documented as a multicomponent precontact occupation and historic farmstead with a cemetery. Site boundaries for site 15Gr74 extend beyond the APE. The portion of the site within the APE is ineligible for listing in the National Register of Historic Places (NRHP). The portion of site 15Gr74 beyond the APE remains unassessed.

The Elliston Cemetery was documented as a late nineteenth century rectangular cemetery and falls within the southern portion of site 15Gr74 just outside the project APE. The Elliston Cemetery remain unassessed for NRHP eligibility. The author recommends avoidance of the Elliston Cemetery during project activities.

The author recommends *No Historic Properties Affected* for these undertakings as long as the Elliston Cemetery is to be avoided during project activity. We concur with these recommendations and accept this report without revision.

In the unlikely event that human remains are found during construction for this project, work should cease immediately, and the county coroner and the Kentucky Heritage Council should be contacted. Should project plans change or should there be any future concerns or questions regarding cultural resources in the vicinity of this project area, please do not hesitate to contact Stephanie Dooley of my staff via email at stephanie.dooley@ky.gov.

Sincerely,



Craig A. Potts,
Executive Director and
State Historic Preservation Officer

KHC # 230203

cp: sd

e-cc: Michael Leathers (HMB), Anne Bader (CIA), Phil Mink (OSA)



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
Phone: (502) 695-0468 Fax: (502) 695-1024

In Reply Refer To:
Project Code: 2022-0083826
Project Name: Grant County - 6-40001, KY-1942 Bridge Replacement

September 09, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

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(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/eo-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

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Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
(502) 695-0468

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Project Summary

Project Code: 2022-0083826
Project Name: Grant County - 6-40001, KY-1942 Bridge Replacement
Project Type: Bridge - Replacement
Project Description: This project consists of improving KY-1942 by replacing a structurally deficient bridge east of Glencoe, Kentucky near the intersection of KY-1942 and Elliston-Napoleon Road.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.73480275,-84.74973384432657,14z>



Counties: Grant County, Kentucky

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Endangered Species Act Species

There is a total of 14 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 12 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.
-

Mammals

NAME	STATUS
<p>Gray Bat <i>Myotis grisescens</i></p> <p>No critical habitat has been designated for this species.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none">▪ The project area includes potential gray bat habitat. <p>Species profile: https://ecos.fws.gov/ecp/species/6329</p> <p>General project design guidelines:</p> <p>https://ipac.ecosphere.fws.gov/project/PBLEENG2U5BDFGUEIXP4B5R6KM/documents/generated/6422.pdf</p>	Endangered
<p>Indiana Bat <i>Myotis sodalis</i></p> <p>There is final critical habitat for this species. The location of the critical habitat is not available.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none">▪ The project area includes 'potential' habitat. All activities in this location should consider possible effects to this species. <p>Species profile: https://ecos.fws.gov/ecp/species/5949</p> <p>General project design guidelines:</p> <p>https://ipac.ecosphere.fws.gov/project/PBLEENG2U5BDFGUEIXP4B5R6KM/documents/generated/6422.pdf</p>	Endangered
<p>Northern Long-eared Bat <i>Myotis septentrionalis</i></p> <p>No critical habitat has been designated for this species.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none">▪ The specified area includes areas in which incidental take would not be prohibited under the 4(d) rule. For reporting purposes, please use the "streamlined consultation form," linked to in the "general project design guidelines" for the species. <p>Species profile: https://ecos.fws.gov/ecp/species/9045</p> <p>General project design guidelines:</p> <p>https://ipac.ecosphere.fws.gov/project/PBLEENG2U5BDFGUEIXP4B5R6KM/documents/generated/6422.pdf</p>	Threatened

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Clams

NAME	STATUS
<p>Clubshell <i>Pleurobema clava</i></p> <p>Population: Wherever found; Except where listed as Experimental Populations</p> <p>No critical habitat has been designated for this species.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none">▪ The species may be affected by projects that significantly impact the Ohio River.▪ The species may be affected by projects that significantly impact the Kentucky River mainstem and/or any of its following tributaries: Dix River, Eagle Creek, Elkhorn Creek, North Fork Elkhorn Creek, and South Fork Kentucky River. <p>Species profile: https://ecos.fws.gov/ecp/species/3789</p> <p>General project design guidelines: https://ipac.ecosphere.fws.gov/project/PBLEENG2U5BDFGUEIXP4B5R6KM/documents/generated/5639.pdf</p>	Endangered
<p>Fanshell <i>Cyprogenia stegaria</i></p> <p>No critical habitat has been designated for this species.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none">▪ The species may be affected by projects that significantly impact the Ohio River.▪ The species may be affected by projects that significantly impact the Kentucky River mainstem and/or any of its following tributaries: Dix River, Eagle Creek, Elkhorn Creek, North Fork Elkhorn Creek, and South Fork Kentucky River. <p>Species profile: https://ecos.fws.gov/ecp/species/4822</p> <p>General project design guidelines: https://ipac.ecosphere.fws.gov/project/PBLEENG2U5BDFGUEIXP4B5R6KM/documents/generated/5639.pdf</p>	Endangered
<p>Northern Riffleshell <i>Epioblasma rangiana</i></p> <p>No critical habitat has been designated for this species.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none">▪ The species may be affected by projects that significantly impact, directly or indirectly, the following rivers: Green, Licking, or Ohio. <p>Species profile: https://ecos.fws.gov/ecp/species/527</p> <p>General project design guidelines: https://ipac.ecosphere.fws.gov/project/PBLEENG2U5BDFGUEIXP4B5R6KM/documents/generated/5639.pdf</p>	Endangered
<p>Orangefoot Pimpleback (pearlymussel) <i>Plethobasus cooperianus</i></p> <p>No critical habitat has been designated for this species.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none">▪ The species may be affected by projects that significantly impact the Ohio River. <p>Species profile: https://ecos.fws.gov/ecp/species/1132</p> <p>General project design guidelines: https://ipac.ecosphere.fws.gov/project/PBLEENG2U5BDFGUEIXP4B5R6KM/documents/generated/5639.pdf</p>	Endangered
<p>Pink Mucket (pearlymussel) <i>Lampsilis abrupta</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/7829</p> <p>General project design guidelines: https://ipac.ecosphere.fws.gov/project/PBLEENG2U5BDFGUEIXP4B5R6KM/documents/generated/5639.pdf</p>	Endangered

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NAME	STATUS
<p>Rabbitsfoot <i>Quadrula cylindrica cylindrica</i></p> <p>There is final critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none">▪ The species may be affected by projects that significantly impact the Ohio River.▪ The species may be affected by projects that significantly impact the Kentucky River mainstem and/or any of its following tributaries: Dix River, Eagle Creek, Elkhorn Creek, North Fork Elkhorn Creek, and South Fork Kentucky River. <p>Species profile: https://ecos.fws.gov/ecp/species/5165 General project design guidelines: https://ipac.ecosphere.fws.gov/project/PBLEENG2U5BDFGUEIXP4B5R6KM/documents/generated/5639.pdf</p>	<p>Threatened</p>
<p>Ring Pink (mussel) <i>Obovaria retusa</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none">▪ The species may be affected by projects that significantly impact the Ohio River. <p>Species profile: https://ecos.fws.gov/ecp/species/4128 General project design guidelines: https://ipac.ecosphere.fws.gov/project/PBLEENG2U5BDFGUEIXP4B5R6KM/documents/generated/5639.pdf</p>	<p>Endangered</p>
<p>Rough Pigtoe <i>Pleurobema plenum</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none">▪ The species may be affected by projects that significantly impact the Ohio River. <p>Species profile: https://ecos.fws.gov/ecp/species/6894 General project design guidelines: https://ipac.ecosphere.fws.gov/project/PBLEENG2U5BDFGUEIXP4B5R6KM/documents/generated/5639.pdf</p>	<p>Endangered</p>
<p>Sheepnose Mussel <i>Plethobasus cyphus</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none">▪ The species may be affected by projects that significantly impact the Ohio River.▪ The species may be affected by projects that significantly impact the Kentucky River mainstem and/or any of its following tributaries: Dix River, Eagle Creek, Elkhorn Creek, North Fork Elkhorn Creek, and South Fork Kentucky River. <p>Species profile: https://ecos.fws.gov/ecp/species/6903 General project design guidelines: https://ipac.ecosphere.fws.gov/project/PBLEENG2U5BDFGUEIXP4B5R6KM/documents/generated/5639.pdf</p>	<p>Endangered</p>
<p>Spectaclecase (mussel) <i>Cumberlandia monodonta</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none">▪ The species may be affected by projects that significantly impact the Ohio River. <p>Species profile: https://ecos.fws.gov/ecp/species/7867 General project design guidelines: https://ipac.ecosphere.fws.gov/project/PBLEENG2U5BDFGUEIXP4B5R6KM/documents/generated/5639.pdf</p>	<p>Endangered</p>

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Kentucky Transportation Cabinet
Name: Kyle Sams
Address: 3 HMB Circle
City: Frankfort
State: KY
Zip: 40601
Email ksams@hmbpe.com
Phone: 5026959800

BATS IN BRIDGES DATASHEET


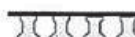


KYTC Structure ID 041B00019N **KYTC Item No** 6-40001





Bridge Location: KY 1942 (Elliston Mt Zion Rd) over Flat Creek

County: Grant **Lat:** 38.734601 **Long:** 84.74992

Date: 8/10/2022 **Time of Survey:** 1:00 PM **Investigator Name(s):** Steve Rice, Randall Thomas

Bridge Type: (check one)

- ☐ Parallel Box Beam 
- ☐ Pre-stressed Girder 
- ☐ Cast in Place 
- ☐ Culvert – Box 

- ☐ Steel I-beam 
- ☒ Flat Slab / Box 
- ☐ Trapezoidal Box 
- ☐ Culvert – Pipe/Round 

☐ Other: _____

Underdeck Material:

- ☒ Concrete
- ☐ Corrugated Steel
- ☐ Other: _____

Road Type: (check one) ☐ Interstate ☐ U.S. Highway ☒ State Road ☐ County Road

Surrounding Habitat: (check all that apply)

☒ Residential ☐ Row Crop ☐ Commercial ☐ Woodland ☒ Grassland ☒ Pasture ☒ Riparian ☐ Mixed ☐ Wetland

Conditions Under Bridge: (check all that apply)

☒ Bare ground /sediment ☐ Concrete ☐ Rip rap ☒ Flowing water ☒ Standing water

☒ Open vegetation (not obstructing flight path) ☐ Closed vegetation (may obstruct flight path)

☒ Two lane road ☐ Four (or more) lane highway ☐ Dirt road ☐ Railroad

☐ Evidence of superstructure flooding **Bridge height above water:** 15 ft

Bat indicators: (check all that apply) ☐ Visual ☐ Smell ☐ Sound ☐ Staining ☐ Guano ☒ None

Use intensity: (check one) ☐ Minor (scattered, individual guano pellets and/or few small areas of staining covering <1 ft each - few bats or temporary usage)

☐ Major (guano piles and/or large areas of staining covering >1 ft each – semi permanent colony)

Bats Present: ☐ YES ☒ NO

BATS IN BRIDGES DATASHEET

Species Present (record number of individuals if known)

<input type="text"/>	Myotis septentrionalis (Northern long-eared)	<input type="text"/>	Lasiurus noctivagans (Silver-haired)
<input type="text"/>	Myotis sodalis (Indiana)	<input type="text"/>	Perimyotis subflavus (Tri-colored)
<input type="text"/>	Myotis leibii (Eastern small-footed)	<input type="text"/>	Eptesicus fuscus (Big brown)
<input type="text"/>	Myotis lucifugus (Little brown)	<input type="text"/>	Nycticeius humeralis (Evening)
<input type="text"/>	Myotis grisescens (Gray)	<input type="text"/>	Tadarida brasiliensis (Braz. free-tailed)
<input type="text"/>	Myotis austroriparius (Southeastern)	<input type="text"/>	Corynorhinus t. townsendii (Virginia)
<input type="text"/>	Lasiurus cinereus (Hoary)	<input type="text"/>	Corynorhinus rafinesquii (Rafinesque's)
<input type="text"/>	Lasiurus borealis (Eastern red)	<input type="text"/>	UNKNOWN
<input type="text"/>	Lasiurus seminolus (Seminole)	<input type="text"/>	

Roost description (If known, check all that apply): ☐ Day Roost ☐ Nursery Roost ☐ Night Roost ☐ Unknown

Number of roosts

Roost feature: (check all that apply)

☐ Crack/crevice/expansion joint: underside of bridge ☐ Crack/crevice/expansion joint: top side of bridge

☐ Plugged drain ☐ Under/along the main bridge structure ☐ Rail ☐ Other:

Human disturbance or traffic under bridge or at structure? ☐ High ☐ Low ☒ None

Evidence of bats using bird nests? ☐ Yes ☒ No (if yes, please describe and photograph nest location)

Areas Inspected: (check all that apply)

☐ Vertical surfaces on I-beams ☒ Vertical surfaces between concrete end walls and bridge deck

☐ Expansion joints ☒ Rough surfaces ☒ Guardrails ☒ Crevices ☐ Other:

Areas NOT Inspected because of safety or inaccessibility:

Additional Comments / Sketch:

Kentucky Transportation
Cabinet Project:

N O T I C E

**DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
NATIONWIDE SECTION 404 PERMIT AUTHORIZATION**

**DEPARTMENT FOR ENVIRONMENTAL PROTECTION
KENTUCKY DIVISION OF WATER
SECTION 401 WATER QUALITY CERTIFICATION**

PROJECT DESCRIPTION:

The Sections 404 and 401 activities for this project have previously been permitted under the authority of the Department of the Army, Section 404 Nationwide Permit Number 3, *Maintenance Projects* (with additional *Kentucky Regional General Conditions*), and the Kentucky Division of Water, Section 401 General Water Quality Certification. For these authorized permits to be valid, the attached conditions must be followed. The contractor shall post a copy of this Nationwide Permit Number 3 and General Water Quality Certification in a conspicuous location at the project site, with unencumbered public access, for the duration of construction and comply with the general conditions required.

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

STANDARD SPECIFICATIONS

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2019* and *Standard Drawings, Edition of 2020*.

SUPPLEMENTAL SPECIFICATIONS

The contractor shall use the Supplemental Specifications that are effective at the time of letting. The Supplemental Specifications can be found at the following link:
<http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx>

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

**TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS**

**LABOR AND WAGE REQUIREMENTS
APPLICABLE TO OTHER THAN FEDERAL-AID SYSTEM PROJECTS**

- I. Application
- II. Nondiscrimination of Employees (KRS 344)

I. APPLICATION

1. These contract provisions shall apply to all work performed on the contract by the contractor with his own organization and with the assistance of workmen under his immediate superintendence and to all work performed on the contract by piecework, station work or by subcontract. The contractor's organization shall be construed to include only workmen employed and paid directly by the contractor and equipment owned or rented by him, with or without operators.

2. The contractor shall insert in each of his subcontracts all of the stipulations contained in these Required Provisions and such other stipulations as may be required.

3. A breach of any of the stipulations contained in these Required Provisions may be grounds for termination of the contract.

3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

II. NONDISCRIMINATION OF EMPLOYEES

**AN ACT OF THE KENTUCKY
GENERAL ASSEMBLY TO PREVENT
DISCRIMINATION IN EMPLOYMENT
KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972**

The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows:

1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (forty and above); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age forty (40) and over. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, except that such a notice or advertisement may indicate a preference, limitation, or specification based on religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, when religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, is a bona fide occupational qualification for employment.

EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

No present or former public servant shall, within six (6) months following termination of his office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

A former public servant shall not represent a person or business before a state agency in a matter in which the former public servant was directly involved during the last thirty-six (36) months of his tenure, for a period of one (1) year after the latter of:

- a) The date of leaving office or termination of employment; or
- b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 1025 Capital Center Drive, Suite 104, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: May 23, 2022

Kentucky Equal Employment Opportunity Act of 1978

The requirements of the Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) shall apply to this Contract. The apparent low Bidder will be required to submit EEO forms to the Division of Construction Procurement, which will then forward to the Finance and Administration Cabinet for review and approval. No award will become effective until all forms are submitted and EEO/CC has certified compliance. The required EEO forms are as follows:

- EEO-1: Employer Information Report
- Affidavit of Intent to Comply
- Employee Data Sheet
- Subcontractor Report

These forms are available on the Finance and Administration's web page under ***Vendor Information, Standard Attachments and General Terms*** at the following address:
<https://www.eProcurement.ky.gov>.

Bidders currently certified as being in compliance by the Finance and Administration Cabinet may submit a copy of their approval letter in lieu of the referenced EEO forms.

For questions or assistance please contact the Finance and Administration Cabinet by email at **finance.contractcompliance@ky.gov** or by phone at 502-564-2874.

EMPLOYEE RIGHTS UNDER THE FAIR LABOR STANDARDS ACT

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

FEDERAL MINIMUM WAGE

\$7.25

 PER HOUR

BEGINNING JULY 24, 2009

OVERTIME PAY

At least 1½ times your regular rate of pay for all hours worked over 40 in a workweek.

CHILD LABOR

An employee must be at least **16** years old to work in most non-farm jobs and at least **18** to work in non-farm jobs declared hazardous by the Secretary of Labor.

Youths **14** and **15** years old may work outside school hours in various non-manufacturing, non-mining, non-hazardous jobs under the following conditions:

No more than

- **3** hours on a school day or **18** hours in a school week;
- **8** hours on a non-school day or **40** hours in a non-school week.

Also, work may not begin before **7 a.m.** or end after **7 p.m.**, except from June 1 through Labor Day, when evening hours are extended to **9 p.m.** Different rules apply in agricultural employment.

TIP CREDIT

Employers of "tipped employees" must pay a cash wage of at least \$2.13 per hour if they claim a tip credit against their minimum wage obligation. If an employee's tips combined with the employer's cash wage of at least \$2.13 per hour do not equal the minimum hourly wage, the employer must make up the difference. Certain other conditions must also be met.

ENFORCEMENT

The Department of Labor may recover back wages either administratively or through court action, for the employees that have been underpaid in violation of the law. Violations may result in civil or criminal action.

Employers may be assessed civil money penalties of up to \$1,100 for each willful or repeated violation of the minimum wage or overtime pay provisions of the law and up to \$11,000 for each employee who is the subject of a violation of the Act's child labor provisions. In addition, a civil money penalty of up to \$50,000 may be assessed for each child labor violation that causes the death or serious injury of any minor employee, and such assessments may be doubled, up to \$100,000, when the violations are determined to be willful or repeated. The law also prohibits discriminating against or discharging workers who file a complaint or participate in any proceeding under the Act.

ADDITIONAL INFORMATION

- Certain occupations and establishments are exempt from the minimum wage and/or overtime pay provisions.
- Special provisions apply to workers in American Samoa and the Commonwealth of the Northern Mariana Islands.
- Some state laws provide greater employee protections; employers must comply with both.
- The law requires employers to display this poster where employees can readily see it.
- Employees under 20 years of age may be paid \$4.25 per hour during their first 90 consecutive calendar days of employment with an employer.
- Certain full-time students, student learners, apprentices, and workers with disabilities may be paid less than the minimum wage under special certificates issued by the Department of Labor.

For additional information:



1-866-4-USWAGE

(1-866-487-9243)

TTY: 1-877-889-5627



WWW.WAGEHOUR.DOL.GOV

U.S. Department of Labor | Wage and Hour Division

PART IV

INSURANCE

Refer to
Kentucky Standard Specifications for Road and Bridge Construction,
current edition

PART V

BID ITEMS

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00020		TRAFFIC BOUND BASE	29.00	TON		\$	
0020	02585		EDGE KEY	29.00	LF		\$	
0030	03304		BRIDGE OVERLAY APPROACH PAVEMENT	305.00	SQYD		\$	
0040	20550ND		SAWCUT PAVEMENT	60.00	LF		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0050	01987		DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	10.00	EACH		\$	
0060	02223		GRANULAR EMBANKMENT	205.00	CUYD		\$	
0070	02351		GUARDRAIL-STEEL W BEAM-S FACE	162.50	LF		\$	
0080	02360		GUARDRAIL TERMINAL SECTION NO 1	1.00	EACH		\$	
0090	02371		GUARDRAIL END TREATMENT TYPE 7	3.00	EACH		\$	
0100	02562		TEMPORARY SIGNS	200.00	SQFT		\$	
0110	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0120	02726		STAKING	1.00	LS		\$	
0130	02731		REMOVE STRUCTURE	1.00	LS		\$	
0140	21415ND		EROSION CONTROL	1.00	LS		\$	

Section: 0003 - BRIDGE - OVER NAPOLEON BRANCH

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0150	02231		STRUCTURE GRANULAR BACKFILL	250.00	CUYD		\$	
0160	03299		ARMORED EDGE FOR CONCRETE	38.40	LF		\$	
0170	08002		STRUCTURE EXCAV-SOLID ROCK	98.00	CUYD		\$	
0180	08003		FOUNDATION PREPARATION	1.00	LS		\$	
0190	08019		CYCLOPEAN STONE RIP RAP	141.00	TON		\$	
0200	08033		TEST PILES	50.00	LF		\$	
0210	08039		PRE-DRILLING FOR PILES	200.00	LF		\$	
0220	08052		PILES-STEEL HP14X117	389.00	LF		\$	
0230	08100		CONCRETE-CLASS A	201.60	CUYD		\$	
0240	08104		CONCRETE-CLASS AA	52.80	CUYD		\$	
0250	08151		STEEL REINFORCEMENT-EPOXY COATED	22,280.00	LB		\$	
0260	08663		PRECAST PC BOX BEAM CB21-48	280.00	LF		\$	
0270	23378EC		CONCRETE SEALING	3,139.00	SQFT		\$	
0280	25017ED		RAIL SYSTEM SIDE MOUNTED MGS	126.00	LF		\$	
0290	26233EC		MOBILIZATION FOR CONCRETE SURF TREATMENT	1.00	LS		\$	

Section: 0004 - WATERLINE RELOCATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0300	01314		PLUG PIPE	2.00	EACH		\$	

Report Date 7/18/24

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0310	14004		W DIRECTIONAL BORE	210.00	LF		\$	
0320	14036		W PIPE DUCTILE IRON 06 INCH	50.00	LF		\$	
0330	14047		W PIPE DCTL IRON RSTRND JOINT 06 IN	6.00	LF		\$	
0340	14059		W PIPE PVC 06 INCH	40.00	LF		\$	
0350	14069		W PIPE POLYETHYLENE/PLASTIC 06 INCH	210.00	LF		\$	
0360	14094		W TIE-IN 06 INCH	2.00	EACH		\$	
0370	14117		W VALVE CUT-IN 06 INCH	1.00	EACH		\$	
0380	14136		W PRESSURE REDUCING VALVE 08 INCH	1.00	EACH		\$	
0390	14177		W VALVE BOX REMOVE	1.00	EACH		\$	

Section: 0005 - DEMOBILIZATION AND/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0400	02569		DEMOBILIZATION	1.00	LS		\$	