



**CALL NO. 202**

**CONTRACT ID. 241108**

**WARREN COUNTY**

**FED/STATE PROJECT NUMBER 114GR24D008**

**DESCRIPTION KY 185**

**WORK TYPE GRADE & DRAIN WITH ASPHALT SURFACE**

**PRIMARY COMPLETION DATE 7/31/2026**

**LETTING DATE: July 18,2024**

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME July 18,2024. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

**PLANS AVAILABLE FOR THIS PROJECT.**

**DBE CERTIFICATION REQUIRED - 11%**

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

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**PART I**  
**SCOPE OF WORK**

## ADMINISTRATIVE DISTRICT - 03

**CONTRACT ID - 241108**

**114GR24D008**

**COUNTY - WARREN**

**PCN - 0311401852401**

**HSIP 5074(010)**

STATE ROUTE 185 (KY 185) (MP 8.250) FROM 0.257 MILE SOUTH OF KY 1320 EXTENDING NORTH TO 0.099 MILE NORTH OF JACK SIMMONS ROAD (MP 9.508), A DISTANCE OF 01.26 MILES.GRADE & DRAIN WITH ASPHALT SURFACE SYP NO. 03-09024.00.

GEOGRAPHIC COORDINATES LATITUDE 37:07:02.00 LONGITUDE 86:25:23.00

ADT 2,836

**PCN - DE11401852408**

**STP 5074 (008)**

KY 185 KY 185 - SPOT #1, A DISTANCE OF 01.86 MILES.GRADE & DRAIN WITH ASPHALT SURFACE SYP NO. 03-00110.30.

GEOGRAPHIC COORDINATES LATITUDE 37:07:06.00 LONGITUDE 86:24:21.00

ADT 5,500

**COMPLETION DATE(S):**

COMPLETED BY 07/31/2026

APPLIES TO ENTIRE CONTRACT



## **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](http://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](mailto: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](http://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

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

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

10/26/2023

**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.**

### **FEDERAL CONTRACT NOTES**

The Kentucky Department of Highways, in accordance with the Regulations of the United States Department of Transportation 23 CFR 635.112 (h), hereby notifies all bidders that failure by a bidder to comply with all applicable sections of the current Kentucky Standard Specifications, including, but not limited to the following, may result in a bid not being considered responsive and thus not eligible to be considered for award:

- |                                |  |
|--------------------------------|--|
| 102.02 Current Rating          | 102.08 Preparation and Delivery of Proposals |
| 102.13 Irregular Bid Proposals | 102.14 Disqualification of Bidders           |
| 102.09 Proposal Guaranty       |  |

### **CIVIL RIGHTS ACT OF 1964**

The Kentucky Transportation Cabinet, Department of Highways, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, sex, age (over 40), religion, sexual orientation, gender identity, veteran status, disability, income- level, or Limited English Proficiency (LEP) in consideration for an award.

### **NOTICE TO ALL BIDDERS**

To report bid rigging activities call: 1-800-424-9071.

The U.S. Department of Transportation (DOT) operates the above toll-free “hotline” Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the “hotline” to report such activities.

The “hotline” is part of the DOT’s continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

### **SECOND TIER SUBCONTRACTS**

Second tier subcontracts are acceptable per Section 108.01 of the Standard Specifications for Road and Bridge Construction. Sub-Contractors fulfilling a disadvantaged business enterprise goal on a project may enter into a 2<sup>nd</sup> tier subcontract with a Non-DBE Subcontractor. However, in this instance, none of the work subcontracted to the Non-DBE Contractor will count toward fulfilling the established Disadvantaged Goal for the project.

### **DISADVANTAGED BUSINESS ENTERPRISE PROGRAM**

It is the policy of the Kentucky Transportation Cabinet (“the Cabinet”) that Disadvantaged Business Enterprises (“DBE”) shall have the opportunity to participate in the performance of highway construction projects financed in whole or in part by Federal Funds in order to create a level playing field for all businesses who wish to contract with the Cabinet. To that end, the Cabinet will comply with the regulations found in 49 CFR Part 26, and the definitions and requirements contained therein shall be adopted as if set out verbatim herein.

The Cabinet, contractors, subcontractors, and sub-recipients shall not discriminate on the basis of race, color, national origin, or sex in the performance of work performed pursuant to Cabinet contracts. The contractor shall carry out applicable requirements of 49 CFR 26 in the award and administration of federally assisted highway construction projects. The contractor will include this provision in all its subcontracts and supply agreements pertaining to contracts with the Cabinet.

Failure by the contractor to carry out these requirements is a material breach of its contract with the Cabinet, which may result in the termination of the contract or such other remedy as the Cabinet deems necessary.

### **DBE GOAL**

The Disadvantaged Business Enterprise (DBE) goal established for this contract, as listed on the front page of the proposal, is the percentage of the total value of the contract.

The contractor shall exercise all necessary and reasonable steps to ensure that Disadvantaged Business Enterprises participate in a least the percent of the contract as set forth above as goals for this contract.

### **OBLIGATION OF CONTRACTORS**

Each contractor prequalified to perform work on Cabinet projects shall designate and make known to the Cabinet a liaison officer who is assigned the responsibility of effectively administering and promoting an active program for utilization of DBEs.

If a formal goal has not been designated for the contract, all contractors are encouraged to consider DBEs for subcontract work as well as for the supply of material and services needed to perform this work.

Contractors are encouraged to use the services of banks owned and controlled by minorities and women.



### **CERTIFICATION OF CONTRACT GOAL**

Contractors shall include the following certification in bids for projects for which a DBE goal has been established. BIDS SUBMITTED WHICH DO NOT INCLUDE CERTIFICATION OF DBE PARTICIPATION WILL NOT BE ACCEPTED. These bids will not be considered for award by the Cabinet and they will be returned to the bidder.

“The bidder certifies that it has secured participation by Disadvantaged Business Enterprises (“DBE”) in the amount of \_\_\_\_\_ percent of the total value of this contract and that the DBE participation is in compliance with the requirements of 49 CFR 26 and the policies of the Kentucky Transportation Cabinet pertaining to the DBE Program.”

**The certification statement is located in the electronic bid file. All contractors must certify their DBE participation on that page. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted.**

### **DBE PARTICIPATION PLAN**

Lowest responsive bidders must submit the *DBE Plan/ Subcontractor Request*, form TC 14-35 DBE, within **5** days of the letting. This is necessary before the Awards Committee will review and make a recommendation. **The project will not be considered for award prior to submission and approval of the apparent low bidder’s DBE Plan/Subcontractor Request.**

The DBE Participation Plan shall include the following:

1. Name and address of DBE Subcontractor(s) and/or supplier(s) intended to be used in the proposed project;
2. Description of the work each is to perform including the work item, unit, quantity, unit price and total amount of the work to be performed by the individual DBE. The Proposal Line Number, Category Number, and the Project Line Number can be found in the “material listing” on the Construction Procurement website under the specific letting;
3. The dollar value of each proposed DBE subcontract and the percentage of total project contract value this represents. DBE participation may be counted as follows:
  - a) If DBE suppliers and manufactures assume actual and contractual responsibility, the dollar value of materials to be furnished will be counted toward the goal as follows:
    - The entire expenditure paid to a DBE manufacturer;
    - 60 percent of expenditures to DBE suppliers that are not manufacturers provided the supplier is a regular dealer in the product involved. A regular dealer must be engaged in, as its principal business and in its own name, the sale of products to the public, maintain an inventory and own and operate distribution equipment; and
    - The amount of fees or commissions charged by the DBE firms for a bona fide service, such as professional, technical, consultant, or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, supplies, delivery of materials and supplies or for furnishing bonds, or insurance, providing such fees or commissions are determined to be reasonable and customary.
  - b) The dollar value of services provided by DBEs such as quality control testing, equipment repair and maintenance, engineering, staking, etc.;

- c) The dollar value of joint ventures. DBE credit for joint ventures will be limited to the dollar amount of the work actually performed by the DBE in the joint venture;
4. Written and signed documentation of the bidder's commitment to use a DBE contractor whose participation is being utilized to meet the DBE goal; and
5. Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment.

**AFTER PROJECT AWARD AND BEFORE NOTICE TO PROCEED/WORK ORDER IS ISSUED (SEE SECTION 103.06, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION)**

Prime Contractors awarded a federally funded project with a DBE Goal greater than zero will be required to submit DBE Subcontract Agreement Form, TC 14-36, along with the attached FHWA 1273 and Certificate of Liability Insurance for each DBE Firm submitted as part of the previously approved DBE Utilization Plan (TC 14-35). A signed quote or purchase order shall be attached when the DBE subcontractor is a material supplier or broker.

The Certificate of Liability Insurance submitted must meet the requirements outlined in Section 107.18 of the Standard Specifications for Road and Bridge Construction.

Changes to **APPROVED** DBE Participation Plans must be approved by the Cabinet. The Cabinet may consider extenuating circumstances including, but not limited to, changes in the nature or scope of the project, the inability or unwillingness of a DBE to perform the work in accordance with the bid, and/or other circumstances beyond the control of the prime contractor.

**CONSIDERATION OF GOOD FAITH EFFORTS REQUESTS**

If the DBE participation submitted in the bid by the apparent lowest responsive bidder does not meet or exceed the DBE contract goal, the apparent lowest responsive bidder must submit a Good Faith Effort Package to satisfy the Cabinet that sufficient good faith efforts were made to meet the contract goals prior to submission of the bid. Efforts to increase the goal after bid submission will not be considered in justifying the good faith effort, unless the contractor can show that the proposed DBE was solicited prior to the letting date. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted. One complete set (hard copy along with an electronic copy) of this information must be received in the Division of Contract Procurement no later than 12:00 noon of the tenth calendar day after receipt of notification that they are the apparent low bidder.

Where the information submitted includes repetitious solicitation letters it will be acceptable to submit a sample representative letter along with a distribution list of the firms solicited. Documentation of DBE quotations shall be a part of the good faith effort submittal as necessary to demonstrate compliance with the factors listed below which the Cabinet considers in judging good faith efforts. This documentation may include written subcontractors' quotations, telephone log notations of verbal quotations, or other types of quotation documentation.

The Good Faith Effort Package shall include, but may not be limited to information showing evidence of the following:

1. Whether the bidder attended any pre-bid meetings that were scheduled by the Cabinet to inform DBEs of subcontracting opportunities;
2. Whether the bidder provided solicitations through all reasonable and available means;
3. Whether the bidder provided written notice to all DBEs listed in the DBE directory at the time of the letting who are prequalified in the areas of work that the bidder will be subcontracting;
4. Whether the bidder followed up initial solicitations of interest by contacting DBEs to determine with certainty whether they were interested. If a reasonable amount of DBEs within the targeted districts do not provide an intent to quote or no DBEs are prequalified in the subcontracted areas, the bidder must notify the Disadvantaged Enterprise Business Liaison Officer (DEBLO) in the Office for Civil Rights and Small Business Development to give notification of the bidder's inability to get DBE quotes;
5. Whether the bidder selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise perform these work items with its own forces;
6. Whether the bidder provided interested DBEs with adequate and timely information about the plans, specifications, and requirements of the contract;
7. Whether the bidder negotiated in good faith with interested DBEs not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached;
8. Whether quotations were received from interested DBE firms but were rejected as unacceptable without sound reasons why the quotations were considered unacceptable. The fact that the DBE firm's quotation for the work is not the lowest quotation received will not in itself be considered as a sound reason for rejecting the quotation as unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a DBE quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy DBE goals;
9. Whether the bidder specifically negotiated with subcontractors to assume part of the responsibility to meet the contract DBE goal when the work to be subcontracted includes potential DBE participation;
10. Whether the bidder made any efforts and/or offered assistance to interested DBEs in obtaining the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal; and
11. Any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include DBE participation.

### **FAILURE TO MEET GOOD FAITH REQUIREMENT**

Where the apparent lowest responsive bidder fails to submit sufficient participation by DBE firms to meet the contract goal and upon a determination by the Good Faith Committee based upon the information submitted that the apparent lowest responsive bidder failed to make sufficient reasonable efforts to meet the contract goal, the bidder will be offered the opportunity to meet in person for administrative reconsideration. The bidder will be notified of the Committee's decision within 24 hours of its decision. The bidder will have 24 hours to request reconsideration of the Committee's decision. The reconsideration meeting will be held within two days of the receipt of a request by the bidder for reconsideration.

The request for reconsideration will be heard by the Office of the Secretary. The bidder will have the opportunity to present written documentation or argument concerning the issue of whether it met the goal or made an adequate good faith effort. The bidder will receive a written decision on the reconsideration explaining the basis for the finding that the bidder did or did not meet the goal or made adequate Good Faith efforts to do so.

The result of the reconsideration process is not administratively appealable to the Cabinet or to the United States Department of Transportation.

The Cabinet reserves the right to award the contract to the next lowest responsive bidder or to rebid the contract in the event that the contract is not awarded to the low bidder as the result of a failure to meet the good faith requirement.

### **SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT**

Failure by the prime contractor to fulfill the DBE requirements of a project under contract or to demonstrate good faith efforts to meet the goal constitutes a breach of contract. When this occurs, the Cabinet will hold the prime contractor accountable, as would be the case with all other contract provisions. Therefore, the contractor's failure to carry out the DBE contract requirements shall constitute a breach of contract and as such the Cabinet reserves the right to exercise all administrative remedies at its disposal including, but not limited to the following:

- Suspension of Prequalification;
- Disallow credit toward the DBE goal;
- Withholding progress payments;
- Withholding payment to the prime in an amount equal to the unmet portion of the contract goal; and/or
- Termination of the contract.

### **PROMPT PAYMENT**

The prime contractor will be required to pay the DBE and Non-DBE Subcontractors within seven (7) working days after he or she has received payment from the Kentucky Transportation Cabinet for work performed or materials furnished.

### **CONTRACTOR REPORTING**

All contractors must keep detailed records and provide reports to the Cabinet on their progress in meeting the DBE requirement on any highway contract. These records may include, but shall not be limited to payroll, lease agreements, cancelled payroll checks, executed subcontracting agreements, etc. Prime contractors will be required to complete and submit a **signed and notarized** Affidavit of Subcontractor Payment (TC 18-7) and copies of checks for any monies paid to each DBE subcontractor or supplier utilized to meet a DBE goal. These documents must be completed and signed within 7 days of being paid by the Cabinet.

Payment information that needs to be reported includes date the payment is sent to the DBE, check number, Contract ID, amount of payment and the check date. Before Final Payment is made on this contract, the Prime Contractor will certify that all payments were made to the DBE subcontractor and/or DBE suppliers.

\*\*\*\*\* IMPORTANT \*\*\*\*\*

**Please mail the original, signed and completed TC (18-7) Affidavit of Subcontractor Payment form and all copies of checks for payments listed above to the following address:**

Office for Civil Rights and Small Business Development  
6<sup>th</sup> Floor West 200 Mero Street  
Frankfort, KY 40622

The prime contractor should notify the KYTC Office for Civil Rights and Small Business Development seven (7) days prior to DBE contractors commencing work on the project. The contact in this office is Mr. Tony Youssefi. Mr. Youssefi's current contact information is email address – [tyousseffi@ky.gov](mailto:tyousseffi@ky.gov) and the telephone number is (502) 564-3601.

### **DEFAULT OR DECERTIFICATION OF THE DBE**

If the DBE subcontractor or supplier is decertified or defaults in the performance of its work, and the overall goal cannot be credited for the uncompleted work, the prime contractor may utilize a substitute DBE or elect to fulfill the DBE goal with another DBE on a different work item. If after exerting good faith effort in accordance with the Cabinet's Good Faith Effort policies and procedures, the prime contractor is unable to replace the DBE, then the unmet portion of the goal may be waived at the discretion of the Cabinet.

### **PROHIBITION ON TELECOMMUNICATIONS EQUIPMENT OR SERVICES**

In accordance with the FY 2019 National Defense Authorization Act (NDAA), 2 CFR 200.216, and 2 CFR 200.471, Federal agencies are prohibited, after August 13, 2020, from obligating or expending financial assistance to obtain certain telecommunications and video surveillance services and equipment from specific producers. As a result of these regulations, contractors and subcontractors are prohibited, on projects with federal funding participation, from providing telecommunication or video surveillance equipment, services, or systems produced by:

- Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities)
- Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities)

**LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – CARGO PREFERENCE ACT (CPA).**

**(REV 12-17-15) (1-16)**

SECTION 7 is expanded by the following new Article:

102.10 **Cargo Preference Act – Use of United States-flag vessels.**

Pursuant to Title 46CFR Part 381, the Contractor agrees

- To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.
- To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph 1 of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.
- To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

### **SURFACING AREAS**

The Department estimates the mainline surfacing width to be \_\_\_\_\_ feet.

The Department estimates the total mainline area to be surfaced to be \_\_\_\_\_ square yards.

The Department estimates the shoulder width to be \_\_\_\_\_ feet on each side.

The Department estimates the total shoulder area to be surfaced to be \_\_\_\_\_ square yards.

### **INCIDENTAL SURFACING**

The Department has included in the quantities of asphalt mixtures established in the proposal estimated quantities required for resurfacing or surfacing mailbox turnouts, farm field entrances, residential and commercial entrances, curve widening, ramp gores and tapers, and road and street approaches, as applicable. Pave these areas to the limits as shown on Standard Drawing RPM-110-06 or as directed by the Engineer. In the event signal detectors are present in the intersecting streets or roads, pave the crossroads to the right of way limit or back of the signal detector, whichever is the farthest back of the mainline. Surface or resurface these areas as directed by the Engineer. The Department will not measure placing and compacting for separate payment but shall be incidental to the Contract unit price for the asphalt mixtures.

### **FUEL AND ASPHALT PAY ADJUSTMENT**

The Department has included the Contract items Asphalt Adjustment and Fuel Adjustment for possible future payments at an established Contract unit price of \$1.00. The Department will calculate actual adjustment quantities after work is completed. If existing Contract amount is insufficient to pay all items on the contract with the adjustments, the Department will establish additional monies with a change order.

### **ASPHALT PAVEMENT RIDE QUALITY CATEGORY A**

The Department will apply Pavement Rideability Requirements on this project in accordance with Section 410, Category A.

### **OPTION A**

Be advised that the Department will accept compaction of asphalt mixtures furnished for driving lanes and ramps, at 1 inch (25mm) or greater, on this project according to OPTION A in accordance with Section 402 and Section 403 of the current Standard Specifications. The Department will require joint cores as described in Section 402.03.02 for surface mixtures only. The Department will accept compaction of all other asphalt mixtures according to OPTION B.

## Special Note for Guardrail

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### I. DESCRIPTION

Except as specified herein, perform all work in accordance with the Department's Standard and Supplemental Specifications, Special Notes and Special Provisions, and the Standard and Sepia Drawings, current editions. Article references are to the Standard Specifications. Furnish all equipment, labor, materials, and incidentals for the following work items:

(1) Site preparation; (2) Remove existing guardrail systems; (3) Construct Guardrail, Guardrail with Extra Length Post, End Treatments, Bridge End Connectors, and Terminal Sections, as applicable; (4) Delineators for guardrail; (5) Maintain and Control Traffic; and (6) all other work specified as part of this contract.

### II. MATERIALS

Except as specified herein, provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual and make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing.

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Guardrail.** Furnish guardrail system components according to Section 814 and the Standard and Sepia Drawings; except use steel posts only, no alternates. Furnish the quantity of Extra Length Post (9 foot length, steel, no alternates) shown in the proposal. Furnish Bridge Guardrail (Case I, I-A, I-B, or II, as applicable) according to the detail drawings included elsewhere in the proposal. Furnish Guardrail – Steel W Beam – Single Face A according to Standard Drawing BHS-007, current edition, except use steel posts only, no alternates.
- C. Precast Concrete Bridge Rail Block.** Furnish precast concrete bridge rail blocks, manufactured with Class A Concrete and Steel Reinforcement (grade #40, #50, or #60), according to the Precast Concrete Bridge Rail Block detail drawing, when required.
- D. Delineators for Guardrail.** Furnish white and/or yellow Delineators for Guardrail according to Standard Drawing RBR-055 – Delineators for Guardrail, current edition.
- E. Erosion Control.** See the Special Note for Erosion Control.

### III. CONSTRUCTION METHODS

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Site Preparation.** Remove existing guardrail system, including the guardrail end treatments; bridge end connectors; bridge handrail and/or existing bridge guardrail, when specified in the summary; and



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all other elements of the existing guardrail system; as per Section 719, except that the Contractor will take possession of all concrete posts and all concrete associated with the existing bridge and/or guardrail end treatments. Locate all disposal areas off the Right of Way. Be responsible for all site preparation, including but not limited to, clearing and grubbing, excavation, embankment, and removal of all obstructions or any other items; regrading, reshaping, adding and compacting of suitable materials on the existing shoulders to provide proper template or foundation for the guardrail; filling voids left as the result of removing existing guardrail and guard posts with dry sand; temporary pollution and erosion control; disposal of excess, waste materials, and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the engineer.

- C. Guardrail.** Except as specified herein, construct guardrail system according to Section 719 and the Standard and Sepia Drawings, current editions. Locations listed on the summary and/or shown on the drawings are approximate only. The Engineer will determine the exact termini for individual guardrail installations and locations for Extra Length Posts at the time of construction. Unless directed otherwise by the Engineer, provide a minimum two (2) foot shoulder width. Construct radii at entrances and road intersections as directed by the Engineer.

Erect guardrail to the lines and grades shown on the current Standard and Sepia Drawings, or as directed by the Engineer by any method approved by the Engineer which allows construction of the guardrail to the true grade without apparent sags.

When removing existing guardrail and installing new guardrail, do not leave the blunt end exposed where it would be hazardous to the public. When it is not practical to complete the construction of the guardrail and the permanent end treatments and terminal sections first, provide a temporary end by connecting at least 25 feet of rail to the last post, and by slightly flaring, and burying the end of the rail completely into the existing shoulder. If left overnight, place a drum with bridge panel in advance of the guardrail end and maintain during use.

Erect the Bridge Guardrail according to the detail drawings. Erect Guardrail – Single Face A on all four corners of the bridge(s) according to Standard Drawing BHS-007, current edition.

- D. Precast Concrete Bridge Rail Block.** Excavate, fill and compact as needed to set the block according to the detail sheets. Unless otherwise directed by the Engineer, set the blocks on all four corners of the bridge.
- E. Delineators for Guardrail.** Construct Delineators for Guardrail according to Standard Drawing RBR-055 – Delineators for Guardrail, current edition.
- F. Property Damage.** Be responsible for all damage to public and/or private property resulting from the work. Restore damaged roadway features and private property at no additional cost to the Department.
- G. Coordination with Utility Companies.** Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all

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utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require utilities to be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of guardrail operations at no additional cost to the Department.

- H. Right of Way Limits.** The Department has not established the exact limits of the Right-of-Way. Limit work activities to obvious Right-of-Way, permanent or temporary easements, and work areas secured by the Department through consent and release of the adjacent property owners. Be responsible for all encroachments onto private lands.
- I. Clean Up, Disposal of Waste.** Dispose of all removed concrete, debris, and other waste and debris off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.
- J. Final Dressing, Seeding and Protection.** Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.
- K. Erosion Control.** See the Special Note for Erosion Control.

#### IV. METHOD OF MEASUREMENT

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Site preparation.** Other than the bid items listed, the Department will not measure Site Preparation for separate payment but shall be incidental to the Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections, as applicable.
- C. Guardrail, Extra Length Post, End Treatments, Bridge End Connectors, Terminal Sections, and Remove Guardrail.** The Department will measure according to Section 719.04.
- D. Remove Concrete Masonry.** When specified in the proposal, the Department will measure the removal of the existing concrete bridge parapet wall in cubic yards.
- E. Remove Bridge Handrail.** When specified in the proposal, the Department will measure the removal of the existing aluminum bridge handrail in linear feet.
- F. Remove Bridge Guardrail.** When specified in the proposal, the Department will measure the quantity of bridge guardrail removed in linear feet, along the face of the rail.
- G. Bridge Guardrail Case I, I-A, I-B, II.** The Department will measure Bridge Guardrail of each type in linear feet along the face of the rail and between the limits of the Guardrail – Single Face A.

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- H. **Guardrail – Steel W Beam – Single Face A.** See Standard Drawing BHS-007, current edition.
- I. **Precast Concrete Bridge Rail Block.** The Department will measure the Precast Concrete Bridge Rail Block quantity in individual units, Each.
- J. **Delineators for Guardrail.** See Standard Drawing RBR-055 – Delineators for Guardrail.
- K. **Clean Up, Disposal of Waste, Final Dressing, and Seeding and Protection.** The Department will NOT measure for payment the operations of: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental. Seeding and Protection will be measured according to Section 212.
- L. **Erosion Control.** See the Special Note for Erosion Control.

V. **BASIS OF PAYMENT**

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. **Guardrail, Extra Length Post, End Treatments, Bridge End Connectors, Terminal Sections, and Remove Guardrail.** The Department will make payment according to Section 719.05.
- C. **Remove Concrete Masonry.** Payment at the Contract unit price per cubic yard shall be full compensation for all labor, equipment, materials, and incidentals necessary to remove the existing concrete bridge parapet wall.
- D. **Remove Bridge Handrail.** Payment at the Contract unit price per linear foot shall be full compensation for all labor, equipment, materials, and incidentals necessary to remove the existing aluminum bridge handrail.
- E. **Remove Bridge Guardrail.** Payment at the Contract unit price per linear foot shall be full compensation for all labor, equipment, materials, and incidentals necessary to remove the existing bridge guardrail.
- F. **Bridge Guardrail Case I, I-A, I-B, II.** Payment at the Contract unit price per linear foot shall be full compensation for all labor, equipment, materials, and incidentals necessary to construct the applicable Case(s) of Bridge Guardrail according to the detail drawings and these notes.
- G. **Guardrail – Steel W Beam – Single Face A.** Payment at the Contract unit price per linear foot shall be full compensation for all labor, equipment, materials, and incidentals necessary to construct the Guardrail – Single Face A according to Standard Drawing BHS-007, current edition, and these notes.
- H. **Precast Concrete Bridge Rail Block.** Payment at the Contract unit price per Each shall be full compensation for all labor, equipment, materials, and incidentals necessary to install the Precast Concrete Bridge Rail Block(s) according to the detail drawings and these notes.

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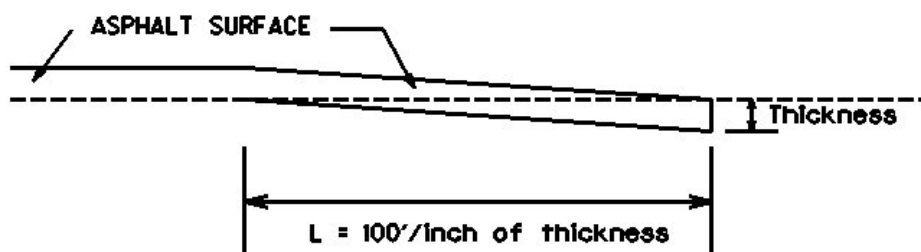
- I. **Delineators for Guardrail.** See Standard Drawing RBR-055 – Delineators for Guardrail.
- J. **Erosion Control.** See the Special Note for Erosion Control.

### SPECIAL NOTE FOR EDGE KEY

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Construct Edge Keys at the beginning of project, end of project, at railroad crossings, and at ramps, as applicable. Unless specified in the Contract or directed by the Engineer, do not construct edge keys at intersecting streets, roads, alleys, or entrances. Cut out the existing asphalt surface to the required depth and width shown on the drawing and heel the new surface into the existing surface. The Department will make payment for this work at the Contract unit price per ton for Asphalt Pavement Milling and Texturing, which shall be full compensation for all labor, materials, equipment, and incidentals for removal and disposal of the existing asphalt surface required to construct the edge key.

### EDGE KEY

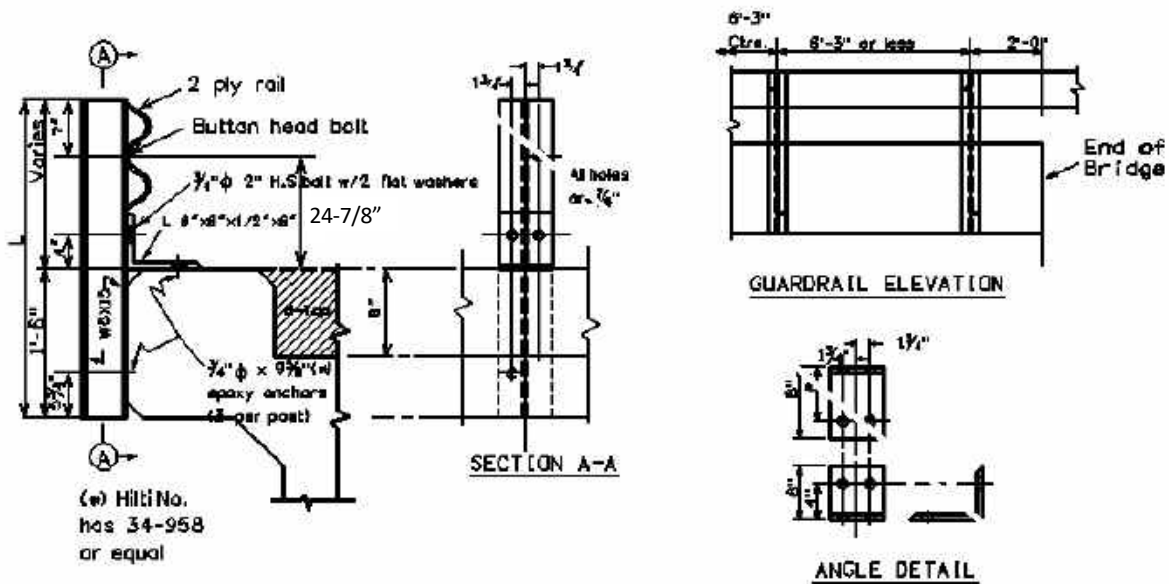


Thickness = 1.25 Inches

L = 125 LF

L = Length of Edge Key

**GUARDRAIL ON BRIDGE, CASE I  
BLACKTOP FLUSH WITH CURB OR ABOVE**



Bridge MP	D =	W =	L =	No. Posts	LF of 2 PLY Rail
8.731 SB	0	10"	4 ft	8	43
8.733 NB	0	10"	4 ft	8	43

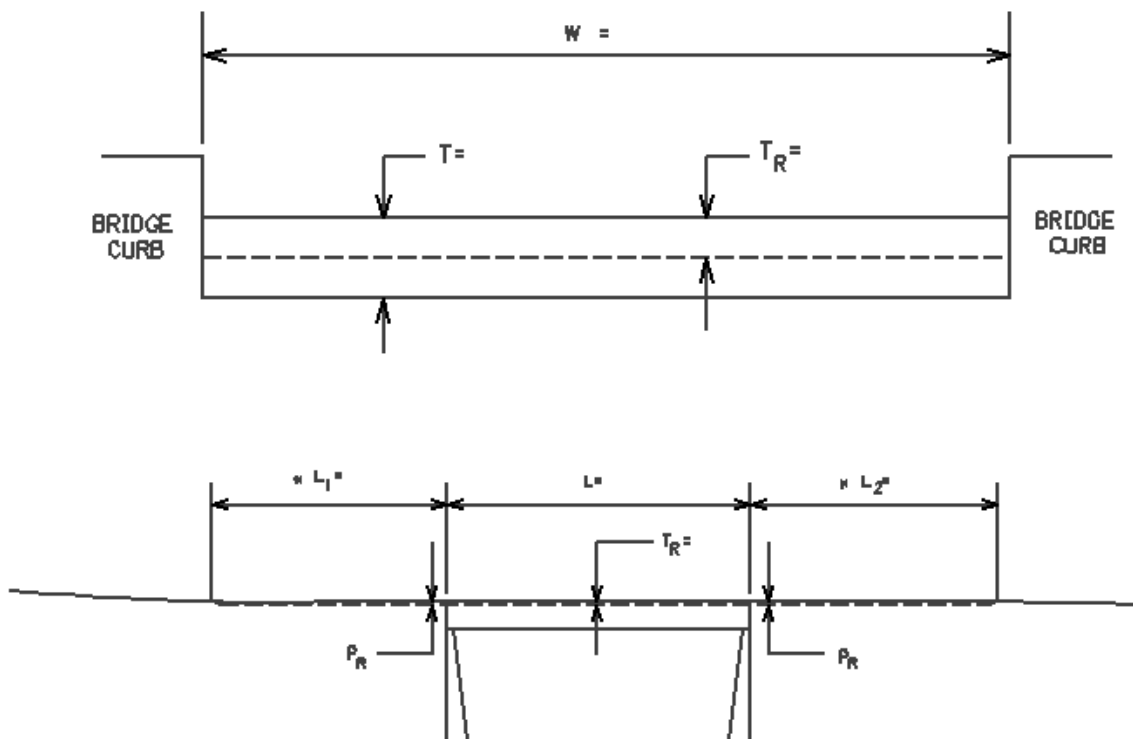
D = Curb Height      W = Width of Bridge Curb      L = Length of Guardrail Post

**WARRANTS:** When guardrail can be bolted to the back of the bridge curb, and where the bridge surface is flush with the top of curb or above, and where the clear distance between the faces of the guardrail is less than 20 Feet, remove existing concrete and/or guardrail bridge rail and use Case I Bridge Guardrail.

**NOTES:**

1. If asphalt paving is included in the Contract and the dimension from the top of the existing riding surface to the top of the curb is 2 inches or less, pave the new surface flush to the top of the curb, and use Case I Bridge Guardrail.
2. Do not use Case I Bridge Guardrail if the existing pavement is not flush with the top of curb and asphalt paving is not included in the Contract or if the dimension from the top of the existing riding surface to the top of the curb is greater than 2 inches.

**BRIDGE DETAIL FOR PAVING PROJECT**  
**BRIDGE NUMBER 114B00001N**



**DIMENSIONS**

W = 22 ft

T = unknown

L<sub>1</sub> = 125 ft

L<sub>2</sub> = 125 ft

T<sub>R</sub> = 1.25 in

L = 43 ft

P<sub>R</sub> = 1.25 in

**ELEVATION**

W = bridge width curb to curb

T = thickness of existing bituminous overlay

L<sub>1</sub> & L<sub>2</sub> = length of approach pavement to be removed

T<sub>R</sub> = thickness to be removed and replaced on bridge

L = length of bridge

P<sub>R</sub> = thickness to be removed and replaced on pavement

Note: The Engineer will determine lengths L<sub>1</sub> & L<sub>2</sub> by using a transition rate of 100 ft/inch of thickness.

## Special Notes Applicable to Project – General Notes & Description of Work

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### **CAUTION**

The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions when developing the Unit Bid Prices for each bid item. As such, if the conditions encountered are not in accordance with the information shown, the Department does not guarantee any changes to the Unit Bid Prices nor extension of the contract will be considered. The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.

### **STATIONING**

The contractor is advised that the planned locations of work were established from a station number, which is STA 474+24.96 at the intersection of KY 185 and Bratcher Road and corresponds to Milepoint 8.982 along KY 185. **NOTE:** The existing mile marker signs may not correspond to the proposed work locations.

### **LIDAR**

All survey information was obtained from available KYTC Aerial LIDAR data and should be field verified as appropriate during construction and prior to incorporating the various project work items. Refer to the Special Note for Staking concerning staking operations required to control and construct the work.

### **ON-SITE INSPECTION**

Before submitting a bid for the work, make a thorough inspection of the site and determine existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid to be evidence of this inspection having been made. The Department will not honor any claims for money or time extension resulting from site conditions.

### **RIGHT OF WAY LIMITS**

The Department has not established the exact limits of the Right-of-Way. Unless a consent and release form is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured and environmentally cleared by the Contractor at no additional cost to the Department. In the event that private improvements (i.e. fences, buildings, etc.) encroach upon the Right-of-Way, the contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.

### **CONTROL**

Perform all work under the absolute control of the Department of Highways. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and his/her decision shall be final and binding upon the Contractor.



General Notes & Description of Work  
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**DESCRIPTION OF WORK**

Except as specified herein, perform all work in accordance with the Department's Standard Specifications, Supplemental Specifications, applicable Special Notes and Special Provisions, and applicable Standard and Sepia Drawings, current editions. Furnish all materials, labor, equipment, and incidentals for the following work:

NOTE: Some field adjustments of the proposed shoulder width, fill slope, and/or ditch may be required. The proposed shoulder and roadside grading is intended to occur within existing Right-of-Way and NOT disturb any sensitive obstructions (i.e. fences, buildings, utility poles, etc.). The desire of the Department is to construct the new fill slopes at 3:1 or flatter. When a fill slope needs to be constructed steeper than 3:1 to remain within existing Right-of-Way or not impact a sensitive obstruction, and the existing fill slope is steeper than 3:1, then the new fill slope can be constructed steeper than 3:1, but the new fill slope shall not be constructed steeper than the existing fill slope. Prior to making modifications to the proposed shoulder width, and/or fill slope, coordinate with and obtain approval from the Engineer.

**Pavement Resurfacing.** The existing roadway is to be resurfaced from Station 440+00 to Station 502+00. Other items that may be associated with the pavement resurfacing include: removal of existing pavement by milling and texturing, construction of edge keys, installation of rumble strips, and application of pavement markings. Refer to the rumble strip Standard Drawings for recommended placement of rumble strips.

**Widening of Paved Shoulder.** Areas have been identified along the route for widening the paved shoulder. Work will include trenching the existing roadside, placing asphalt, and regrading the roadside, as shown on the Typical Sections. Perform this work at the locations identified elsewhere in the Proposal, or the locations as directed by the Engineer. Refer to the Special Note for Shoulder Milling/Trenching for more information.

**Roadside Regrading.** Areas have been identified along the route for Roadside Regrading. The overall intent of the Roadside Regrading work operation is to improve the existing roadside by constructing a proposed width of earth shoulder and regrading the roadside fill slopes, ditch foreslopes, and/or ditch backslopes as flat as possible within the Right-of-Way (or any work areas the Department has obtained through Consent & Release), while NOT disturbing any sensitive obstructions (i.e. fences, buildings, utilities, etc.). A variety of information is included in the proposal to communicate the proposed Roadside Regrading.

- The Special Note for Roadside Regrading provides information on:
  - The required materials and construction methods.
  - How roadside regrading is measured and paid.
- The ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS includes:
  - 11 different Figures that show the common conditions and situations that may be encountered when performing Roadside Regrading.
  - Notes that provide guidance on how to adjust the proposed shoulder and/or roadside dimensions so that Roadside Regrading work operations will remain within the Right-of-Way (or Consent & Release work area) and/or not impact a sensitive obstruction.
- The Typical Section(s) show:
  - The desired dimensions of the proposed shoulder, ditch, and/or roadside slopes.
  - NOTE: There may situations where the desired shoulder, ditch, and/or roadside dimensions must be modified based on existing site conditions. When situations arise where the desired roadside dimensions need to be adjusted, the Contractor and Engineer should work together to determine the final dimensions for the proposed shoulder, ditch, and/or roadside slopes. The notes within the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS

## General Notes & Description of Work

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provide guidance on ways to adjust the Roadside Regrading when common site conditions and constraints are encountered.

- The Roadside Regrading Summary:
  - Lists the locations where Roadside Regrading is to be performed. While the Department anticipates the limits of Roadside Regrading shown on the Roadside Regrading Summary are accurate, it is always possible the condition of the existing shoulders and existing ditches could change between the Design phase and Construction phase of the project. Therefore, the Contractor and the Engineer are to work together to review the limits of Roadside Regrading and make alterations per Section 104.02.
  - Lists estimated volumes of excavation and embankment for each Roadside Regrading location to help indicate the approximate level of effort of each Roadside Regrading location.  
**NOTE: Roadside Regrading will not be measured in the field at the time of construction but will be measured as the proposed quantities of Embankment in Place AND/OR Roadway Excavation, increased or decreased by authorized adjustments in accordance with 204.04.02.**
  - Indicates which Figure reference within the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS is the closest representation of each proposed Roadside Regrading location.
  - Lists the Targeted Fill Slope (or Ditch Foreslope) and, if applicable, the Targeted Backslope for each Roadside Regrading location.
  - Indicates if there is a need for Embankment Benching, a DGA Wedge, and Channel Lining for each Roadside Regrading location.
  - If applicable, lists the estimated quantities of DGA, Asphalt Seal Coat, Asphalt Seal Aggregate, Channel Lining, and Geotextile Fabric for each Roadside Regrading location.
  - Summarizes the quantities of the bid items associated with the Roadside Regrading work operation.

**DGA Wedge & Chip Seal.** All sections of "Roadside Regrading" are set up to receive a DGA Wedge & Chip Seal after the roadside regrading operations are complete. The proposed DGA Wedge dimensions are detailed on the Typical Sections. Refer to the Special Note for Roadside Regrading and the Special Note for Double Asphalt Seal Coat for more information on the DGA Wedge & Chip Seal.

**Pipe Replacements & Extensions.** There are locations throughout the project where culvert pipes are being extended or replaced. Locations and estimated quantities are noted on the Pipe Replacement & Extension Summary. For pipe extensions where the existing pipe is RCP, remove the existing headwall and first section of existing RCP attached to the headwall (approx. 3 to 4 ft of existing pipe). Other items that may be included with the pipe extensions/replacements include culvert headwalls, sloped & mitered concrete headwalls, intermediate anchor/collar, roadside regrading, ditching, channel lining, erosion control blanket, asphalt pavement quantities, etc. Refer to the Special Note for Pipe Replacements/Extensions for more information on this item of work.

**Sloped & Mitered Concrete Headwalls.** Sloped & Mitered Concrete Headwalls shall be constructed as shown on the detail sheets titled: SLOPED & MITERED CONCRETE HEADWALL DETAILS. This headwall is intended to combine the benefits of a pipe headwall with the advantages of safety and adaptability by allowing the headwall to be custom fit to the surrounding embankment. The Pipe Replacement & Extension Summary identifies which pipe ends are to receive the Sloped & Mitered Concrete Headwalls. The identified pipe ends

## General Notes & Description of Work

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shall have the headwall installed and the pipe mitered at a slope that matches the final embankment slopes at each location. If the pipe is on a skew, install the headwall and miter the pipe so that the concrete slope paving of the new headwall is perpendicular to the roadway. In other words, the embankment slope should not be warped to fit the skew of the pipe; the headwall should be installed and the pipe should be mitered to match the final embankment slope, so that the roadside fill slope is fairly consistent prior to the pipe, at the pipe, and beyond the pipe, and does not create an excessive bulge in the embankment. When completed the edges of the Sloped & Mitered Concrete Headwall should be flush with the surrounding ground line. Payment at the Contract unit price Each shall be full compensation for furnishing all labor, materials, equipment, and incidentals necessary to install the headwall and miter the pipe.

NOTE: For pipes that receive the Sloped & Mitered Concrete Headwall, the pipe length will be measured to the furthest point along the mitered end of the pipe.

**Intermediate Anchor/Collar.** There are quantities of Class A Concrete included in the contract to construct an intermediate anchor, or collar, around the pipes at the pipe extension locations. This is so the new pipe can be securely connected to the existing pipe. The intermediate anchors shall be constructed as shown on Standard Drawing RDX-060, current edition.

**Channel Lining.** A quantity of 50 Tons of Channel Lining Class II has been included in the contract for potential use around drop box inlets, safety box inlets, inlets and outlets of pipes, along areas of regraded ditch line and/or fill slope, and other areas as directed by the Engineer. The Contractor and Engineer should work together to determine the location and best use of Channel Lining throughout this project. The Engineer will make the final determination as to the needed quantities and placement of Channel Lining.

**Erosion Control Blanket.** A quantity of 1,500 square yards of Erosion Control Blanket has been included in the contract for potential use along areas of regraded shoulders, ditch lines, fills slopes and/or back slopes, inlets and outlets of pipes, and any other areas as directed by the Engineer. The Contractor and Engineer should work together to determine the location and best use of Erosion Control Blanket throughout this project. The Engineer will make the final determination as to the quantities and placement of Erosion Control Blanket.

Guardrail. Several locations within the project are set up for guardrail replacement. The approximate locations and estimated quantities are noted on the Guardrail Summary. Refer to the Special Note for Guardrail, Typical Sections, and Plan Sheets for more detail and information on this item of work.

NOTE: When the plans call for a Type 1 or Type 4 End Treatment, a MASH eligibility letter from FHWA is required for these end terminals. When a MASH tested eligibility letter is not available for the end terminal being utilized, the most recent NCHRP 350 eligibility letter from FHWA for that terminal will apply. Acceptance of the terminal will be at the discretion of the engineer.

**Bridge Rail Modification using Case I Bridge Guardrail.** There are quantities of Bridge Guardrail Case I included in the contract for modifying the barrier system at the structures identified on the Guardrail Summary. For more information on this item of work, refer to the Special Note for Guardrail and the detail sheet titled: Guardrail on Bridge - Case I.

**Reinforced Concrete Box Culvert Extensions.** There are several locations within the project where existing reinforced concrete box culverts are being extended. Locations and estimated quantities are noted on the

## General Notes & Description of Work

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RCBC Extension Tabulation. Refer to the Structure Plans, Special Note for Box Culvert Extensions, and Traffic Control Plan for more details and information on this item of work.

**Remove, Store & Reinstall Signs.** A quantity of 27 each of “Remove-Store and Reinstall Sign” has been included in the contract for existing sheet signs that may obstruct or interfere with proposed construction activities. Do not remove an existing sign until just prior to working in the vicinity of the sign. Reinstall the sign as soon as possible once the construction activities in the vicinity of the sign has reached a stage that the sign will no longer be an obstruction or interfere with the work. The intent is for the sign to be “down” the minimum length of time necessary.

**Temporary Striping.** A quantity of 24,800 linear feet of Pave Striping – Temp Paint – 4 in has been included in the contract for any other areas as directed by the Engineer. The Contractor and Engineer should work together to determine any locations throughout the project requiring temporary pavement striping. The Engineer will make the final determination as to the quantities and placement of temporary pavement striping.

### Special Note for Staking

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Perform Contractor Staking according to Section 201; except, in addition to the requirements of Section 201, perform the following:

1. Contrary to Section 201.03.01, perform items 1 & 2 usually performed by the Engineer.
2. Verify the dimensions, type, and quantities of the culvert pipes, entrance pipes, and/or box culverts as listed and detailed in the proposal, and determine flow line elevations and slopes necessary to provide positive drainage. Revise as necessary to accommodate the existing site conditions; to provide proper alignment of the drainage structures with existing and/or proposed ditches, stream channels, swales, and the roadway lines and grades; and to ensure positive drainage upon completion of the work.
3. Using stakes, paint marks on the pavement, mag nails, and/or any other means approved by the Engineer, the Contractor shall mark and/or stake the proposed sign locations in the field. NOTE: The proposed signs are listed in the proposal by approximate location and are NOT to be taken as the exact location for the signs. During staking operations the Contractor shall review the signing layout and existing field conditions and look for potential conflicts, including but not limited to utilities, driveways, visual obstructions, etc. When conflicts are found, adjust the staked location of signs to mitigate conflicts. Because the sign locations in the proposal are approximate and the location of some signs may need to be adjusted due to conflicts, during staking operations the Contractor shall refer to and utilize the information in the Manual on Uniform on Traffic Control Devices (MUTCD), current edition. The MUTCD cover items such as: appropriate sign location, advance placement distances, and spacing requirements for signing. The intent is for the proposed signs to be consistent with, and meet the requirements of, the MUTCD. Once the proposed sign locations have been staked, notify and coordinate with the District Traffic Engineer, and perform a review of the staked locations. Adjust the staked locations, as directed by the District Traffic Engineer and obtain approval of the final staked locations. This review will also be used to determine if there are any existing signs that require removal and/or relocation. Provide the District Traffic Engineer with 2 weeks of notice when a route will be ready for a review of the staked locations. NOTE: The District Traffic Engineer may determine that the proposed signing, including sign types and messages, needs to be adjusted and/or modified from what is shown in the proposal. Therefore, the Contractor shall not order any sign material for a route until the route has been staked and final sign location approval has been given by the District Traffic Engineer.
4. Produce and furnish to the Engineer "As Built" information for the drainage improvements. For the drainage improvements, as built information will consist of a final record of the actual types, sizes, and locations of the drainage structures (i.e. box inlets, headwalls, junction boxes, etc.), culvert pipes, and/or box culverts constructed. Final elevation data of the drainage improvements is not necessary.
5. Using paint marks on the pavement, and/or any other means approved by the Engineer, the Contractor shall layout and pre-mark the proposed striping, pavement markings, etc. Adjust as necessary to accommodate the existing site conditions and to provide proper alignment of the proposed thru lanes. Obtain approval of the pre-marked layout from the Engineer and/or District Traffic Engineer prior to installing the striping and/or pavement markings.
6. Prior to incorporating into the work, obtain the Engineers approval of all revisions determined by the Contractor.
7. Perform any and all other staking operations required to control and construct the work.

## Special Note for Erosion Control

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### I. DESCRIPTION

Perform all erosion and water pollution control work in accordance with any other notes in the Proposal, the Department's Standard and Interim Supplemental Specifications, the Special Provisions and Special Notes, and the Standard and Sepia Drawings, current editions, or as directed by the Engineer. Section references are to the Standard Specifications. This work shall consist of:

(1) Developing and preparing a Best Management Practices Plan (BMP) tailored to suit the specific construction phasing for each site within the project; (2) Preparing the project site for construction, including locating, furnishing, installing, and maintaining temporary and/or permanent erosion and water pollution control measures as required by the BMP prior to beginning any earth disturbing activity on the project site; (3) Clearing and grubbing and removal of all obstructions as required for construction; (4) Removing all erosion control devices when no longer needed; (5) Restoring all disturbed areas as nearly as possible to their original condition; (6) Preparing seedbeds and permanently seeding all disturbed areas; (7) Providing a Kentucky Erosion Prevention and Sediment Control Program (KEPSC) qualified inspector; and (8) Performing any other work to prevent erosion and/or water pollution as specified by this contract, required by the BMP, or as directed by the Engineer.

### II. MATERIALS

Furnish materials in accordance with these notes, the Standard Specifications and Interim Supplemental Specifications, applicable Special Provisions and Special Notes, and the Standard and Sepia Drawings, current editions. Provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual. Unless directed otherwise by the Engineer, make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing.

### III. CONSTRUCTION

Be advised, these Erosion Control Notes do not constitute a BMP plan for the project. Jointly with the Engineer, prepare a site-specific BMP plan for each drainage area within the project in accordance with Section 213. Provide a unique BMP at each project site using good engineering practices taking into account existing site conditions, the type of work to be performed, the construction phasing, methods, and the techniques to be utilized to complete the work. Be responsible for all erosion prevention, sediment control, and water pollution prevention measures required by the BMP for each site. Represent and warrant compliance with the Clean Water Act (33 USC Section 1251 et seq.), the 404 Permit, the 401 Water Quality Certification, and applicable state and local government agency laws, regulations, rules, specifications, and permits. Contrary to Section 105.05, in case of discrepancy between these notes, the Standard Specifications, Interim Supplemental Specifications, Special Provisions and Special Notes, Standard and Sepia Drawings, and such state and local government agency requirements, adhere to the most restrictive requirement.

Conduct operations in such a manner as to minimize the amount of disturbed ground during each phase of the construction and limit the haul roads to the minimum required to perform the work. Preserve existing

Erosion Control  
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vegetation not required to be removed by the work or the contract. Seed and/or mulch disturbed areas at the earliest opportunity. Use silt fence, silt traps, temporary ditches, brush barriers, erosion control blankets, sodding, channel lining, and other erosion control measures in a timely manner as required by the BMP and as directed or approved by the Engineer. Prevent sediment laden water from leaving the project, entering an existing drainage structure, or entering a stream.

Provide for erosion control measures to be in place and functioning prior to any earth disturbance within a drainage area. Compute the volume and size of silt control devices necessary to control sediment during each phase of construction. All silt control devices shall be sized to retain a volume of 3,600 cubic feet per disturbed contributing acre. Remove sediment from silt traps before they become a maximum of ½ full. Maintain silt fence by removing accumulated trappings and/or replacing the geotextile fabric when it becomes clogged, damaged, or deteriorated, or when directed by the Engineer. Properly dispose of all materials trapped by erosion control devices at approved sites off the right of way obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.

As work progresses, add or remove erosion control measures as required by the BMP, applicable to the Contractor's project phasing, construction methods, and techniques. Update the volume calculations and modify the BMP as necessary throughout the duration of the project. Ensure that an updated BMP is kept on site and available for public inspection throughout the life of the project.

The required volume at each Silt Trap shall be computed based on the Up Gradient Contributing Areas that are disturbed and/or stabilized to the satisfaction of the Engineer. The required volume calculation for each Silt Trap shall be determined by the Contractor and verified by the Engineer. The required volume at each Silt Trap may be reduced by the following amounts:

- Up Gradient Areas not disturbed (acres)
- Up Gradient Areas that have been reclaimed and protected by Erosion Control Blanket or other ground protection material such as Temporary Mulch (acres)
- Up Gradient Areas that have been protected by Silt Fence (acres) – Areas protected by Silt Fence shall be computed at a maximum rate of 100 square feet per linear foot of Silt Fence
- Up Gradient Areas that have been protected by Silt Traps (acres)

The use of Temporary Mulch is encouraged.

Silt Trap Type B shall always be placed at the collection point prior to discharging into a Blue Line Stream or onto an adjacent Property Owner. Where overland flow exists, a Silt Fence or other filter devices may be used.

After all construction is complete, restore all disturbed areas in accordance with Section 212. Completely remove all temporary erosion control devices not required as part of the permanent erosion control from the construction site. Prior to removal, obtain the Engineer's concurrence of items to be removed. Grade the remaining exposed earth (both on and off the Right-of-Way) as nearly as possible to its original condition, or as directed by the Engineer. Prepare the seed bed areas and sow all exposed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

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#### **IV. MEASUREMENT**

The Department will measure the various erosion control items according to Section 212.04 and Section 213.04, as applicable.

#### **V. Basis of Payment**

The Department will make payment for the various erosion control items according to Section 212.04 and Section 213.04, as applicable.



## Special Note for Roadside Regrading

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### I. DESCRIPTION

Except as provided herein, all work shall be performed in accordance with Department's Standard Specifications, Interim Supplemental Specifications, applicable Standard and Sepia Drawings, applicable Special Provisions and Special Notes, current editions. Article references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

- (1) Maintaining and Controlling Traffic; (2) Site Preparation; (3) Roadside Regrading; (4) Constructing Embankments, Embankment Benching, and/or Excavation; (5) Erosion Control; and (6) Any other work as specified in this Contract.

### II. MATERIALS

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Erosion Control.** See Special Note for Erosion Control.
- C. DGA.** Furnish Dense Graded Aggregate as per Section 805.
- D. Asphalt Seal Coat.** See the Special Note for Double Asphalt Seal Coat.
- E. Asphalt Seal Aggregate.** See the Special Note for Double Asphalt Seal Coat.
- F. Channel Lining, Class II.** When listed as a bid item, furnish Channel Lining, Class II as per Section 805.
- G. Geotextile Fabric Class 1.** When listed as a bid item, furnish Geotextile Fabric Class 1 as per Section 843.
- H. Crushed Stone Base.** Furnish Crushed Stone Base as per Section 805.

### III. CONSTRUCTION METHODS

- A. Maintain and Control Traffic.** See the Traffic Control Plan.
- B. Erosion Control.** See the Special Note for Erosion Control.

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- C. Site Preparation.** Be responsible for all site preparation including, but not limited to: staking; clearing, grubbing, and removal of all obstructions or any other items; excavation, embankment benching, compacting embankment in place; temporary pollution and erosion control; disposal of excess, waste, and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the Engineer.
- D. Staking.** See the Special Note for Staking.
- E. Roadside Regrading.** Perform Roadside Regrading at the approximate locations listed on the Summary Sheets and/or Plan Sheets, the Roadside Regrading Summary, or at locations as directed by the Engineer. All work shall be completed according to Sections 204, 205, and 209, or as specified in the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS, the Typical Sections, the Plan Sheets, or as directed by the Engineer. Roadside Regrading shall consist of any necessary clearing, grubbing, grading, and/or reshaping of the existing shoulder, ditch, and/or roadside to achieve the proposed shoulder, ditch, and/or roadside dimensions detailed on the Typical Sections, and the Roadside Regrading and Embankment Benching Details. Depending on the existing conditions encountered and to achieve the dimensions as detailed in the Typical Sections, Roadside Regrading may also include, but is not limited to: embankment benching, excavating and removing excess material, excavation of rock, providing additional earth material suitable for vegetation growth and grading, shaping, and compacting the earth material.
- Provide positive drainage of ditches and slopes at all times during and upon completion of construction. When asphalt surfacing or resurfacing is included in the contract, perform all Roadside Regrading operations as is practical before beginning final surfacing operations.
- F. Embankment Benching.** Embankment Benching shall be required when the existing groundline has an incline greater than 15%. For more information refer to the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS.
- G. DGA Wedge & Chip Seal.** Some, or possibly all, areas of Roadside Regrading may be set up to receive a DGA Wedge & Chip Seal after the Roadside Regrading operations are complete. Other areas of Roadside Regrading may NOT be set up to receive the DGA Wedge & Chip Seal. See the Summary Sheets and/or Plan Sheets for the approximate locations to receive the DGA Wedge & Chip Seal. The Engineer will determine the exact limits of the DGA Wedge & Chip Seal at the time of construction. Construct and compact the DGA as required by Section 302. Place Chip Seal over the entire width of the DGA Wedge. See the Special Note for Double Asphalt Seal Coat for the Chip Seal requirements.
- H. Channel Lining.** Install Class II Channel Lining along any sections of ditches, fill slopes, or ditch backslopes identified in the Proposal, or any other locations the Engineer directs for slope protection or erosion control. When Channel Lining is proposed to be installed along a steep fill slope in order to establish a width of shoulder (as shown in Figure 5 of the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS), the Channel Lining is to be capped with Geotextile Fabric Class 1 and 4" of Crushed Stone Base. In lieu of 4" of Crushed Stone Base, 4" of DGA and a

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Double Asphalt Seal Coat may be specified in the Proposal. Install whichever aggregate capping material the Proposal specifies, or as directed by the Engineer.

- I. **Right-of-Way Limits.** The Department has not established exact limits of the Right-of-Way. Unless a consent and release form is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured by the Contractor at no additional cost to the Department. In the event that private improvements (i.e. fences, buildings, etc.) encroach upon the Right-of-Way, the contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.
- J. **Property Damage.** The Contractor shall be responsible for all damage to public and/or private property resulting from the Contractor's activities. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.
- K. **Coordination with Utility Companies.** Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs due to the Contractor's operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR'S OPERATIONS. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however, no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.
- L. **Caution.** The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions when developing the Unit Bid Prices for each bid item. As such, if the conditions encountered are not in accordance with the information shown, the Department does not guarantee any changes to the Unit Bid Prices nor extension of the contract will be considered. The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.
- M. **Control.** Perform all work under the absolute control of the Department. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces, and to permit public utility companies and others to do work during the

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construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties.

Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and the Engineer's decision shall be final and binding upon the Contractor.

- N. Clean Up, Disposal of Waste.** Clean up the project area as work progresses. Dispose of all removed excess material, debris, and other waste at approved sites off the Right of Way obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.
- O. Final Dressing, Seeding and Protection.** Grade all disturbed areas to blend with the adjacent roadways features and to provide a suitable seed bed. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

#### IV. METHOD OF MEASUREMENT

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Erosion Control.** See Special Note for Erosion Control.
- C. Site Preparation.** Other than the bid items listed, the Department will NOT measure Site Preparation for payment, but shall be incidental to the project bid items.
- D. Staking.** See Special Note for Staking.
- E. Roadside Regrading.** Roadside Regrading will not be measured in the field at the time of construction but will be measured as the proposed quantities of Embankment in Place AND/OR Roadway Excavation, increased or decreased by authorized adjustments in accordance with 204.04.02. The proposed quantities for each proposed area listed in the Roadside Regrading Summary will be reviewed by the Engineer or their designee and approved for payment if the Contractor's roadside regrading results are accepted by the Engineer. Generally speaking, for a proposed Roadside Regrading area to be accepted by the Engineer, the Contract will need to achieve the proposed shoulder, ditch, and/or roadside dimensions, including any necessary embankment benching, detailed on the Typical Section and the corresponding Figure listed on the Roadside Regrading and Embankment Benching Details, unless the Engineer approves an adjustment to the proposed dimensions. See the Special Note for Staking for more information about

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working with the Engineer to determine when it would be appropriate to adjust the proposed dimensions of any particular Roadside Regrading area.

NOTE: if the Roadside Regrading Summary indicates quantities for both Embankment in Place and Roadway Excavation, the proposed quantities for both Embankment in Place and Roadway Excavation will be paid.

- F. Embankment Benching.** Embankment benching shall be required when the existing groundline has an incline greater than 15% (Approx. 6:1). Excavation of embankment benches shall be incidental; however, embankment benching will be measured as Embankment in Place. On the Roadside Regrading Summary, the Department has included quantities for embankment benching within the bid quantities of Embankment in Place for the proposed areas of Roadside Regrading that are anticipated to require embankment benching.
- G. DGA, CSB.** When listed as bid items, DGA and Crushed Stone Base shall be measured according to Section 302.04.
- H. Chip Seal.** When specified in the contract, the bid items associated with Chip Seal shall be measured according to the Special Note for Double Asphalt Seal Coat.
- I. Channel Lining, Class II.** When listed as a bid item, Class II Channel Lining shall be measured according to Section 703.04.
- J. Geotextile Fabric, Class 1.** When listed as bid items, Geotextile Fabric, Class 1 shall be measured according to Section 214.04.
- K. Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection.** The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental to the project bid items. Seeding and Protection shall be measured according to Section 212.

**V. BASIS OF PAYMENT**

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Erosion Control.** See Special Note for Erosion Control.
- C. Staking.** See Special Note for Staking.
- D. Roadside Regrading.** The Department will make payment for the completed and accepted quantities under the bid items EMBANKMENT IN PLACE and/or ROADWAY EXCAVATION. The Department will consider payment full compensation for furnishing all labor, materials,

Roadside Regrading  
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equipment, and incidentals necessary to perform Roadside Regrading as required by these notes, at the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.

- E. DGA, CSB.** When listed as bid items, the Department will make payment for DGA and Crushed Stone Base according to Section 302.05.
- F. Chip Seal.** When specified in the contract, the Department will make payment for the bid items associated with Chip Seal according to the Special Note for Double Asphalt Seal Coat.
- G. Channel Lining, Class II.** When listed as a bid item, the Department will make payment for Class II Channel Lining according to Section 703.05.
- H. Geotextile Fabric, Class 1.** When listed as a bid item, the Department will make payment for Geotextile Fabric, Class 1 according to Section 214.05.

### **Special Note for Shoulder Milling/Trenching**

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Trench shoulders as shown on the Typical Section. The Engineer may eliminate locations along the route from shoulder trenching (e.g. road approaches, turn lanes, entrances, etc.). For entrances and road approaches, the Engineer will determine whether to omit the trenching or continue the trenching across the entrance or approach. DO NOT trench across entrances or road approaches without the Engineer's approval. If trenching is achieved by means other than milling, saw cut the pavement 6 inches deep to create a smooth edge prior to excavating the shoulder trench. Excavate the material from the shoulder and maintain the proposed cross-slope as shown on the Typical Sections. The intent is to mill, or excavate, the entire trench so that the proposed shoulder slope is retained at the end of the paving operation. Reshape and compact excavated material from the trench on the outside edge of the newly paved shoulder as shown on the Typical Section.

Retain possession of excess materials and/or materials the Engineer deems unsuitable for reuse and waste the materials off the right-of-way at sites obtained by the Contractor at no additional cost to the Department. See Special Provision for Waste and Borrow.

Accept payment at the contract unit price per square yard for SHOULDER MILLING/TRENCHING as full compensation for all labor, materials, equipment, and incidentals for excavating the shoulder trench and reuse and/or disposal of the excavated material.

***SPECIAL NOTE***

**For Tree Removal**

**Warren County  
KY-185 Safety Improvements  
Item No. 3-9024**

NO CLEARING OF TREES 5 INCHES OR GREATER (DIAMETER BREAST  
HEIGHT) FROM MAY 15 – JULY 31.

**If there are any questions regarding this note, please contact Danny Peake, Director,  
Division of Environmental Analysis, 200 Mero Street, Frankfort, KY 40601, Phone:  
(502) 564-7250.**



## Special Note for Box Culvert Extensions

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### I. DESCRIPTION

Except as provided herein, perform all work in accordance with the Department's Standard Specifications, interim Supplemental Specifications, Standard and Sepia Drawings, and Special Notes and Special Provisions, current editions. Section references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

- (1) Contractor staking; (2) Site preparation; (3) Removing existing concrete masonry, as necessary; (4) Foundation preparation and construction of reinforced concrete box culvert extensions and headwalls; (4) Maintain and Control Traffic; and (5) all other work specified as part of this contract.

### II. MATERIALS

Provide for sampling and testing of all materials in accordance with the Department's Sampling Manual. Make materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these notes.

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Erosion Control.** See Special Note for Erosion Control.
- C. Foundation Preparation.** Furnish materials according to Section 603, the drawings, and as directed by the Engineer.
- D. Reinforced Concrete Box Culvert Extensions.** Furnish Class A Concrete and deformed Steel Reinforcement according to Sections 601 and 602. Contrary to Section 602.03.03, field bending bars will be allowed; however, obtain the Engineers approval of proposed field bending methods prior to bending. Furnish additional reinforcement to provide adequate splice lengths with existing box culvert steel as determined by the Engineer.
- E. Steel Reinforcement.** See Section 811.

### III. CONSTRUCTION

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Erosion Control.** See Special Note for Erosion Control.
- C. Site Preparation.** Be responsible for all Site Preparation, including but not limited to Clearing and Grubbing; Removing pavement; Tree and Stump removal; Temporary Fencing; Roadway Excavation and Structure Excavation; Embankment and Embankment in Place; removal of obstructions or any other items; Grading, Reshaping, and Compacting; Roadside Regrading, obtaining borrow and waste

## Box Culvert Extensions

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sites, and disposal of materials, waste, and debris; cleaning inlet and outlet ditches; and restoration, cleanup and final dressing. Clear and Grub only the minimum area required for construction and/or as directed by the Engineer. Limit clearing and grubbing to the absolute minimum required to construct the box culvert extensions. Obtain the Engineer's approval before removing trees and stumps from the cleared areas. Phase construction such that the potential for erosion is as minimal as possible. Excavate as needed to remove any portion of the existing structure necessary for construction of the box culvert extension. Perform any ditching or roadside grading as directed by the Engineer. Stockpile suitable materials for incorporation into the work as approved by the Engineer. Be responsible for all excavation (common, roadway, structure, solid rock, and unclassified) required for foundation preparation, toe walls, and all other excavation required for the box culvert extensions. Excavate rock in channel as required to allow for construction of foundation and construction of box culvert extensions. Be responsible for all embankment, embankment in place, and borrow required for backfilling the box culvert extension, constructing widened roadway and shoulder transitions, and all other embankment required to complete the work. Provide positive drainage of slopes and ditches at all times during and upon completion of construction. Waste all removed materials not incorporated into the work at sites off the right of way obtained by the Contractor at no additional cost to the Department (see the Special Provision for Waste and Borrow Sites). Perform all excavation and removal of obstructions only as approved or directed by the Engineer.

Sheeting, shoring, cofferdams, and/or dewatering methods may be necessary for construction of the culvert. Include all costs in the unit price bid for Foundation Preparation.

- D. Remove Headwall.** Remove the existing headwall(s) and wingwalls at the existing box culvert end(s) to sound concrete masonry, or as directed by the Engineer. Before removing any concrete masonry saw around the perimeter of the removal area on the interior and exterior to a depth of 1 inch. When sawing, take care not to cut into the existing steel reinforcement. Do not kink or unnecessarily bend exposed existing steel reinforcement. Remove structure excavation to solid rock, or as directed by the Engineer, and prepare foundation. Existing steel reinforcement shall be thoroughly cleaned of concrete and straightened for use to bond the new concrete and reinforcement with a minimum overlap of 1'-9", unless otherwise shown in the drawings. Coat exposed ends of cut reinforcement with a bituminous produce to prevent corrosion of the ends of the exposed reinforcement. As an alternative, if the existing headwall is sound, the Engineer may approve leaving the existing headwall in place, in which case the existing parapet should be removed to 6" below proposed roadway elevation. If the Engineer approves leaving the existing headwall in place, center 3'-0" long, #6 dowel bars at 12" spacing into the existing slabs and walls, embedded 1'-6" deep into the existing box culvert concrete, and set with an adhesive anchorage system to provide a pullout strength of equal or greater capacity than the corresponding reinforcing steel.
- E. Box Culvert Extensions.** Construct the box culvert extension(s) according to the notes and details in the drawings, and Sections 601, 602, 603, 610, and/or any other applicable Standard Specifications. Class A Concrete shall be used throughout. Bond the proposed plastic concrete to the existing hardened concrete in all locations using a Type V Epoxy Resin or other approved structural adhesive, as prescribed in Section 826. Follow the manufacturer's application instructions. All exposed concrete edges shall be beveled  $\frac{3}{4}$ ", unless otherwise noted. Reinforcement shall have a 2" clear distance to the proposed face of concrete, unless otherwise noted. Obtain the Engineer's approval

## Box Culvert Extensions

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of the final centerline, flow line, length, skew, and revised dimensions and/or steel pattern, if any, of each box culvert extension prior to placing concrete.

The Contractor is required to complete the box culvert extension(s) in accordance with the plans and all applicable specifications. The cost of any and all labor, materials, equipment, and/or any other items necessary to construct the box culvert extension(s) shall be incidental to the most appropriate bid items. Incidental items may include, but are not limited to, cofferdams, shoring, excavation, backfilling, and phased construction.

- F. Remove Concrete Masonry.** If the Engineer approves leaving the existing headwall(s) in place, a portion of the existing parapet(s) may need to be removed in order to construct a shoulder of suitable depth from the edge of pavement to the proposed headwall. Any necessary removal of a portion of the existing parapet shall be considered Site Preparation and shall be incidental to the box culvert bid items. Also, if the existing headwall(s) are left in place, one or both of the existing wingwalls, or a portion of either wingwall may need to be removed in order to construct the proposed box culvert extension(s) and/or headwall(s). In this situation, any necessary removal of the existing wingwall(s), or any portion thereof, shall be considered Site Preparation and shall be incidental to the box culvert bid items.
- G. Embankments.** Backfill box culvert extensions and construct embankments, slopes, roadway shoulders, and ditches as shown on the drawings, or as directed by the Engineer. Warp and tie the embankment slopes into the adjacent existing roadway to match the existing slopes and ditches. Provide positive drainage of slopes and ditches at all times during and upon completion of construction.
- H. Roadside Regrading.** Construct ditches and shoulders to provide positive drainage. Transition the ditches and shoulders between the existing typical section and the reconstructed roadway at the box culvert extension site(s). Clean all new and existing cross drainage and entrance structures within the limits of the roadside regrading and/or ditching areas according to Section 209.03.B.
- I. Clean Culvert.** Remove all deleterious material and objects not native to the box culvert barrel, such as, but not limited to debris and silt. The Contractor may choose to clean the box culvert prior to, or after, the proposed box culvert extension work. If the Contractor chooses to clean the box culvert prior to the proposed box culvert extension work, and additional debris, silt, etc. builds up during the box culvert extension operations, the Contractor shall remove the additional debris, silt, etc. at no additional cost to the Department, after the box culvert extension operations are complete.

**NOTE:** The proposal lists the existing box culverts that are to receive the Clean Culvert bid item. These identified box culverts are those that had existing debris, silt, etc. at the time the proposal was developed. The Engineer and the Contractor are encouraged to review the proposed box culvert extension site(s) prior to the Contractor beginning the box culvert extension work and determine if the Clean Culvert bid item applies. The Engineer shall determine the final approved quantities. If an existing box culvert location has a buildup of debris, silt, etc., but the Clean Culvert bid item is NOT listed in the proposal for that box culvert, the Contractor shall notify the Engineer prior to beginning box culvert extension operations, so that the Engineer can confirm that the existing box culvert has a buildup of debris, silt, etc. If the contractor does not notify the Engineer of this situation prior to

## Box Culvert Extensions

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beginning the box culvert extension operations, the Engineer will assume the buildup was a result of the Contractor's operations, and the cost of cleaning the box culvert shall be at no additional cost to the Department.

- J. Property Damage.** Be responsible for all damage to public and/or private property resulting from the work. Restore damaged roadway features and private property at no additional cost to the Department.
- K. On-Site Inspection.** Before submitting a bid for the work, make a thorough inspection of the site and determine existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid to be evidence of this inspection having been made. The Department does not warrant or give any guarantee as to the accuracy of the data and information shown and no claims for money or time extensions will be considered if the conditions encountered, items used or omitted, and final quantities required are not in accordance with the information shown.
- L. Coordination with Utility Companies.** Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require utilities to be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of the Contractor's operations at no additional cost to the Department.
- M. Right of Way Limits.** The Department has not established the exact limits of the Right-of-Way. Limit work activities to obvious Right-of-Way, permanent or temporary easements, and work areas secured by the Department through consent and release of the adjacent property owners. Be responsible for all encroachments onto private lands.
- N. Control.** Perform all work under the absolute control of the Department. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and his decision shall be final and binding upon the Contractor.
- O. Clean Up, Disposal of Waste.** Dispose of all removed concrete, debris, and other waste and debris off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.

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- P. Final Dressing, Seeding and Protection.** Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

#### IV. MEASUREMENT

Quantities shown on the summaries and drawings are approximate only. The Department will measure for payment only the listed bid items and the actual quantities incorporated in the work. All other items required to complete the construction shall be incidental to the listed bid items.

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Erosion Control.** See the Special Note for Erosion Control.
- C. Site Preparation.** Other than the bid items listed, the Department will not measure Site Preparation for separate payment but shall be incidental to the applicable project bid items.
- D. Remove Headwall.** The Department will measure the removal of existing headwalls as Each. If the Engineer allows a proposed box culvert extension to be constructed without removing the existing headwall, the Remove Headwall bid item shall not be measured for payment.
- E. Foundation Preparation.** The Department will measure Foundation Preparation of box culvert extensions as Lump Sum. The Lump Sum unit price shall include all extensions at each identified box culvert and shall not be measured as individual units per inlet or outlet. Except for the Foundation Preparation bid items listed, the Department will NOT measure Foundation Preparation for any other items of work and shall consider it incidental to the other items of work, as applicable.
- F. Concrete-Class A.** See Section 601.04.
- G. Steel Reinforcement.** See Section 602.04.
- H. Clean Culvert.** The Department will measure each box culvert cleaned as Lump Sum. The bid item Clean Culvert will not be measured when a box culvert must be cleaned due to buildup of debris, silt, etc. that occurs during the Contractor's construction operations.

#### V. PAYMENT

The Department will make payment only for the bid items listed. All other items required to complete the construction shall be incidental to the listed bid items.

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Erosion Control.** See the Special Note for Erosion Control.

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- C. Foundation Preparation.** Payment at the Lump Sum unit price shall be full compensation for furnishing all labor, materials, and equipment necessary for Foundation Preparation of all extensions at each identified box culvert.
- D. Concrete-Class A.** See Section 601.05.
- E. Steel Reinforcement.** See Section 602.05.
- F. Clean Culvert.** The Department will make payment for the completed and accepted quantities of each box culvert cleaned, as approved by the Engineer. Payment at the Lump Sum unit price shall be full compensation for furnishing all labor, materials, and equipment necessary to clean each box culvert measured for payment. Any box culverts that require cleaning but are not approved by the Engineer for measurement of payment, shall be incidental to the box culvert bid items.

## Special Note for Pipe Replacements and Extensions

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### I. DESCRIPTION

Except as provided herein, perform all work in accordance with the Department's Standard Specifications, interim Supplemental Specifications, Standard and Sepia Drawings, and Special Notes and Special Provisions, current editions. Article references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

- (1) Maintaining and Controlling Traffic; (2) Constructing pipe replacements and/or pipe extensions; (3) Embankment and/or Excavation; (4) Erosion Control; and (6) Any other work as specified by this contract.

### II. MATERIALS

Provide for sampling and testing of all materials in accordance with the Department's Sampling Manual. Make materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these notes.

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. **Culvert Pipe.** Furnish pipe meeting the requirements of Section 810. Select pipe for pH range Medium and minimum fill cover height according to the applicable Standard or Sepia Drawings, current editions. Verify maximum and minimum fill cover height required for new pipe prior to construction and obtain the Engineer's approval of the class or gauge of pipe and type of coating prior to delivering pipe to project. Furnish approved connecting bands or pipe anchors and toe walls.
- C. **Flowable Fill.** Furnish Flowable Fill for Pipe Backfill per Section 601.03.03(B).
- D. **Erosion Control.** See Special Note for Erosion Control.

### III. CONSTRUCTION METHODS

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. **Erosion Control.** See Special Note for Erosion Control.
- C. **Site Preparation.** Be responsible for all site preparation including, but not limited to, saw cutting and removing existing pavement; clearing and grubbing; staking; incidental excavation and backfilling; common and solid rock excavation; embankment in place; removal of obstructions, or any other items; restoration of pavements, slopes, and all disturbed areas; final dressing and cleanup; and disposal of materials. Limit clearing and grubbing to the absolute minimum required to construct the drainage features. Perform all site preparation only as approved or directed by the Engineer.
- D. **Removing Headwalls, Pipe, and Excavation.** Remove existing headwalls and lengths of culvert

## Pipe Replacements/Extensions

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and/or entrance pipes at the approximate locations noted on the summary. The Engineer will determine the exact locations and lengths of pipe to be removed at the time of construction. When any portion of pipe under the roadway, saw cut the existing asphalt pavement and base to a neat edge prior to excavation and removal of the existing pipe. NOTE: Saw cutting the pavement shall be incidental. Obtain the Engineer's approval of trench width and/or saw cutting limits prior to saw cutting the pavement. Excavate the trench and remove the pipe as directed, or approved, by the Engineer without disturbing existing underground utilities.

- E. Constructing Pipe, Headwalls, and Drainage Boxes.** Construct culvert and/or entrance pipes, pipe extensions, headwalls, drainage boxes, and other drainage structures at the locations shown in the proposal or as designated by the Engineer. The Contractor will establish, with the approval of the Engineer, the final centerlines, flow lines, and skews to obtain the best fit with the existing and/or proposed ditches and other proposed improvements. (See the Special Note for Staking.) Construct pipe bedding according to Section 701 and the applicable Standard or Sepia Drawings, current editions. Use approved connecting bands or concrete anchors as required. Prior to backfilling pipe, obtain the Engineer's approval of the pipe installation. Provide positive drainage upon completion of pipe installation.
- F. Pipe Backfill.** Backfill entrance pipes according to Section 701.03.06. Contrary to Section 701.03.06, regardless of cover height, backfill culvert pipes with flowable fill as shown on the Culvert Pipe Replacement Detail from the outside edge of shoulder or back of curb to outside edge of shoulder or back of curb. Steel plates will likely be required to maintain traffic while the flowable fill cures. Once the flowable fill has sufficiently cured, place the Asphalt Base in lifts with thicknesses of 3-4 inches, up to the surface of the existing pavement. Seal with Leveling & Wedging. Allow the asphalt base and leveling & wedging to be exposed to traffic for a minimum of 14 days to allow for settlement. During the waiting period, level & wedge any settlement as directed by the Engineer. After the waiting period has been met for the last pipe replacement constructed, the final milling and/or surfacing operations can begin, unless directed otherwise by the Engineer. For culvert pipe beyond the outside edge of shoulder or back of curb, backfill according to Section 701.03.06.
- G. Embankments.** Backfill pipe and culvert extensions, and construct shoulder embankments as directed by the Engineer. The Contractor shall bench into the existing slope and apply proper compaction according to Section 206. For more information and details on benching, refer to Note 2 on the detail sheet titled: ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS, found elsewhere in the Proposal. Provide positive drainage of ditches, shoulders, and slopes at all times during and upon completion of construction.
- H. Property Damage.** Be responsible for all damage to public and/or private property resulting from the work. Repair or replace damaged roadway features in like kind materials and design, as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.
- I. Coordination with Utility Companies.** Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or



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underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of pipe replacement and pipe extension operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR'S OPERATIONS. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however, no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.

- J. Right-of-Way Limits.** The Department has not established exact limits of the Right-of-Way. Unless a consent and release form is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured by the Contractor at no additional cost to the Department. In the event that private improvements (i.e. fences, buildings, etc.) encroach upon the Right-of-Way, the Contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.
- K. Clean Up, Disposal of Waste.** Clean up the project area as work progresses. Dispose of all removed concrete, pipe, pavement, debris, excess and unsuitable excavation, and all other waste at approved sites off the Right of Way obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.
- L. Final Dressing, Seeding and Protection.** Grade all disturbed areas to blend with the adjacent roadways features and to provide a suitable seed bed. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.
- M. Erosion Control.** See the Special Note for Erosion Control.

#### IV. METHOD OF MEASUREMENT

- A. Maintain and Control Traffic.** See the Traffic Control Plan.
- B. Site Preparation.** Other than the bid items listed, site preparation will NOT be measured for payment, but shall be incidental to culvert and/or entrance pipe bid items, as applicable.
- C. Remove Headwall.** The Department will measure the removal of existing headwalls as Each. Any excavation, including rock excavation, necessary to remove existing headwalls will NOT be measured for payment, but shall be incidental to the bid item "Remove Headwall".
- D. Remove Pipe.** Removal of existing culvert and entrance pipe shall be measured according to Section

## Pipe Replacements/Extensions

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701.04.14. Any excavation, including rock excavation, necessary to remove existing pipe will NOT be measured for payment, but shall be incidental to the bid item "Remove Pipe".

- E. Culvert and Entrance Pipe.** The Department will measure the quantities according to Section 701.04. Any excavation, including rock excavation, necessary to install culvert or entrance pipe shall be incidental to the corresponding pipe bid items.
- F. Headwalls, Drainage Boxes.** The Department will measure according to Section 710. Any excavation, including rock excavation, necessary to construct headwalls and/or drainage boxes will NOT be measured for payment, but shall be incidental to the applicable bid item.
- G. Excavation, Pipe Backfill, Embankments.** The Department will NOT measure for payment the following items: any excavation, including rock excavation, necessary to remove the existing pipe and/or install the proposed culvert or entrance pipe, pipe backfill material, geotextile fabric, flowable fill, and re-constructing shoulder embankments, but shall considered these items incidental to the bid items for culvert and entrance pipe.
- H. Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection.** The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental to the project bid items. Seeding and Protection shall be measured according to Section 212.
- I. Erosion Control.** See the Special Note for Erosion Control.

## V. BASIS OF PAYMENT

- A. Maintain and Control Traffic.** See the Traffic Control Plan.
- B. Remove Headwall.** The Department will make payment for the completed and accepted quantities of Each headwall removed. Payment at the Contract unit price per Each shall be full compensation for furnishing all labor, materials, equipment, and incidentals for removing the existing headwall.
- C. Remove Pipe.** The Department will make payment according to Section 701.05. Payment at the Contract unit price per linear foot shall be full compensation for furnishing all labor, materials, equipment, and incidentals for removing the existing pipe.
- D. Culvert and Entrance Pipe.** The Department will make payment according to Section 701.05. Payment at the Contract unit price per linear foot shall be full compensation for furnishing all labor, materials, equipment, and incidentals necessary for installing and backfilling new culvert and entrance pipe.
- E. Headwalls, Drainage Boxes.** The Department will make payment according to Section 710.
- F. Erosion Control.** See the Special Note for Erosion Control.

### Special Note for Signage

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All sign sheeting shall be from the Cabinet's List of Approved Materials.

All permanent signs and sign components shall be fabricated using Type XI sheeting.

The following signs and sign components shall be fabricated using Type XI fluorescent yellow sheeting:

- Horizontal Alignment Signs and Plaques, including signs shown in Figure 2C-1 of the MUTCD
- All Advisory Speed (W13-1P) plaques

The following signs shall be fabricated using Type XI fluorescent yellow-green sheeting:

- School and school bus warning signs, including the fluorescent yellow-green signs shown in Figures 7B-1 and 7B-6 of the MUTCD and other school-related warning signs that are not included in the MUTCD.
- Bicycle Warning (W11-1) signs and SHARE THE ROAD (W16-1P) plaques or diagonal downward pointing arrow (W16-7P) plaques that supplement Bicycle Warning signs.
- Pedestrian Warning signs and diagonal downward pointing arrow plaques that supplement Pedestrian Warning signs.
- In-Street Pedestrian Crossing (R1-6) signs and Overhead pedestrian Crossing (R1-9) signs
- Supplemental plaques to any of the previously listed signs

## Special Note for Signing

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### I. DESCRIPTION

Except as provided herein, this work shall be performed in accordance with the current edition of the Manual on Uniform Traffic Control Devices (MUTCD), the Department's current Standard Specifications and Interim Supplemental Specifications, applicable Standard and Sepia Drawings, and applicable Special Provisions. Article references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

(1) Maintaining and Controlling Traffic; (2) Furnish, Fabricate, and Erect Signs; and (3) All other work specified in the Contract.

### II. MATERIALS

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

**A. Maintain and Control Traffic.** See Traffic Control Plan.

**B. Erosion Control.** See Special Note for Erosion Control.

### III. CONSTRUCTION METHODS

**A. Maintain and Control Traffic.** See Traffic Control Plan.

**B. Site Preparation.** Be responsible for all site preparation including, but not limited to: clearing and grubbing, staking, excavation, backfill, and removal of obstructions or any other material not covered by other items. Perform all site preparation only as approved or directed by the Engineer.

**C. Staking.** See Special Note for Staking.

**D. Signs and Posts.** Before beginning installation, the Contractor shall furnish to the Engineer drawings, descriptions, manufacturer's cuts, etc. describing and/or detailing all material to be used. Mill test reports for beams, steel panels, and each different gauge of aluminum or steel sheeting used must be submitted to the Division of Construction and approved prior to erection.

Fabricate sheet signs from .080 or .125 gauge aluminum alloy 5052-H38 or 6061-T6, in accordance with ASTM B-209, and to the size and shape specified. Prepare the side of the aluminum sheet to receive the retroreflective background material according to the recommendations of the sheeting and retroreflective material manufacturer(s). Sheeting used as background material for sign faces is to be the color specified and visually in accordance with the standard requirements of ASTM D-4956 and meet the requirements of Section 830 of the Standard Specifications. Contrary to Section 830.02.06, only the types and colors of sheeting as specified in the proposal will be accepted. All

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retroreflective material shall be fabricated and assembled in accordance with the specifications and/or recommendations of the manufacturer(s).

All hardware for the erection of sheeting signs shall be rust resistant: stainless steel, zinc coated, aluminum, or an Engineer approved material. All beams and sign posts shall be of sufficient lengths so that a single, continuous length of sign post extends from the top of the sign to the required embedment in the anchor. Splicing of the sign post shall NOT be allowed. For installations in soil, Type I steel posts shall be mounted on either a standard anchor, with soil stabilizer plate, or on a Type D breakaway sign support. Refer to Sheeting Sign Detail Sheet 1 of 2 for installation details for a standard anchor with soil stabilizer plate. When installing a standard anchor with soil stabilizer plate, if solid rock is encountered, the Contractor shall drill a hole to the required depth into the rock, install the anchor into the hole, and backfill the anchor post with concrete, or other method approved by the Engineer. The cost shall be incidental to Type I steel post, and a soil stabilizer plate will not be required. Refer to Standard Drawing RGX-065, current edition, for installation details of Type D breakaway sign supports. Approved manufacturers for Type D breakaway sign supports have been placed on the list of approved materials. For installations on existing concrete, such as a sidewalk, concrete median, etc., or installations on existing asphalt, such as flush medians, Type I steel posts shall be mounted on a Type D Surface Mount. For Type D Surface Mounts use only Kleen Break Model 425 by Xcessories Squared of Auburn, IL. If the Surface Mount is to be installed on sufficiently cured concrete, use part number XKBSM42520-G. If the Surface Mount is to be installed on asphalt surface, use part numbers XKB42520-G and AXT225-36-G. Prior to installation, the Contractor shall submit to the Engineer shop drawings of the Type D Surface Mount(s). Install the Type D Surface Mount(s) according to all the applicable requirements of the manufacturer (see shop drawings). All steel post shall meet the requirements of Section 832. All hardware including, but not limited to, sign post anchors, soil stabilizer plates, nuts, bolts, washers, fasteners, fittings, and bracing, or any other incidentals necessary to erect the signs shall be furnished by the Contractor and will be incidental to the work.

New concrete bases, posts, support anchors, signs, etc. are to be installed prior to dismantling any existing sign(s). The removal of existing signs, posts, and support anchors is to be performed concurrently with the installation of new signs, posts, and support anchors, under the same lane closure during the same work shift. Completely remove existing sign support anchors or remove them to a minimum depth of six (6) inches below existing ground line and backfill the disturbed area to the existing ground line.

When listed on the plans and/or summaries, fabricate Reflective Sign Post Panels from .080 gauge aluminum alloy 5052-H38 or 6061-T6, in accordance with ASTM B-209 and to the size(s) specified. Prepare the side of the aluminum sheet to receive the retroreflective background material according to the recommendations of the sheeting and retroreflective material manufacturer(s). Sheeting for the Reflective Sign Post Panels shall be the same Type and color as the sign installed on the post. Examples include:

- Red, fluorescent yellow, and fluorescent yellow-green (Type XI Sheeting)
- White and yellow (Type XI Sheeting)

Reflective Sign Post Panels shall be 2 inches wide and will typically have a height of 60 inches for rural installations and typically have a height of 84 inches for urban installations. There will be certain instances where a proposed Reflective Sign Post Panel will have a height dimension less than 60

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inches; typically, this will be when the bottom of the bottom-most sign is mounted lower than the standard 5 ft minimum mounting height (e.g. 3 ft or 4 ft mount heights). In those cases, the height of the Reflective Sign Post Panel is expected to closely match (within 1-2 inches) the distance between the top of the anchor or support to the bottom edge of the bottom-most sign. Reflective Sign Post Panels shall have three 3/8" holes (one hole in the top 3", one hole near the center, and one hole in the bottom 3") that align with the holes on the Type I steel post.

All manufactured sheeting signs shall be free of visual defects including, but not limited to: cracks, tears, ridges, humps, discoloration, etc., and defective signs shall be replaced at no additional cost to the Department.

All sign blanks shall be hole punched by the manufacturer for either horizontal or vertical installation. Attach all aluminum sheeting signs to square post with 3/8" all steel rivets and nylon washers. Use bracing as indicated on the plans, summaries, and/or standard signing detail sheets, and/or when directed by the Engineer and/or District Traffic Engineer.

All sign posts shall be attached to anchors with 5/16" corner bolts and 5/16" flanged nuts, and all post and anchor cuts shall be treated with a Cold Galvanizing Compound spray.

Sign posts shall be erected vertically by using a bubble level. The tolerance shall be a two (2) degree angle in any direction. For locations where more than one sign is mounted beside each other, the posts shall be spaced to provide approximately six inches (6") of spacing between signs.

- E. Remove & Relocate Sheet Signs.** When listed on the plans and/or summaries, and/or as directed by the Engineer and/or District Traffic Engineer, remove the specified existing sheet sign(s) from the existing post(s) and reinstall on a new sign post. Once the specified existing sheet sign(s) have been removed and relocated, and if the existing sign post(s) are no longer needed to support other existing signs, removal of the existing sign post(s) will be paid under the bid item REMOVE SIGN. If any of the existing hardware components (bracing, brackets, bolts, rivets, etc.) are found to have pre-existing damage or are damaged during the Contractor's removal and reinstallation efforts, the Contractor shall provide the necessary replacement hardware for proper re-installation of the sheet sign. These components shall be incidental to the bid item REMOVE AND RELOCATE SHEET SIGNS.

Prior to removing and reinstalling a sheet sign, the Contractor shall first review the existing sheet sign for damage. It is the Contractor's responsibility to notify the Engineer of any existing sheet sign damage prior to removal and relocation of the sheet sign, so that it can be documented that the existing sheet sign had pre-existing damage. If the Contractor does not make the Engineer aware of pre-existing damage prior to detaching the sheet sign from its existing post, the Department will assume the damage was the result of the Contractor's removal and reinstallation efforts. The Contractor shall replace any sheet signs that are damaged during the removal and reinstallation efforts. Replacement of sheet signs damaged by the Contractor shall be incidental to the bid item REMOVE AND RELOCATE SHEET SIGNS.

If the existing sheet sign is found to have pre-existing damage, the Department will provide the Contractor with a new sheet sign to replace the sheet sign with pre-existing damage. Detaching the

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existing, damaged sheet sign from the existing post and attaching the new, Department-provided sheet sign to the new sign post shall be incidental to the bid item REMOVE AND RELOCATE SHEET SIGNS.

- F. Remove & Relocate Sign Assemblies.** When listed on the plans and/or summaries, and/or as directed by the Engineer and/or District Traffic Engineer, remove the specified existing sign assemblies from the existing location and reinstall in a new location. The Department will consider all signs attached to one or more connected posts as a single sign assembly, no matter how many signs are attached to the existing sign assembly. If any of the existing hardware components (bracing, brackets, bolts, rivets, etc.) are found to have pre-existing damage or are damaged during the Contractor's removal and reinstallation efforts, the Contractor shall provide the necessary replacement hardware for proper re-installation of the sign assembly. These components shall be incidental to the bid item REMOVE AND RELOCATE SIGN ASSEMBLY.

Prior to removing and relocating a sign assembly, the Contractor shall review the existing sign(s) and sign post(s) for damage. It is the Contractor's responsibility to notify the Engineer of any sign or sign post damage prior to removal and relocation of the sign assembly, so that it can be documented that the existing sign and/or sign post had pre-existing damage. If the Contractor does not make the Department aware of pre-existing damage prior to removing a sign assembly from its existing location, the Department will assume the damage was the result of the Contractor's removal and reinstallation efforts. The Contractor shall replace any components of a sign assembly that are damaged during removal and relocation. Replacement of any components damaged by the Contractor shall be incidental to the bid item REMOVE AND RELOCATE SIGN ASSEMBLY.

If an existing sign that is part of a sign assembly to be removed and relocated is found to have pre-existing damage, the Department will provide the Contractor with a new sign to replace the sign with pre-existing damage. Detaching the existing, damaged sign from the existing post and attaching the new, Department-provided sign to the relocated existing post shall be incidental to the bid item REMOVE AND RELOCATE SIGN ASSEMBLY.

If an existing sign assembly that is to be removed and relocated is found to not have an existing soil stabilizer plate, or if the soil stabilizer plate and/or anchor is damaged during removal, then a new soil stabilizer plate and/or anchor shall be provided by the Contractor and shall be incidental to the bid item REMOVE AND RELOCATE SIGN ASSEMBLY.

If an existing sign assembly that is being relocated is not currently mounted on a Type D breakaway sign support, but the plans and/or summaries indicate, or wind load standards dictate, a Type D breakaway sign support or a Type D Surface Mount is required, provide and install the specified Type D support as part of the removal and reinstallation efforts. Type D breakaway sign supports shall be paid under the bid item GMSS TYPE D and Type D Surface Mount supports shall be paid under the bid item GMSS TYPE D (SURFACE MOUNT).

If an existing sign that is being relocated is found to have pre-existing damage to one or more of the sign post, the Department will NOT utilize the bid item REMOVE AND RELOCATE SIGN ASSEMBLY for removing and relocating such a sign assembly. Instead, the Department will require the Contractor to install a new sign post(s) at the new location, and pay for the new post(s) under the bid item STEEL POST TYPE I. Detaching the existing sign(s) from the existing, damaged post(s) and attaching the

existing sign(s) to the new sign post(s) shall be incidental to the bid item STEEL POST TYPE I. Any hardware that is needed to complete the installation shall also be incidental to the bid item STEEL POST TYPE I. Removal of the existing damaged post(s) and any other sign components not needed will be paid under the bid item REMOVE SIGN.

- G. Property Damage.** The Contractor shall be responsible for all damage to public and/or private property resulting from the Contractor's activities. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.
- H. Coordination with Utility Companies.** Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs due to the Contractor's operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR'S OPERATIONS. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however, no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.
- I. Caution.** The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions when developing the Unit Bid Prices for each bid item. As such, if the conditions encountered are not in accordance with the information shown, the Department does not guarantee any changes to the Unit Bid Prices nor extension of the contract will be considered. The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.
- J. Control.** Perform all work under the absolute control of the Department. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces, and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties.

Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various



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parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and the Engineer's decision shall be final and binding upon the Contractor.

- K. Clean Up, Disposal of Waste.** Clean up the project area as work progresses. Dispose of all removed concrete, debris, and other waste as per Section 204.03.08. The Department will incur no cost to obtain the disposal sites. The Department will NOT make direct payment for disposal of waste and debris from the project. Existing anchors, signs, posts, and any other hardware or material removed from the site are to become the property of the Contractor. See Special Provision for Waste and Borrow Sites.
- L. Final Dressing, Seeding and Protection.** Grade all disturbed areas to blend with the adjacent roadways features and to provide a suitable seed bed. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.
- M. Erosion Control.** See Special Note for Erosion Control.

#### IV. METHOD OF MEASUREMENT

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Site Preparation.** Other than the bid items listed, the Department will NOT measure Site Preparation for payment, but shall be incidental to the project bid items.
- C. Signs and Reflective Sign Post Panels.** The Department will measure the finished in-place area of signs in Square Feet.
- D. Sign Posts.** The Department will measure the finished in-place length of sign posts in Linear Feet, from the top of the anchor, or top of the sign support, to the top of the sign post. Laps, cutoffs, excess, and waste will NOT be measured for payment.
- E. Type D Breakaway Sign Supports.** The Department will measure Type D breakaway sign supports as Each support installed.
- F. Type D Surface Mounts.** The Department will measure Type D Surface Mounts as Each surface mount installed.
- G. Class A Concrete for Signs.** The Department will measure the Class A Concrete used in conjunction with Type D breakaway sign support installations in Cubic Yards. Any concrete that is required as backfill due to hitting rock during a standard installation shall be incidental to the bid item STEEL POST TYPE I, and soil stabilizers will not be required.
- H. Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection.** The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental. Seeding and Protection shall be measured according to Section 212.

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- I. **Erosion Control.** See Special Note for Erosion Control.
- J. **Remove Sign.** The Department will consider all signs attached to one or more connected posts as a single sign. The Department will measure as Each sign assembly removed and NOT each individual sign removed.
- K. **Remove & Relocate Sheet Signs.** The Department will measure sheet signs removed from an existing sign post and reinstalled on a new sign post as Each sheet sign removed and reinstalled. as indicated in the contract documents, or as directed by the Engineer. The new sign post shall be measured as indicated in paragraph D. of this section.
- L. **Remove & Relocate Sign Assemblies.** The Department will consider all signs attached to one or more connected posts as a single sign assembly. When the contract documents indicate that an existing sign assembly is to be removed from its existing location and reinstalled in a new location, the Department will measure and pay for "Remove and Relocate Sign Assembly" as each sign assembly removed and relocated; NOT each individual sign removed and relocated.
- M. **Items Provided by KYTC.** The Department will NOT measure for payment the installation of signs and/or surface mounts provided by KYTC. These activities shall be incidental to the bid item STEEL POST TYPE I.

V. **BASIS OF PAYMENT**

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. **Signs and Reflective Sign Post Panels.** The Department will make payment for the completed and accepted quantities under the bid item SBM ALUM SHEET SIGNS .125 IN or .080 IN. The Department will consider payment full compensation for all work and incidentals necessary to install the signs, as required by these notes and the details found elsewhere in the plans/proposal, at the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.
- C. **Sign Posts.** The Department will make payment for the completed and accepted quantities under the bid item STEEL POST TYPE I. The Department will consider payment full compensation for all work and incidentals necessary to install the sign posts as required by these notes and the details found elsewhere in the plans/proposal.
- D. **Type D Breakaway Sign Supports.** The Department will make payment for the completed and accepted quantities under the bid item GMSS TYPE D. The Department will consider payment full compensation for all work and incidentals necessary to install the Type D breakaway sign supports as required by Standard Drawing RGX-065, current edition.
- E. **Type D Surface Mounts.** The Department will make payment for the completed and accepted quantities under the bid item GMSS TYPE D (SURFACE MOUNT). The Department will consider

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payment full compensation for all work and incidentals necessary to install the Type D surface mounts according to all applicable manufacturer requirements.

NOTE: The permissible Type D Surface Mount alternative is: Kleen Break Model 425 for Surface Mount Concrete Installations by Xcessories Squared of Auburn, IL

- F. Class A Concrete for Signs.** The Department will make payment for the completed and accepted quantities, used in conjunction with Type D breakaway sign support installations, under the bid item CLASS A CONCRETE FOR SIGNS. The Department will consider payment full compensation for all work and incidentals necessary to install the concrete as required by Standard Drawing RGX-065, current edition.
- G. Remove Sign.** The Department will make payment for the completed and accepted quantities under the bid item REMOVE SIGN. The Department will consider payment full compensation for all work and incidentals necessary to remove the existing signs, posts, anchors, and any other sign material or hardware, from the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.
- H. Remove & Relocate Sheet Signs.** The Department will make payment for the completed and accepted quantities under the bid item REMOVE AND RELOCATE SHEET SIGNS. Any hardware that is needed to complete the removal and reinstallation shall be incidental. The Department will consider payment full compensation for all work and incidentals necessary to remove and reinstall the existing sheet signs as indicated on the plans, summaries, and/or as directed by the Engineer.
- I. Remove & Relocate Sign Assemblies.** The Department will make payment for the completed and accepted quantities under the bid item REMOVE AND RELOCATE SIGN ASSEMBLY. Any hardware that is needed to complete the removal and reinstallation shall be incidental. The Department will consider payment full compensation for all work and incidentals necessary to remove and reinstall the existing sign assembly as indicated on the plans, summaries, and/or as directed by the Engineer.
- J. Erosion Control.** See Special Note for Erosion Control.



ANDY BESHEAR  
GOVERNOR

REBECCA W. GOODMAN  
SECRETARY

**ENERGY AND ENVIRONMENT CABINET**  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON  
COMMISSIONER

300 SOWER BOULEVARD  
FRANKFORT, KENTUCKY 40601

November 10, 2022

Danny Peake  
Kentucky Transportation Cabinet (KYTC)  
200 Mero St  
Frankfort, KY 40622

Re: §401 Water Quality Certification  
Letter of Permission No.: WQCLOP2022-126-7  
KY 185 Spot Improvements  
AI No.: 120877; Activity ID: APE20220001  
KYTC Item No.: 3-110.30  
USACE ID No.: LRL-2016-668-ncc  
UTs to Indian Creek and Wetlands  
Warren, Kentucky

Dear Mr. Peake:

Pursuant to Section 401 of the Clean Water Act (CWA) and 40 CFR 121.7(c), the Commonwealth of Kentucky certifies it has reasonable assurances that applicable water quality standards under Kentucky Administrative Regulations Title 401, Chapter 10, established pursuant to Sections 301, 302, 303, 304, 306, and 307 of the CWA, will not be violated by the above referenced project provided that the U.S. Army Corps of Engineers authorizes the activity under a federal license or permit, and the attached conditions are met. An individual Water Quality Certification is not necessary for this activity provided that this project has satisfies the Transportation Letter of Permission from the U.S. Army Corps of Engineers (Letter of Permission for Transportation Projects, Corps ID No. LRL-2006-259, issued October 03, 2007 and revised October 28, 2010 and September 11, 2020) and all conditions of the attached Water Quality Certification - Letter of Permission Authorizing Transportation Projects are met. If construction does not commence within five years of the date of this letter, this certification will become void.

This letter transmits to you a copy of our Water Quality Certification (WQC) for the Letter of Permission Authorizing Transportation Projects for the Kentucky Transportation Cabinet – KY 185 Spot Improvements in Warren County, Kentucky, in accordance with plans included in the “Application for Permit to Construct Across or Along a Stream and/or Water Quality Certification” received July 5, 2022, Pre-Filing Meeting Request received July 5, 2022, application package received July 5, 2022, Certification Request received November 9, 2022, and updated tables and statements received on October 14, 2022, including impacts to 1,004 linear feet of ephemeral streams, 280 linear feet of intermittent streams, 311 linear feet of perennial streams, and 0.31 acres of wetland. Compensatory mitigation will be accomplished through purchasing 1,273 stream AMUs and 0.6 wetland AMUs from an approved mitigation bank or purchasing 1,528 stream AMUs and 0.7 wetland AMUs from an approved in-lieu fee program. A receipt of purchase must be submitted to the Kentucky 401 Water Quality Certification Section before construction begins.

Although an Individual WQC is not needed, other permits from the Division of Water may be required. If the project will disturb one acre or more of land, or is part of a larger common plan of development or sale that will ultimately disturb one acre or more of land, a Kentucky Pollution Discharge Elimination System (KPDES) stormwater permit shall be required from the Surface Water Permits Branch. This permit requires the development of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must include erosion prevention and sediment control measures. Contact: Surface Water Permits Branch (SWPB) Support (502-564-3410 or [SWPBsupport@ky.gov](mailto:SWPBsupport@ky.gov)). If the project needs to develop a Groundwater Protection Plan (GPP), impacts a Wellhead Protection Areas (WHPAs) or Sinkhole contact the Watershed Management Branch (502-564-3410).

All future correspondence on this project must reference **AI No. 120877**. Please contact Wesley Harrod by phone at 502-782-6589 or email at [Wesley.Harrod@ky.gov](mailto:Wesley.Harrod@ky.gov) if you have any questions.

Sincerely,



---

**Samantha Vogeler, Supervisor**  
Water Quality Certification Section  
Kentucky Division of Water

SV:WH  
Attachment

cc: Adam Michels, KYTC: Frankfort (via email: [adam.michels@ky.gov](mailto:adam.michels@ky.gov))  
Andrew Logsdon, KYTC: Frankfort (via email: [Andrew.Logsdon@ky.gov](mailto:Andrew.Logsdon@ky.gov))  
Dave Harmon, KYTC: Frankfort (via email: [Dave.Harmon@ky.gov](mailto:Dave.Harmon@ky.gov))  
Norma Condra, USACE: Louisville District (via email: [Norma.C.Condra@usace.army.mil](mailto:Norma.C.Condra@usace.army.mil))  
Lee Andrews, USFWS: Frankfort (via email: [kentuckyes@fws.gov](mailto:kentuckyes@fws.gov))  
Madeline Pruszenski, Green and Tradewater Rivers Basin Coordinator (via email: [madeline.pruszenski@ky.gov](mailto:madeline.pruszenski@ky.gov))  
Bill Baker, Bowling Green Regional Field Office (via email: [william.baker@ky.gov](mailto:william.baker@ky.gov))  
Seth Bishop, RES (via email: [sbishop@res.us](mailto:sbishop@res.us))

## **Water Quality Certification -- Letter of Permission Authorizing Transportation Projects (LRL-2006-259-pgj- Date: 11 Sept 2020)**

This Water Quality Certification is issued December 28, 2020, by the Kentucky Division of Water, 401 Water Quality Certification Program in conformity with the requirements of Sections 301, 302, 304, 306 and 401, as amended (33 U.S.C. §1341), of the Clean Water Act, as well as Kentucky Statute KRS 224.16-050 and Kentucky Administrative Regulations Title 401, Chapter 9 and 10.

The Commonwealth of Kentucky hereby certifies under Section 401 of the Clean Water Act (CWA) that it has reasonable assurances that applicable water quality standards under Kentucky Administrative Regulations Title 401, Chapter 10, established pursuant to Sections 301, 302, 304, 306 and 307 of the CWA, will not be violated for the activities covered by this general certification, provided that the conditions in this general certification are met. Activities that do not meet the conditions of this certification require an Individual Section 401 Water Quality Certification.

For this and all permits, the definition of surface water is as per 401 KAR 10:001 Chapter 10, Section 1(80): Surface Waters mean those waters having well-defined banks and beds, either constantly or intermittently flowing; lakes and impounded waters; marshes and wetlands; and any subterranean waters flowing in well-defined channels and having a demonstrable hydrologic connection with the surface. Lagoons used for waste treatment and effluent ditches that are situated on property owned, leased, or under valid easement by a permitted discharger are not considered surface waters of the commonwealth.

As required by 40 CFR Part 121 – State Certification of Activities Requiring a Federal License or Permit, all conditions include a statement explaining why the condition is necessary to assure that any discharge authorized under the general permit will comply with water quality requirements and a citation to federal, state, or tribal law that authorizes the condition. The statements and citations are included with each condition. The statements are written entirely at the end of the certification under the section *Statements of Necessity*.

In addition to all the restrictions and conditions of the U.S. Army Corps of Engineers, Louisville District Letter of Permission Issuance (LRL-2006-259-pgj) hereby incorporated into this certification (included herein), the following 401 Water Quality Certification criteria applies to all transportation projects certified under a Certified Letter of Permission issued by the Kentucky Division of Water, 401 Water Quality Certification Program:

1. The Kentucky Division of Water shall be notified of the scheduled start of construction activities at least two weeks before the start of construction and upon the substantial completion of construction no later than two week post-construction. [Statement G and citations KRS 224.10-100, KRS 224.70-110, 401 KAR 10:030 Section 1; and 401 KAR 10:031 Section 2(1)(a)]
2. As-built drawings shall be submitted to the Kentucky Division of Water within 90 days after substantial completion of construction. [Statement H and citations KRS 224.10-100, KRS 224.70-110, 401 KAR 10:030 Section 1; and 401 KAR 10:031 Section 2(1)(a)]

## Certification of Transportation Letter of Permission

3. A copy of the receipt for purchase of credits for compensatory mitigation shall be submitted to the Division of Water prior to any construction activity for projects requiring mitigation. [Statement I and citations KRS 224.10-100, KRS 224.70-110, 401 KAR 10:030 Section (1); and 401 KAR 10:031 Section 2(1)(a)]
4. Activities occurring within surface waters identified by the Kentucky Division of Water as designated or candidate Outstanding State or National Resource Waters, Cold Water Aquatic Habitat, or Exceptional Waters are not authorized under this General Certification and require an Individual Certification. [Statement A and citations KRS 224.70-110, 401 KAR 10:030, Section 1(1), Section 1(2), & Section 1(3); and 401 KAR 10:031, Section 4(2) & Section 8]
5. The activity will not occur within surface waters identified as perpetually-protected mitigation sites (e.g., deed restriction or conservation easement). [Statement C and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3); and 40 C.F.R. 230.97]
6. The Kentucky Division of Water may require submission of a formal application for an individual certification for any project if the project has been determined to likely have a significant adverse effect upon water quality or degrade the waters of the Commonwealth so that existing uses of the water body or downstream waters are precluded. [Statement A and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
7. The proposed relocation of an existing stream or channel will be designed and constructed to ensure the stability of the relocated stream or channel. Stream habitat enhancements, such as bioengineering methods and/or best management practices for protecting water quality will be considered, on a case-by-case basis, during the design process. Documentation must be provided if stream habitat enhancements will not be used for the proposed stream relocation. [Statement A and B and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
8. Erosion and sedimentation pollution control plans and Best Management Practices must be designed, installed, and maintained in effective operating condition at all times during construction activities so that violations of state water quality standards do not occur. [Statements A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
9. Sediment and erosion control measures, such as check-dams constructed of any material, silt fencing, hay bales, etc., shall not be placed within surface waters of the Commonwealth, either temporarily or permanently, without prior approval by the Kentucky Division of Water's Water Quality Certification Section. If placement of sediment and erosion control measures in surface waters is unavoidable, design and placement of temporary erosion control measures shall not be conducted in such a manner that may result in instability of streams that are adjacent to, upstream, or downstream of the structures. All sediment and erosion control devices shall be removed and the natural grade restored within the completion timeline of the activities. [Statements A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]

## Certification of Transportation Letter of Permission

10. Measures shall be taken to prevent or control spills of fuels, lubricants, or other toxic materials used in construction from entering the watercourse. [Statements A and D and citations [KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
11. Removal of riparian vegetation shall be limited to that necessary for equipment access. [Statements A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
12. To the maximum extent practicable, all in-stream work under this certification shall be performed under low-flow conditions [Statements A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
13. Heavy equipment (e.g. bulldozers, backhoes, draglines, etc.), if required for this project, should not be used or operated within the stream channel. In those instances in which such in-stream work is unavoidable, then it shall be performed in such a manner and duration as to minimize turbidity and disturbance to substrates and bank or riparian vegetation. [Statements A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
14. Any fill shall be of such composition that it will not adversely affect the biological, chemical, or physical properties of the receiving waters and/or cause violations of water quality standards. If rip-rap is utilized, it should be of such weight and size that bank stress or slump conditions will not be created because of its placement. [Statements A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
15. If there are water supply intakes located downstream that may be affected by increased turbidity and suspended solids, the permittee shall notify the operator when such work will be done. [Statement E and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
16. Should evidence of stream pollution or jurisdictional wetland impairment and/or violations of water quality standards occur as a result of this activity (either from a spill or other forms of water pollution), the Kentucky Division of Water shall be notified immediately by calling (800) 928-2380. [Statement A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]

This Water Quality Certification does not have an expiration date, however if the need for changes develop or if the U.S. Army Corps of Engineers, Louisville District makes modifications to the Letter of Permission (LRL-2006-259-pgj- Date: 11 Sept 2020) then a new certification may be issued.



## Certification of Transportation Letter of Permission

### Statements of Necessity:

- A. This condition is necessary to protect waters categorized under the anti-degradation policy to protect the designated and existing uses and to maintain the associated water quality criteria necessary to protect these water resources.
- B. This condition is necessary to protect existing uses and the level of water quality necessary to protect those existing uses shall be assured in impaired water.
- C. This condition is necessary for long-term protection of compensatory mitigation sites.
- D. This condition is necessary to provide for the prevention, abatement, and control of all water pollution and to conserve water resources for legitimate uses, safeguard from pollution the uncontaminated waters, prevent the creation of any new pollution, and abate any existing pollution.
- E. This condition is necessary to protect domestic water supply use.
- F. This condition is necessary to evaluate, develop, and improve best-management practices in conservation plans, compliance plans, and forest stewardship management plans; establish statewide and regional agriculture water quality plans; and otherwise promote soil and water conservation activities that protect waters of the Commonwealth from the adverse impacts of agriculture operations within the Commonwealth.
- G. This condition is necessary for the Division of Water to be informed of the ongoing activity for the purposes of site visits to ensure implementation of Kentucky Regulatory Statutes and Administrative Regulations; the Division will monitor the environment to afford more effective and efficient control practices, to identify changes and conditions in ecological systems, and to warn of emergency conditions.
- H. This condition is necessary for the Division of Water to monitor the environment to afford more effective and efficient control practices, to identify changes and conditions in ecological systems, and to warn of emergency conditions.
- I. This condition is necessary to allow the impact to occur. Compensatory mitigation is the method to approve impacts and entire loss of a water resource. The Division can approve necessary impacts and loss based on the confidence that the resource will be replaced and not taken from the watershed entirely. Compensatory mitigation is the method of compliance for the Commonwealth's water quality standards.

**Violation of Kentucky state water quality standards may result in civil penalties and remediation actions.**



KENTUCKY TRANSPORTATION CABINET  
Department of Highways  
DIVISION OF ENVIRONMENTAL ANALYSIS  
**ENVIRONMENTAL PROJECT IMPACTS REEVALUATION**

TC 58-49  
Rev. 10/2019  
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**1. PROJECT SUMMARY FOR**

<b>Item #:</b>	<b>Project Sponsor:</b>
<b>Route(s):</b>	<b>County:</b>
<b>Project Description:</b>	

**2. ENVIRONMENTAL DETERMINATION**

Functional Area	Original Determination	Reevaluation for	Comments/Commitments/ Mitigation
Public and Resource Agency Controversy			
Total acreage of fee simple ROW			
Number of Total Relocations			
Environmental Justice Impacts			
Section 106: Architectural Historic			
Section 106: Archaeological Resources			
Section 4(f)			
Section 6(f)			
Noise			
Air Quality Impacts			
Hazardous Materials Impacts			
Section 7: T&E Species			
Anticipated Feet of Stream Impacts			
Anticipated Acreage of Wetland Impacts			
Anticipated Permits			
Other:			
Other:			
Other:			

Based on the criteria listed above, in review of the most recent set of project plans, the subject project is determined to be considered a \_\_\_\_\_.

**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 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.

 _____ District Environmental Coordinator	_____ Date	 _____ Project Manager	5/28/2024 _____ Date
_____ Environmental Project Manager	_____ Date	_____ Director of Environmental Analysis	_____ Date
_____ Recommended by FHWA	_____ Date	_____ Federal Highway Administration	_____ Date



KENTUCKY TRANSPORTATION CABINET  
Department of Highways  
DIVISION OF ENVIRONMENTAL ANALYSIS  
**ENVIRONMENTAL PROJECT IMPACTS REEVALUATION**

TC 58-49  
Rev. 10/2019  
Page 1 of 1

**1. PROJECT SUMMARY FOR**

<b>Item #:</b>	<b>Project Sponsor:</b>
<b>Route(s):</b>	<b>County:</b>
<b>Project Description:</b>	

**2. ENVIRONMENTAL DETERMINATION**

Functional Area	Original Determination	Reevaluation for	Comments/Commitments/ Mitigation
Public and Resource Agency Controversy			
Total acreage of fee simple ROW			
Number of Total Relocations			
Environmental Justice Impacts			
Section 106: Architectural Historic			
Section 106: Archaeological Resources			
Section 4(f)			
Section 6(f)			
Noise			
Air Quality Impacts			
Hazardous Materials Impacts			
Section 7: T&E Species			
Anticipated Feet of Stream Impacts			
Anticipated Acreage of Wetland Impacts			
Anticipated Permits			
Other:			
Other:			
Other:			

Based on the criteria listed above, in review of the most recent set of project plans, the subject project is determined to be considered a

**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 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.

 _____ District Environmental Coordinator	_____ Date	 _____ Project Manager	_____ Date
 _____ Environmental Project Manager	11/27/23 _____ Date	 _____ Director of Environmental Analysis	11/28/23 _____ Date
_____ Recommended by FHWA	_____ Date	_____ Federal Highway Administration	_____ Date



**Andy Beshear**  
Governor

**TOURISM, ARTS AND HERITAGE CABINET  
KENTUCKY HERITAGE COUNCIL**

**THE STATE HISTORIC PRESERVATION OFFICE**

410 HIGH STREET  
FRANKFORT, KENTUCKY 40601  
PHONE (502) 564-7005  
FAX (502) 564-5820  
[www.heritage.ky.gov](http://www.heritage.ky.gov)

**Craig A. Potts**  
Executive Director  
& State Historic  
Preservation Officer

**Mike Berry**  
Secretary

March 30, 2020

Mr. Daniel R. Peake  
Division of Environmental Analysis  
Kentucky Transportation Cabinet  
200 Mero Street  
Frankfort, KY 40622

**Re: Architectural Viewshed Survey for the Proposed  
Improvements to KY 185 Warren County, Kentucky  
KYTC Item No. 3-110**

Dear Mr. Peake,

Thank you for your submission of the addendum letter from Wood Environment and Infrastructure Solutions, Inc. and associated maps for the above-listed project which is pursuant to Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. Sec. 470f) and implementing regulations at 36 C.F.R. Part 800.

Our office understands that the selected design reduced the construction and easement designs within the previously approved APE and that the cemetery site (WA-237) will be avoided.

Based on an email dated 3/30/2020 from Stephanie Lechert of your staff we understand that KYTC has determined all of the resources in the report are **Not Eligible** and have determined a finding of **No Adverse Effect**.

Based on our review, our office concurs that the resources do not appear to retain sufficient integrity or significance and as a result, we concur with your official determination that these historic resources appear to be **Not Eligible** for listing on the NRHP and with your determination of **No Adverse Effect**.

Should you have any questions, please feel free to contact Matt Yagle of my staff at [matthew.yagle@ky.gov](mailto:matthew.yagle@ky.gov).

Sincerely,

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

CP: my, KHC #57286  
CC: Stephanie Lechert

KentuckyUnbridledSpirit.com



An Equal Opportunity Employer M/F/D

cc: Michael W. French (AMEC)  
Dr. George Crothers (UK-OSA)  
James Lee Hixon (KYTC-DEA)

MD:prj

Mark Dennen, Executive Director  
Kentucky Heritage Council and  
State Historic Preservation Officer

Sincerely,  
*Mark*

If you have any questions, please do not hesitate to contact Phillip Johnson of my staff at (502) 564-7005 ext 122.

Thank you for submitting final copies of the above referenced archaeological report (received November 9, 2010). The author reports the documentation of ten previously unidentified archaeological sites within the project APE (15Wa167-15Wa176), and recommends that four of those sites (15Wa168, 15Wa171, 15Wa175, and 15Wa176) are potentially eligible for the NRHP. The author recommends no further archaeological evaluation of sites 15Wa167, 15Wa169, 15Wa170, 15Wa172, 15Wa173, and 15Wa174, but recommends avoidance or Phase II evaluation for sites 15Wa168, 15Wa171, 15Wa175, and 15Wa176. I concur with the author's recommendations, and in the event that impact to sites 15Wa168, 15Wa171, 15Wa175, or 15Wa176 cannot be avoided look forward to receiving the Phase II NRHP evaluation of those potentially eligible sites.

Dear Mr. Waldner,

Re: Phase I Archaeological Intensive Survey for the Proposed KY 185 Realignment Right-of-Way in Warren County. Item Number: 3-110.00 by Michael French, AMEC Earth and Environmental, Louisville, KY 40299

Mr. David Waldner, P. E., Director  
Division of Environmental Analysis  
Kentucky Transportation Cabinet  
200 Mero Street  
Frankfort, KY 40622

November 17, 2010

THE STATE HISTORIC PRESERVATION OFFICE  
300 WASHINGTON STREET  
FRANKFORT, KENTUCKY 40601  
PHONE (502) 564-7005  
FAX (502) 564-5820  
www.heritage.ky.gov

MARK DENNEN  
EXECUTIVE DIRECTOR AND  
STATE HISTORIC PRESERVATION OFFICER

**FILE COPY**

MARCHETA SPARROW  
SECRETARY

TOURISM, ARTS AND HERITAGE CABINET  
KENTUCKY HERITAGE COUNCIL

STEVEN L. BESHEAR  
GOVERNOR



19 NOV 10 AM 10:48



**MATTHEW G. BEVIN**  
GOVERNOR

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

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**CRAIG A. POTTS**  
EXECUTIVE DIRECTOR  
& STATE HISTORIC  
PRESERVATION OFFICER

November 25, 2019

Mr. Daniel R. Peake, Director  
Division of Environmental Analysis  
Kentucky Transportation Cabinet  
200 Mero Street  
Frankfort, Kentucky 40601

Re: [Revised] *Phase I Archaeological Survey for Proposed Revised Sections of KY 185, Spot 1 and Spot 5, Warren County, Kentucky*  
KYTC Item No. 3-110.00  
OSA Registration No.: FY19-9864  
By Tim Reynolds, Elise Hargis, Kim Simpson, and Stephen Mocas

Dear Mr. Peake,

Thank you for three copies of the above-referenced revised archaeology report. The report discusses the results of a Phase I archaeological survey of the revised Area of Potential Effect (APE) for the proposed KY 185 new road corridor construction. Revisions were made based upon combined agency comments following concurrent review of the report between members of our respective staffs. Field methods include pedestrian survey and shovel test excavation of approximately 105.36 acres. Five new archaeological sites and four isolated finds are identified during this investigation. The boundaries of site 15Wa171 are expanded.

Site 15Wa202 is multicomponent and contains undiagnostic lithics and a scatter of historic debris. Sites 15Wa203, 15Wa204, 15Wa205, and 15Wa206 are historic sites. Based on the lack of integrity and research potential, the authors do not recommend the portions of these archaeological sites or the four isolated finds within the APE as eligible for listing on the National Register of Historic Places (NRHP). The Kentucky Transportation Cabinet (KYTC) concurs with these recommendations.

Site 15Wa171 was recorded in 2010 as part of this project. It contains a historic artifact scatter and a possible buried Late Woodland component, and my office concurred with its potential eligibility for listing on the NRHP. This recent survey extended the site boundary to the south where historic and prehistoric material are identified. This expanded portion of the site is recommended as not eligible for listing on the NRHP by the consultant because it lacks intact cultural stratigraphy or deposits. However, the portion of the site recorded in the 2010 survey is potentially eligible and additional archaeological investigations are warranted. KYTC concurs with these recommendations.

KYTC Item No. 3-110.00  
November 25, 2019  
page 2

The changes in project limits to avoid known graves at the Mount Pleasant Cemetery are reflected in updated maps throughout the revised version of the report. Given the purpose of the project is to provide access to the cemetery, we agree with the KYTC recommendations that the 50-meter avoidance buffer around the cemetery is unnecessary. To prevent impacts from staging, we agree that marking Do Not Disturb on the construction plans where the cemetery is adjacent to but outside the APE is appropriate, especially along the north-side of the segment of the cemetery north of KY 185 where headstones were identified in a wooded area (see Figure 6.23).

After concurrent review with Mr. Carl Shields (DEA), we concur with the findings and recommendations presented by KYTC and accept this report without further revision.

Should you have any questions, please feel free to contact Vanessa Hanvey of my staff at [vanessa.hanvey@ky.gov](mailto:vanessa.hanvey@ky.gov).

Sincerely,



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

CP: VH; KHC # 56258 55116 54878

cc: Carl Shields (KYTC); Dan Davis (KYTC); George Crothers (OSA)



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Kentucky Ecological Services Field Office  
330 West Broadway, Suite 265  
Frankfort, Kentucky 40601  
(502) 695-0468

February 13, 2020

Mr. Danny Peake  
Division of Environmental Analysis  
Kentucky Transportation Cabinet  
200 Mero Street  
Frankfort, Kentucky 40601

Re: FWS 2017-B-0059; KYTC Item No. 3-110, KY 185 Spot Improvements in Warren County, Kentucky

Dear Mr. Peake:

Thank you for your letter and biological assessment (BA) received January 17, 2020, evaluating the potential effects of the subject project proposal on the federally listed gray bat, Indiana bat, northern long-eared bat (NLEB), Price's potato bean, and federally listed mussels. The U.S. Fish and Wildlife Service (Service) has reviewed the information and offers the following comments in accordance with the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

According to the information provided, the proposed project involves improvements of KY 185 in two separate locations north of Bowling Green. The spot 1 improvement is an approximate 1.8-mile route that relocates the roadway southeast of the existing roadway. The spot 2 improvement is an approximate 1.1-mile route that relocates the roadway north of the existing roadway. Impacts to the landscape include typical road construction activities, tree removal for construction access, and grading to allow for proper drainage.

#### **Gray Bats (*Myotis grisescens*)**

Field assessments conducted did not identify any bridges or culverts that could provide potential gray bat roosting habitat within the project corridor. However, one known hibernacula, Pruett Saltpeter Cave, and two potential hibernacula, Cave 8 and Andrews 11 Cave, are present within one half mile of the project. Blasting activities are anticipated within the vicinity of the western entrance of Pruett Saltpeter Cave. Analysis provided in the BA considered the proposed activities and their potential to adversely affect the cave. Potential effects of these activities would be avoided and minimized by conservation measures. The Kentucky Transportation Cabinet (KYTC) will limit blasting to the period when swarming/spring emergence habitat is unoccupied (May 15 – August 15), and use controlled blasting techniques. These blasting techniques control rock fragmentation and damage beyond the area to be removed. Further,



Mr. Danny Peake

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blasting anticipated near the cave would occur in sandstone lithology rather than limestone, and the use of controlled blasting in sandstone avoids impacts to air and water flows into and out of the cave. No impacts to Cave 8 or Andrews 11 Cave are anticipated from the project due to the horizontal and vertical distance of these features from the disturbance limits and nearest blasting. Therefore, the proposed project is not likely to impact gray bat hibernacula or roosting habitat.

Streams in the project area may provide potential foraging and commuting habitat for the gray bat. Due to the temporary nature of the disturbance that may occur during construction, and the implementation of minimization measures discussed in the BA (section 5.5) to limit effects to streams, we believe that impacts to gray bat foraging habitat and resources would be insignificant. For these reasons, we concur with the determination that the proposed action may affect, but is not likely to adversely affect the gray bat.

### **Indiana Bats (*Myotis sodalis*)**

#### **Northern Long-eared Bats (*Myotis septentrionalis*)**

The proposed project requires removal of approximately 39.98 acres of known swarming 2 forested habitat for the Indiana bat and NLEB. No bridges or culverts were identified that could provide potential roosting habitat for these species within the project corridor. Pruett Saltpeter Cave is also a known hibernacula for the Indiana bat and NLEB. However, potential adverse effects on these species associated with known or potential hibernacula are unlikely to occur for the same reasons as discussed above for the gray bat. The KYTC believes that the Indiana bat and NLEB are reasonably certain to utilize forested habitat within the project area, and has determined that the action “may affect, is likely to adversely affect” the both species. KYTC proposes to account for potential adverse effects to these species and their habitat through the processes identified in the 2015 Interim Programmatic Agreement for Forest Dwelling bats between the Federal Highway Administration (FHWA), KYTC, and the Service’s Kentucky Field Office. The Service concurs with KYTC’s effects determination for the Indiana bat and NLEB, and agrees with the proposed ESA compliance process.

### **Price’s Potato Bean (*Apios priceana*)**

A presence/absence survey for Price’s potato bean was conducted on July 11, 2019 during the typical flowering period for this species. Although some suitable habitat for these species exists within the project area, negative results of the surveys indicate that the species is unlikely to occur in the project vicinity. Based on our review of the information provided, the Service concurs with KYTC’s effects determination that the proposed action may affect, but is not likely to adversely affect Price’s potato bean.

### **Federally Listed Mussel Species**

No suitable habitat for the federally listed rabbitsfoot (*Theliderma cylindrica*) clubshell (*Pleurobema clava*), fanshell (*Cyprogenia stegaria*), northern riffleshell (*Epioblasma torulosa rangiana*), pink mucket (*Lampsilis abrupta*), purple catspaw pearlymussel (*Epioblasma obliquata*), rough pigtoe (*Pleurobema plenum*), sheepsnose (*Plethobasus cyphus*), orangefoot pimpleback (*Plethobasus cooperianus*), ring pink (*Obovaria retusa*), spectaclecase (*Margaritifera monodonta*) and snuffbox (*Epioblasma triquetra*) was identified within the

Mr. Danny Peake

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project corridor. The unnamed perennial tributary of Indian Creek is considered unsuitable due to its small size, limited velocity/depth regimes, and poor quality.

Although the Green River is not located within the project corridor, the northern extent of the proposed project is located within the watershed. In addition, sinkholes in the northern portion presumably drain to the Green River. Potential effects (i.e., excess sedimentation downstream) would be minimized by a site-specific sediment and erosion control plan and measures stated in Section 5.5 of the BA. Based on our review of the information provided, the Service concurs with the effects determination that the proposed action may affect, but is not likely to adversely affect the aforementioned mussel species.

**Conclusion**

In view of these findings, we believe that the requirements of section 7 of the Endangered Species Act have been fulfilled for this project. Your obligations under section 7 must be reconsidered, however, if: (1) new information reveals that the proposed action may affect listed species in a manner or to an extent not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated.

If you have any questions regarding the information that we have provided, please contact Phil DeGarmo at (502) 695-0468 extension 110 or [Phil\\_DeGarmo@fws.gov](mailto:Phil_DeGarmo@fws.gov).

Sincerely,

for Virgil Lee Andrews, Jr.  
Field Supervisor

cc: Mr. Dave Harmon, KYTC, Frankfort (electronic)  
Mr. Andrew Logsdon, KYTC, Frankfort (electronic)



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Kentucky Ecological Services Field Office  
330 West Broadway, Suite 265  
Frankfort, Kentucky 40601  
(502) 695-0468

June 20, 2023

Danny Peake  
Division of Environmental Analysis  
Kentucky Transportation Cabinet  
200 Mero Street  
Frankfort, Kentucky 40601

Re: FWS 2022-0020392, 2017-B-0059, 22-0082346; KYTC Item No. 3-110.30, 3-110.40, 10-80100,  
Northern Long-eared Bat Re-Consultation in Multiple Counties, Kentucky

Dear Danny Peake:

The U.S. Fish and Wildlife Service's (Service) Kentucky Field Office (KFO) has reviewed the above referenced project information and request for concurrence received on May 23, 2023. Additional information was received via email on June 20, 2023. The KFO offers the following comments in accordance with the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

#### Project Description

The Kentucky Transportation Cabinet (KYTC) wishes to re-consult on potential effects of the subject projects on the northern long-eared bat (*Myotis septentrionalis*) (NLEB). Re-consultation is due to the up-listing of the NLEB from threatened to endangered. The KFO has previously reviewed the subject projects and provided written concurrence on use of a 4(d) rule to address ESA compliance relative to the NLEB. Project information and a summary of the KFO's approvals for these projects are provided in the table below.

Project Name	County	KYTC Item	USFWS ID	USFWS Approval
KY 185 Spot Improvement 6	Warren	3-110.40	22-0020392	May 6, 2022
KY 185 Spot Improvement 1	Warren	3-110.30	2017-B-0059	February 13, 2020
Wendell Ford Airport Access Road	Perry	10-80100.00	22-0082346	December 27, 2022

#### Federally Listed Species

The KYTC have determined that the proposed action has the potential to affect the NLEB.

#### Northern Long-eared Bats

The original biological assessment for each of the proposed projects addressed potential impacts to hibernacula for the Indiana bat. Potential Indiana bat and NLEB hibernacula are similar and, in some cases, both species use the same cave. Because of the similarities, the habitat evaluated as potential Indiana bat hibernacula would also include any potential NLEB hibernacula. The KFO concurred with the findings of all three projects that potential hibernacula for the Indiana bat are not likely to be adversely affected. Therefore, we also concur that these projects are not likely to adversely affect NLEB hibernacula.

Mr. Danny Peake

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The KYTC utilized the standing analysis that supports the Service's Information for Planning and Consultation (IPaC) Kentucky Endangered Species Determination Key for NLEBs to address potential impacts to summer roosting habitat. Based on the IPaC determination key for NLEBs, KYTC determined that the proposed projects are not likely to adversely affect NLEB summer roosting habitat. As a conservation measure, the KYTC will not clear trees during the maternity season of June 1 – July 31. Based on these factors, the KFO agrees with the KYTC's analysis, and we concur with the determination that the proposed actions may affect but are not likely to adversely affect the NLEB.

**Conclusion**

In view of these findings, we believe that the requirements of section 7 of the Endangered Species Act have been fulfilled for this project. Your obligations under section 7 must be reconsidered, however, if: (1) new information reveals that the proposed action may affect listed species in a manner or to an extent not previously considered, (2) the proposed action is subsequently modified to include activities, which were not considered during this consultation, or (3) new species are listed, or critical habitat designated.

If you have any questions regarding the information that we have provided, please contact Phil DeGarmo at (502) 695-0468 extension 46110 or [Phil\\_DeGarmo@fws.gov](mailto:Phil_DeGarmo@fws.gov).

Sincerely,

Virgil Lee Andrews, Jr.  
Field Supervisor

cc: Andrew Logsdon, KYTC, Frankfort

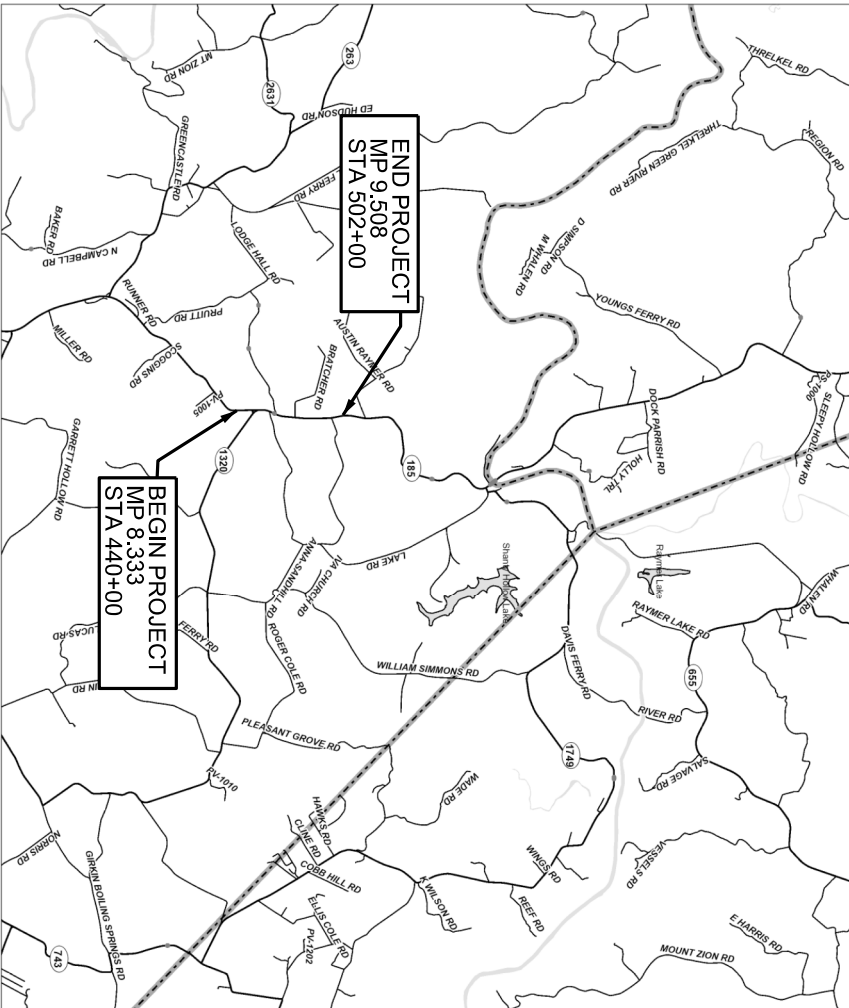
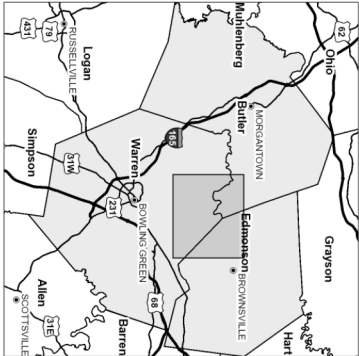
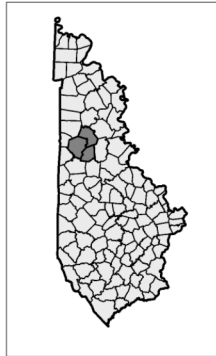
# Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS

## WARREN COUNTY

### KY 185

### HSIP 5074 (010)

COUNTY OF	ITEM NO.
WARREN	3-9024.00



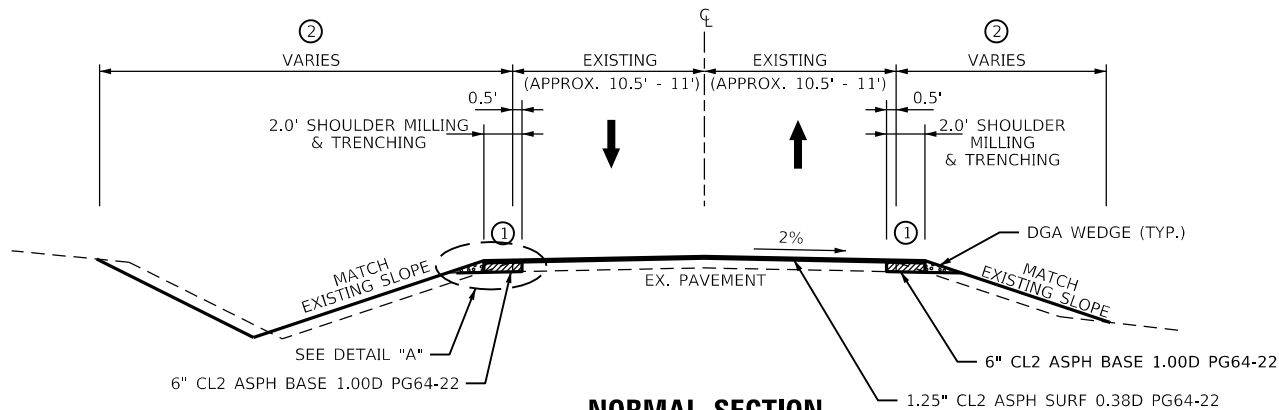
LAYOUT MAP  
NOT TO SCALE

VICINITY MAP

COUNTY OF	ITEM NO.
WARREN	3-9024.00

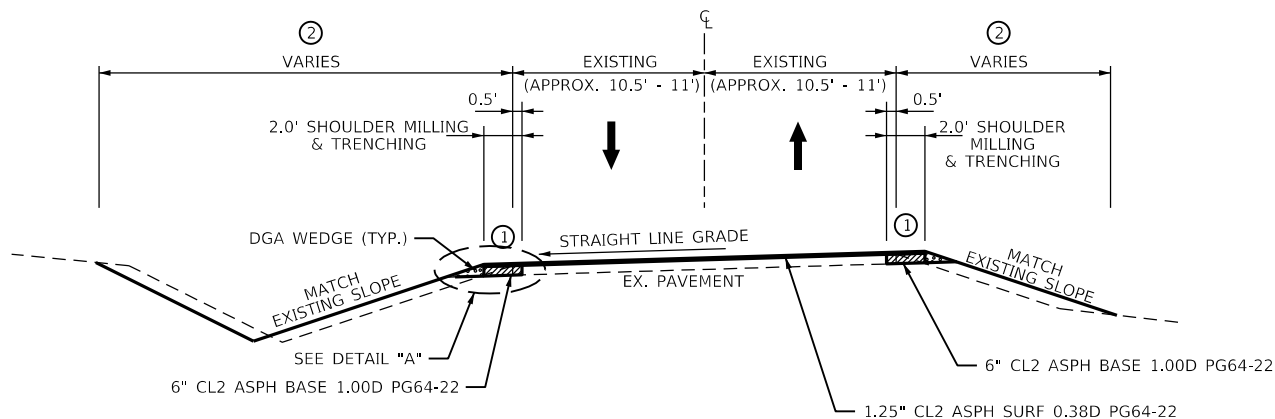
# TYPICAL SECTIONS

## PAVEMENT WIDENING



### NORMAL SECTION

STA. 440+00.00 TO STA. 453+25.69  
 STA. 458+30.52 TO STA. 462+77.57  
 STA. 467+47.30 TO STA. 479+41.74  
 STA. 482+56.56 TO STA. 494+37.00  
 STA. 497+76.14 TO STA. 502+00.00

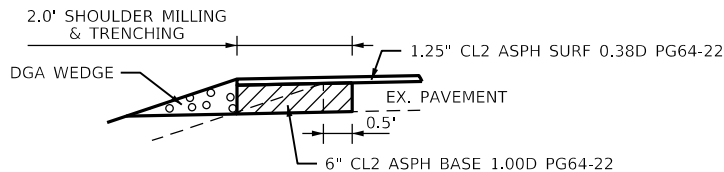


### SUPERELEVATED SECTION

STA. 453+25.69 TO STA. 458+30.52 (RIGHT)  
 STA. 462+77.57 TO STA. 467+47.30 (LEFT)  
 STA. 479+41.74 TO STA. 482+56.56 (LEFT)  
 STA. 494+37.00 TO STA. 497+76.14 (LEFT)

#### NOTES:

- ① SEE SPECIAL NOTE FOR SHOULDER MILLING - TRENCHING
- ② SEE DITCHING AND SHOULDERING AND EMBANKMENT BENCHING DETAILS SHEET
- ③ DOUBLE ASPHALT SEAL COAT REQUIRED FROM EDGE OF SHOULDER TO A POINT 2 FEET DOWN THE DITCH OR FILL SLOPE.



### DETAIL "A"

KY 185 TYPICAL SECTION

NOT TO SCALE

GENERAL SUMMARY - HSIP

Item	Description	Unit	Quantity
1	DGA BASE	TON	507
100	ASPHALT SEAL AGGREGATE	TON	62
103	ASPHALT SEAL COAT	TON	7.5
190	LEVELING AND WEDGING PG 64-22 ***	TON	268
212	CL 2 ASPH BASE 1.00D PG 64-22	TON	853
301	CL 2 ASPH SURF 0.38D PG 64-22 **	TON	1,340
462	CULVERT PIPE-18 IN	LF	40
464	CULVERT PIPE-24 IN	LF	51
1310	REMOVE PIPE	LF	51
1726	SAFETY BOX INLET-18 IN SDB-1	EACH	1
1727	SAFETY BOX INLET-24 IN SDB-1	EACH	2
1987	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	EACH	18
2159	TEMP DITCH	LF	3000
2160	CLEAN TEMP DITCH	LF	1500
2200	ROADWAY EXCAVATION	CY	166
2230	EMBANKMENT IN PLACE	CY	792
2355	GUARDRAIL-STEEL W BEAM-S FACE A	LF	100
2360	GUARDRAIL TERMINAL SECTION NO 1	EACH	3
2367	GUARDRAIL END TREATMENT TYPE 1	EACH	1
2381	REMOVE GUARDRAIL	LF	857
2403	REMOVE CONCRETE MASONRY (4' X 4' RCBC, STA 442+24)	CY	0.40
2403	REMOVE CONCRETE MASONRY (3' X 3' RCBC, STA 487+24)	CY	0.60
2483	CHANNEL LINING CLASS II	TON	152
2545	CLEARING AND GRUBBING	LS	1
2569	DEMOBILIZATION	LS	1
2625	REMOVE HEADWALL	EACH	8
2650	MAINTAIN & CONTROL TRAFFIC	LS	1
2671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	2
2676	MOBILIZATION FOR MILL & TEXT	LS	1
2677	ASPHALT PAVE MILLING & TEXTURING	TON	146
2697	EDGE LINE RUMBLE STRIPS	LF	12,400
2701	TEMP SILT FENCE	LF	3,000
2703	SILT TRAP TYPE A	EACH	9
2704	SILT TRAP TYPE B	EACH	9
2705	SILT TRAP TYPE C	EACH	9
2706	CLEAN SILT TRAP TYPE A	EACH	9
2707	CLEAN SILT TRAP TYPE B	EACH	9
2708	CLEAN SILT TRAP TYPE C	EACH	9
2726	STAKING	LS	1
5950	EROSION CONTROL BLANKET	SY	1,500
5952	TEMP MULCH	SY	27,556
5953	TEMP SEEDING AND PROTECTION	SY	20,667
5963	INITIAL FERTILIZER	TON	1.4
5964	MAINTENANCE FERTILIZER	TON	0.8
5985	SEEDING AND PROTECTION	SY	26,178
5992	AGRICULTURAL LIMESTONE	TON	16.2
6404	FLEXIBLE DELINEATOR POSTS *	EACH	12
6510	PAVE STRIPING - TEMP PAINT - 4 IN	LF	24,800
6515	PAVE STRIPING - PERM PAINT - 6 IN	LF	24,800
8003	FOUNDATION PREPARATION (4' X 4' RCBC, STA 442+24)	LS	1
8003	FOUNDATION PREPARATION (3' X 3' RCBC, STA 487+24)	LS	1
8100	CONCRETE CLASS A	CY	36.80
8100	CONCRETE CLASS A (FOR INTERMEDIATE PIPE ANCHORS)	CY	7.95
8150	STEEL REINFORCEMENT	LB	2,568
8805	GUARDRAIL-BRIDGE CASE I	LF	86
20748ED	SHOULDER MILLING/TRENCHING	SY	2,558
21134ND	REMOVE-STORE AND REINSTALL SIGN	EACH	27
21802EN	G/R STEEL W BEAM-S FACE (7 FT POST)	LF	638.75
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING	TON	3.3
26131ED	SLOPED AND MITERED HEADWALL-18 IN	EACH	2
26132ED	SLOPED AND MITERED HEADWALL-24 IN	EACH	3

\* NOTE: FLEXIBLE DELINEATORPOSTS TO BE INSTALLED NEAR EACH HEADWALL.

\*\* NOTE: CL2 ASPH SURF 0.38D PG 64-22 QUANTITY INCLUDES AN EXTRA 10% TO BE USED AS DIRECTED BY THE ENGINEER.

\*\*\* NOTE: LEVELING AND WEDGING PG 64-22 FOR USE AS DIRECTED BY THE ENGINEER.

**PAVEMENT WIDENING SUMMARY - HSIP**

Begin		End		Side	Width (ft)	Depth (inches)	Length (LF)	Milling/ Trenching (SY)	Asphalt Base (Tons)	Comments
Mile Point	Station	Mile Point	Station							
8.333	440+00	8.664	457+50	Left	2	6	1750	389	128	
8.769	463+00	9.508	502+00	Left	2	6	3900	867	286	
8.333	440+00	8.710	459+90	Right	2	6	1990	442	146	
8.774	463+30	9.508	502+00	Right	2	6	3870	860	284	
<b>TOTALS</b>							<b>11510 LF</b>	<b>2558 SY</b>	<b>844 TONS</b>	

**PAVEMENT RESURFACING SUMMARY - HSIP**

Begin		End		Side	Width (ft)	Depth (inches)	Length (LF)	Asphalt Surface (SY)	Asphalt Surface (Tons)	Comments
Mile Point	Station	Mile Point	Station							
8.33	440+00	9.51	502+00	Both	25	1.25	6200	17222	1184	
<b>TOTALS</b>							<b>6200 LF</b>	<b>17222 SY</b>	<b>1184 TONS</b>	

Item	Description	Unit	Quantity
212	CL2 Asph Base 1.00D PG64-22	TON	844
20748ED	Shoulder Milling/Trenching	SY	2558
301	CL 2 Asph Surf 0.38D PG 64-22	TON	1184

NOTES: Quantities are carried forward to the General Summary. These item quantities and locations are approximate and are intended to provide a basis for bid. Final locations and quantities will be determined by the contractor and approved by the engineer in the field



## Asphalt Pavement Milling and Texturing Summary HSIP - FD52 114 0185 008-010

Milepoint	Station	Comment	Length	Width	Avg Depth	Tons
8.333	440+00	Edge Key @ Begin Project	100	23	0.625	9.0
8.732	461+05	Bridge 114B00001N - South Approach	125	22	1.25	21.0
8.736	461+27	Bridge 114B00001N	43	22	1.25	7.0
8.740	461+48	Bridge 114B00001N - North Approach	125	22	1.25	21.0
9.508	502+00	Edge Key @ End of Project	100	23	0.625	9.0
		Edge Keys @ Approach Roads*				45
				Total		112

\* Additional Edge Key at Approach Roads subject to direction of Engineer

**NOTES:**

Quantities are carried forward to the General Summary. These item quantities and locations are approximate and are intended to provide a basis for bid. Final locations and quantities will be determined by the contractor and approved by the engineer in the field  
Refer to Bridge Detail for Paving Project - Bridge Number 114B00001N elsewhere in these Plans for details of Milling at Bridge over Indian Creek

**Warren County KY 185**

**ROADSIDE REGRADING SUMMARY - HSIP**

\* The "Figure References" noted below refer to the Figure number within the Roadside Regrading and Embankment Benching Detail Sheet that is the closest representation of the intended Roadside Regrading.  
 \*\* The Estimated Volumes of Excavation and Embankment are provided for informational purposes ONLY. The Department gives no guarantee to the accuracy of the estimated volumes. The Bidder must draw his/her own conclusion. Payment will be based on the actual volume of Roadway Excavation and/or Embankment in Place performed.

Side of Road	LOCATION				Length (LF)	Estimated Excavation Volume** (CU YD)	Estimated Embankment Volume** (CU YD)	Roadside Regrading Detail Sheet Figure Ref.*	Target Fill Slope	Include DGA Wedge? (Yes/No)	DGA (TONS)	Asphalt		Channel Line Ditch, Fill Slope or Cut Slope? (Yes/No)	Channel Lining Class II (TONS)	Geotex. Fabric Type IV (SQ YD)	Remarks
	Approx. BEGIN Milepoint	Approx. END Milepoint	Approx. BEGIN Station	Approx. END Station								Seal Coat (TON)	Seal Aggregate (TON)				
Left	440+00	8.333	442+35	8.378	235	10	21	Figure 8	6:1	Yes	11	0.16	1.31	No			
Left	442+35	8.378	449+40	8.511	705	5	84	Figure 8	3:1	Yes	32	0.47	3.92	No			
Left	449+40	8.511	452+10	8.563	270	37	61	Figure 9	3:1	Yes	13	0.18	1.50	No			
Left	452+10	8.563	455+60	8.629	350	0	10	Figure 1	4:1	Yes	16	0.24	1.95	No			
Left	455+60	8.629	456+40	8.644	80	0	0	Figure 7	3:1	Yes	4	0.06	0.45	No			
Left	456+40	8.644	457+50	8.665	110	0	2	Figure 1	6:1	Yes	5	0.08	0.62	No			
Left	463+00	8.769	465+80	8.822	280	7	19	Figure 8	4:1	Yes	13	0.19	1.56	No			
Left	465+80	8.822	466+80	8.841	100	0	2	Figure 1	4:1	Yes	5	0.07	0.56	No			
Left	466+80	8.841	469+00	8.883	220	7	35	Figure 9	3:1	Yes	10	0.15	1.23	No			
Left	469+00	8.883	486+70	9.218	1,770	52	66	Figure 8	3:1	Yes	80	1.18	9.84	No			
Left	486+70	9.218	490+20	9.284	350	0	65	Figure 3	3:1	Yes	16	0.24	1.95	No			
Left	490+20	9.284	493+30	9.343	310	1	16	Figure 9	3:1	Yes	14	0.21	1.73	No			
Left	493+30	9.343	495+20	9.379	190	4	6	Figure 8	3:1	Yes	9	0.13	1.06	Yes - Ditch	102		Replace existing Channel Lining.
Left	495+50	9.384	502+00	9.508	650	5	70	Figure 8	3:1	Yes	30	0.44	3.62	No			
Right	440+00	8.333	446+65	8.459	665	10	89	Figure 8	4:1	Yes	30	0.45	3.70	No			
Right	447+35	8.473	450+25	8.527	290	3	19	Figure 2	4:1	Yes	13	0.20	1.62	No			
Right	451+25	8.546	458+00	8.674	675	30	275	Figure 9	3:1	Yes	31	0.45	3.75	No			
Right	458+55	8.685	459+25	8.698	70	0	0	Figure 1	6:1	Yes	4	0.05	0.39	No			
Right	463+55	8.779	485+50	9.195	2,195	24	33	Figure 8	4:1	Yes	99	1.47	12.20	No			
Right	485+50	9.195	486+20	9.208	70	1	1	Figure 2	4:1	Yes	4	0.05	0.39	No			
Right	486+20	9.208	492+20	9.322	600	7	9	Figure 8	4:1	Yes	27	0.40	3.34	No			
Right	492+50	9.328	494+25	9.361	175	8	1	Figure 10	4:1	Yes	8	0.12	0.98	No			
Right	494+25	9.361	496+40	9.402	215	7	2	Figure 8	4:1	Yes	10	0.15	1.20	No			
Right	496+90	9.411	497+25	9.418	35	0	1	Figure 2	6:1	Yes	2	0.03	0.20	No			
Right	497+50	9.422	502+00	9.508	450	0	72	Figure 2	3:1	Yes	21	0.30	2.50	No			

Summary of Items					
Item	CU YD	TONS	TONS	Channel Lining Class II	TONS
Roadway Excavation	166		7.5	102	
Embankment in Place	792		62	0	
DGA	507				
Asphalt Seal Coat					
Asphalt Seal Aggregate					
Geotextile Fabric Type IV					

PIPE REPLACEMENT & EXTENSION SUMMARY - HSP

Mile Point	Station	Existing				Proposed												Comments								
		Pipe Size, Type	Left Hdwl	Right Hdwl	Length (LF)	Remove Pipe (LF)		Pipe Extension Length (LF)		Class A Concrete for Intermediate Anchor/Collar (CU YD) <sup>3</sup>	Entrance Pipe 15" (LF)	Culvert Pipe 18" (LF)	Culvert Pipe 24" (LF)	Culvert Pipe 30" (LF)	Headwall or Drainage Box		Asphalt Base (TON)		Asphalt Surface (TON)		Milling & Texturing (TON)		Channel Lining CI II (TON)			
						Left	Right	Left	Right						Left	Right	Left		Right	Left	Right	Left	Right	Left	Right	
8.511	449+37	24" RCP	---	---	33.4942°	31	4	4	17	12	3.18		29				24" Slope & 24" Mitered	0.9	3.1	3.1	3.1					Safety Grate required due to Skew. See Sloped & Mitered Concrete Headwall Details.
8.564	452+16	24" RCP	---	---	0°	34	4	0	12	0	1.59		12				24" Slope & Mitered	0.9	3.1	3.1	3.1					
8.674	457+98	24" RCP	---	---	0°	33	0	4	0	10	1.59		10				Safety Box Inlet - 24 inch	0.9	3.1	3.1	3.1					
8.843	466+91	18" RCP	---	---	0°	31	15	16	15	21			36				Safety Box Inlet - 18 inch	1.9	7.6	7.6	7.6					Pipe Replacement
9.500	501+60	18" RCP	---	---	0°	47	4	0	4	0	1.59		4				18" Slope & Mitered									
						<b>TOTALS:</b>		<b>51 LF</b>					<b>7.95 CU YD</b>	<b>0 LF</b>	<b>40 LF</b>	<b>51 LF</b>	<b>0 LF</b>			<b>9 TON</b>	<b>34 TON</b>	<b>34 TON</b>	<b>0 TON</b>	<b>0 TON</b>		

NOTES:

- These Pipe and Drainage Item quantities and locations are approximate and are intended to provide a basis for bid. Final locations, flow line elevations, grate elevations, and quantities will be determined by the contractor and approved by the engineer in the field.
- Clearing and grubbing necessary to install drainage items, as directed by the Engineer, will be considered part of Site Preparation, which is incidental to the Contract.
- See Standard Drawing RDX-060-03 for Intermediate Anchor details.
- Quantities carried forward to the General Summary.

Headwall Totals		
Safety Box Inlet - 18 inch	1	Each
Safety Box Inlet - 24 inch	2	Each
Sloped & Mitered Conc. Headwall - 18"	2	Each
Sloped & Mitered Conc. Headwall - 24"	3	Each

**Guardrail Summary - HSIP** **Warren County** **KY 185**

Notes: Begin/End Milepoints are estimated to include the entire length of the Rail AND the End Treatments. The Engineer may adjust the proposed guardrail termini to ensure proper installation of the guardrail system.

Side of Road	Proposed Guardrail to be Constructed					Number of Radius of Rail	Remarks	Existing Guardrail to be Removed							
	Proposed BEGINNING Treatment	Approx. BEGIN Station	Approx. END Milepoint	Proposed ENDING Treatment	Proposed Length (LF)			Approx. BEGIN Station	Approx. BEGIN Milepoint	Approx. END Station	Approx. END Milepoint	Existing Length (LF)			
NB	Terminal Section 1	459+90	8.710	461+12	8.733	Single Face A	103.75	1	At beginning, wrap G/R around entrance and install TS #1. At ending, Single Face A connects to Guardrail-Bridge Case I	NB	459+93	8.711	461+12	8.733	121.50
NB		461+12	8.733	461+55	8.741		43.00		Construct 43 LF of Guardrail-Bridge Case I	NB	461+12	8.733	461+55	8.741	50.00
NB	Single Face A	461+55	8.741	463+25	8.774	Terminal Section 1	153.75	1	At beginning, Single Face A connects to Guardrail-Bridge Case I. At ending, wrap G/R around entrance and install TS #1.	NB	461+55	8.741	463+25	8.774	173.50
SB	Type 1	457+50	8.665	460+98	8.731	Single Face A	275.00		At ending, Single Face A connects to Guardrail-Bridge Case II	SB	457+76	8.670	460+98	8.731	334.00
SB		460+98	8.731	461+41	8.739		43.00		Construct 43 LF of Guardrail-Bridge Case I	SB	460+98	8.731	461+41	8.739	50.00
SB	Single Face A	461+41	8.739	461+71	8.745	Terminal Section 1	106.25	5	At beginning, Single Face A connects to Guardrail-Bridge Case I. At ending, wrap G/R around radius to Lodge Hill Road and install TS #1	SB	461+41	8.739	461+71	8.745	128.00

**Summary of Items**

Item Description	Quantity	Unit
G/R Steel W Beam-S Face (7 FT Post)	638.75	LF
Remove Guardrail	857.00	LF
Delineator for Guardrail B/W	18	EACH
End Treatment Type 1	1	EACH
End Treatment Type 2A	0	EACH
End Treatment Type 3	0	EACH
End Treatment Type 4A	0	EACH
End Treatment Type 7	0	EACH
Terminal Section No. 1	3	EACH
Guardrail-Steel W Beam-S Face A	100	LF
GR Connector to Bridge End Type A	0	EACH
GR Connector to Bridge End Type A-1	0	EACH
GR Connector to Bridge End Type C	0	EACH
GR Connector to Bridge End Type D	0	EACH
Thrie-Beam Guardrail Transition (TL-2)	0	EACH
Thrie-Beam Guardrail Transition (TL-3)	0	EACH
DGA	0	TONS
Asphalt Seal Coat	0.00	TONS
Asphalt Seal Aggregate	0.00	TONS
Guardrail-Bridge Case I	86	LF

Quantities carried forward to the General Summary.

Warren County - KY 185  
3-9024.00

RCBC EXTENSION TABULATION - HSIP								
Station	Milepoint	Skew	Size	Extension End	Remove Concrete Masonry (CY)	Foundation Preparation (LS)	Concrete - Class A (CU YD)	Steel Reinforcement (LB)
442+24	8.376	0°	4'x4'	LT/RT	0.4	1	17.2	1039
487+24	9.228	44° RT	3'x3'	LT/RT	0.6	1	19.6	1529
<b>TOTAL:</b>					-	-	<b>36.8</b>	<b>2568</b>

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QUANTITY</u>
2403	REMOVE CONCRETE MASONRY (STA 442+24)	CU YD	0.4
2403	REMOVE CONCRETE MASONRY (STA 487+24)	CU YD	0.6
8003	FOUNDATION PREPARATION (442+24)	LS	1
8003	FOUNDATION PREPARATION (487+24)	LS	1
8100	CONCRETE - CLASS A	CU YD	36.8
8150	STEEL REINFORCEMENT	LB	2568

Quantities carried forward to the General Summary.  
See RCBC Extension Details for additional information.

**PAVEMENT MARKINGS SUMMARY - HSIP**

Mile Point	Begin		End		Side	Length (LF)	PAVEMENT MARKING	Comments
	Station	Mile Point	Station	Mile Point				
8.333	440+00	9.508	502+00	502+00	Left	6200	Edgeline Rumble Strip	After surfacing operations, install white Edge Line Rumble Stripes according to the notes and details shown elsewhere in this proposal.
8.333	440+00	9.508	502+00	502+00	Center	6200	Double Yellow	Restripe after surfacing operations. The striping of passing zones shall be at the direction of the Engineer.
8.333	440+00	9.508	502+00	502+00	Right	6200	Edgeline Rumble Strip	After surfacing operations, install white Edge Line Rumble Stripes according to the notes and details shown elsewhere in this proposal.

Summary		Totals
Edgeline Rumble Strip		12,400 LF
Pavement Striping - Permanent Paint - 6 Inch		24,800 LF
Pavement Striping - Temporary Paint - 4 Inch		24,800 LF

NOTES: Quantities are carried forward to the General Summary. These item quantities and locations are approximate and are intended to provide a basis for bid. Final locations and quantities will be determined by the contractor and approved by the engineer in the field

Warren County  
KY 185

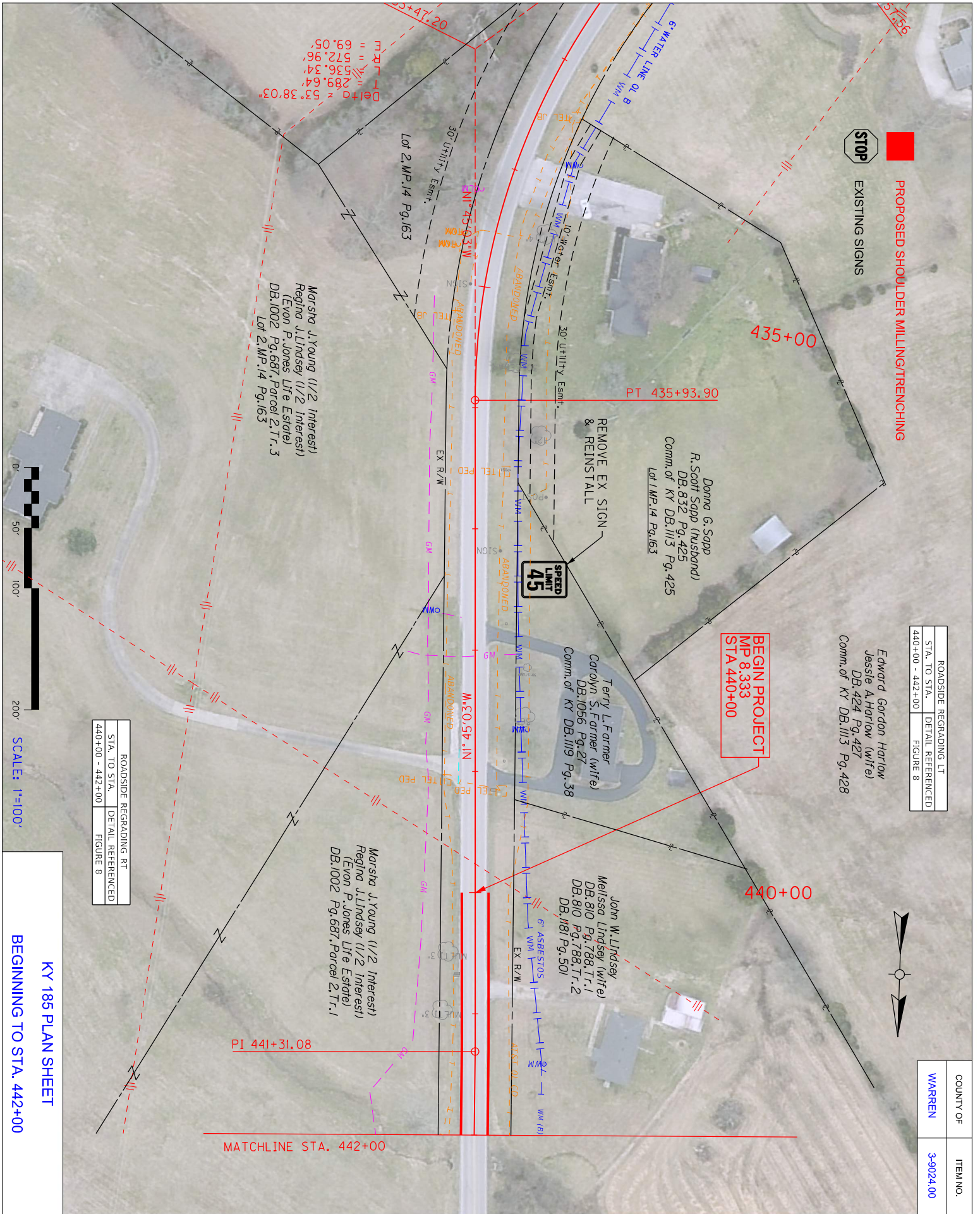
Assembly ID	Side of Road	SIGN LOCATION			MUTCD Code	Sign Description	Sign Text / Remarks	Sign Dimensions (in x in)	SHEETING			SBM Alum Sheet Signs 0.080 IN (SQ FT)	SBM Alum Sheet Signs 0.125 IN (SQ FT)	Installation Type	Bracing Req'd	# of Sign Posts	Estimated Length of 2'-1/2" Post (ft)	Estimated Length of 2'-1/2" Post (includ to post)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)
		Approx. Station	Approx. Mile Point	Facing Traffic Traveling					Text/ Symbol Color	Background Color	Sheeting Type									
1	LT	20	437+20	SB	R2-1	Speed Limit XX	24 x 30	Black	White	XI	0.00	0.00			0	0	0	0	0	
2	LT	20	444+50	SB	W14-3	No Passing Zone	48 x 48 x 36	Black	Yellow	XI	0.00	0.00			0	0	0	0	0	
3	LT	16	446+80	SB	M1-5	State Route Sign (1 or 2 digit)	24 x 24	Black	White	XI	0.00	0.00			0	0	0	0	0	
4	LT	16	446+80	SB	M6-4	Horizontal Double Arrow	21 x 15	Black	White	XI	0.00	0.00			0	0	0	0	0	
5	RT	18	446+70	NB	M1-5	State Route Sign (1 or 2 digit)	24 x 24	Black	White	XI	0.00	0.00			0	0	0	0	0	
6	RT	18	446+70	NB	M6-3	Straight Arrow	21 x 15	Black	White	XI	0.00	0.00			0	0	0	0	0	
7	RT	18	446+70	NB	M1-5	State Route Sign (1 or 2 digit)	24 x 24	Black	White	XI	0.00	0.00			0	0	0	0	0	
8	RT	18	446+70	NB	W1-6R	Right One-Direction Lrg Arrow	48 x 24	Black	FL Yellow	XI	0.00	0.00			0	0	0	0	0	
9	RT	16	448+30	NB	W1-4R	Right Reverse Curve	30 x 30	Black	FL Yellow	XI	0.00	0.00			0	0	0	0	0	
10	LT	12	450+80	SB	M1-5	State Route Sign (1 or 2 digit)	24 x 24	Black	White	XI	0.00	0.00			0	0	0	0	0	
11	LT	12	450+80	SB	M6-4	Horizontal Double Arrow	21 x 15	Black	White	XI	0.00	0.00			0	0	0	0	0	
12	LT	13	450+81	SB	M1-5	State Route Sign (1 or 2 digit)	24 x 24	Black	White	XI	0.00	0.00			0	0	0	0	0	
13	LT	13	450+81	SB	W1-6L	Left One-Direction Lrg Arrow	48 x 24	Black	FL Yellow	XI	0.00	0.00			0	0	0	0	0	
14	LT	17	454+05	SB	S3-1	School Bus Stop Ahead	36 x 36	Black	FL Yellow-Green	XI	0.00	0.00			0	0	0	0	0	
15	RT	17	454+10	NB	W11-8	Emergency Vehicle Junction	30 x 30	Black	Yellow	XI	0.00	0.00			0	0	0	0	0	
16	LT	15	455+10	SB	M2-1	Junction	21 x 15	Black	White	XI	0.00	0.00			0	0	0	0	0	
17	LT	15	455+10	SB	M1-5	State Route Sign (1 or 2 digit)	24 x 24	Black	White	XI	0.00	0.00			0	0	0	0	0	
18	RT	15	468+90	NB	W1-4R	Right Reverse Curve	30 x 30	Black	FL Yellow	XI	0.00	0.00			0	0	0	0	0	
19	RT	15	460+50	NB	R12-5	Weight Limit Sign (multiple truck type symbols)	24 x 36	Black	White	XI	0.00	0.00			0	0	0	0	0	
20	LT	15	461+50	NB	R12-5	Weight Limit Sign (multiple truck type symbols)	24 x 36	Black	White	XI	0.00	0.00			0	0	0	0	0	
21	RT	50	459+90	NB	R8-3A	No Parking	24 x 30	Red	White	XI	0.00	0.00			0	0	0	0	0	
22	RT	50	459+90	NB	W14-3	No Thru Traffic	18 x 24	Black	White	XI	0.00	0.00			0	0	0	0	0	
23	LT	15	468+95	SB	W1-4R	Right Reverse Curve	30 x 30	Black	FL Yellow	XI	0.00	0.00			0	0	0	0	0	
24	LT	17	472+50	SB	W14-3	No Passing Zone	48 x 48 x 36	Black	Yellow	XI	0.00	0.00			0	0	0	0	0	
25	RT	17	474+40	NB	W14-3	No Passing Zone	48 x 48 x 36	Black	Yellow	XI	0.00	0.00			0	0	0	0	0	
26	LT	17	487+30	NB	W14-3	No Passing Zone	48 x 48 x 36	Black	Yellow	XI	0.00	0.00			0	0	0	0	0	
27	RT	17	488+75	NB	W14-3	No Passing Zone	48 x 48 x 36	Black	Yellow	XI	0.00	0.00			0	0	0	0	0	

Summary of Items	
Item	21134ND
REMOVE-STORE & REINSTALL SIGN	27.00
EACH	EACH

Summary of Items	
Steel Post - Type 1	0
LF	LF
GMSS Type D	0
EACH	EACH
GMSS Type D (Surface Mount)	0
EACH	EACH
Class A Concrete for Signs	0
CU YD	CU YD

NOTE: EXISTING SIGN DETAILS SHOWN FOR INFORMATION ONLY. REMOVE, STORE AND RELOCATE SIGNS AS NEEDED TO COMPLETE PAVEMENT WIDENING AND ROADSIDE REGRAVING WORK.

NOTES: Quantities are carried forward to the General Summary. These item quantities and locations are approximate and are intended to provide a basis for bid. Final locations and quantities will be determined by the contractor and approved by the engineer in the field.



**PROPOSED SHOULDER MILLING/TRENCHING**

**STOP** EXISTING SIGNS

ROADSIDE REGRAVING LT	
STA. TO STA.	DETAIL REFERENCED
440+00 - 442+00	FIGURE 8

Edward Gordon Harlow  
Jessie A. Harlow (wife)  
DB. 424 Pg. 427  
Comm. of KY DB. 113 Pg. 428

**BEGIN PROJECT**  
MP 8.333  
STA 440+00

Donna G. Sapp  
R. Scott Sapp (husband)  
DB. 832 Pg. 425  
Comm. of KY DB. 113 Pg. 425  
Lot 1 MP. 14 Pg. 163

Terry L. Farmer  
Carolyn S. Farmer (wife)  
DB. 1056 Pg. 27  
Comm. of KY DB. 119 Pg. 38

John W. Lindsey  
Melissa Lindsey (wife)  
DB. 810 Pg. 788 Tr. 1  
DB. 810 Pg. 788 Tr. 2  
DB. 1181 Pg. 501

Marsha J. Young (1/2 Interest)  
Regina J. Lindsey (1/2 Interest)  
(Evon P. Jones Life Estate)  
DB. 1002 Pg. 687, Parcel 2, Tr. 3  
Lot 2, MP. 14 Pg. 163

Marsha J. Young (1/2 Interest)  
Regina J. Lindsey (1/2 Interest)  
(Evon P. Jones Life Estate)  
DB. 1002 Pg. 687, Parcel 2, Tr. 1

ROADSIDE REGRAVING RT	
STA. TO STA.	DETAIL REFERENCED
440+00 - 442+00	FIGURE 8

SCALE: 1"=100'

**KY 185 PLAN SHEET**  
BEGINNING TO STA. 442+00

COUNTY OF	ITEM NO.
WARREN	3-9024.00

MATCHLINE STA. 442+00

PI 441+31.08

PT 435+93.90

435+00

440+00

Lot 2, MP. 14 Pg. 163

M. 50.54 .IN

Delta = 38.03°  
69.05, 96.66, 22.6, 34.4, 55.89, 6.64







EXISTING SIGNS

PROPOSED SHOULDER MILLING/TRENCHING

STA. TO STA.	DETAIL REFERENCED
442+00 - 449+40	FIGURE 8
449+40 - 451+00	FIGURE 9

ROADSIDE REGRADING RT	DETAIL REFERENCED
442+00 - 446+65	FIGURE 8
447+35 - 450+25	FIGURE 2

WATER UTILITY INFORMATION					
POINT	UTILITY	STATION	OFFSET	GROUND ELEVATION (FT.)	DEPTH (FT.)
105	6" PVC	445+66.32	31.22 LT	570.56	4.33
102	6" PVC	445+66.04	17.92 RT	570.99	4.0

445+00

450+00

John W. Lindsey  
Melissa Lindsey (wife)  
DB.810 Pg.788, Tr.1  
DB.810 Pg.788, Tr.2  
DB.1181 Pg.501

WARNING - HIGH PRESSURE WATER MAIN IN PROXIMITY TO PROPOSED ROADSIDE REGRADING. EXERCISE CAUTION WHEN CONDUCTING ROADSIDE REGRADING ACTIVITIES.

STA 442+23.68 - EXTEND 4' X 4' RCBC & CONSTRUCT HDWLS

DND EX. WATER MAIN APPROX. DEPTH 52"

DND POLE OR ATTACHED TELECOM FACILITIES

STA 449+37.30 - REMOVE EXISTING HEADWALLS AND 8 LF OF EX 24" RCP, EXTEND EX 24" RCP AND CONSTRUCT HEADWALLS

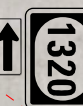
REMOVE EX SIGN & REINSTALL

WE 2 Pg.190

REMOVE EX SIGN & REINSTALL



REMOVE EX SIGN & REINSTALL



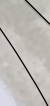
Marsha J Young (1/2 Interest)  
Regina J Lindsey (1/2 Interest)  
Evan P. Jones (Life Estate)  
DB.1002 Pg.687, Parcel 2, Tr.1



REMOVE EX SIGN & REINSTALL



REMOVE EX SIGN & REINSTALL



MATCHLINE STA. 442+00

MATCHLINE STA. 451+00

KY 1320 (PENNS CHAPEL RD)

Jacqueline York (unmarried)  
DB.809 Pg.494  
Comm. of KY DB.117 Pg.1

Lot 2, MP. 5, Pg.122



SCALE: 1"=100'

KY 185 PLAN SHEET

STA. 442+00 TO STA. 451+00

COUNTY OF	WARREN
ITEM NO.	3-9024.00



**PROPOSED SHOULDER MILLING/TRENCHING**



**EXISTING SIGNS**

WATER UTILITY INFORMATION					
POINT	UTILITY	STATION	OFFSET	GROUND ELEVATION (FT.)	DEPTH
4050	4" PVC	457+61.78	28.77 RT	538.12	3.5
135	6" DIP	459+94.50	30.86 RT	535.29	3.5

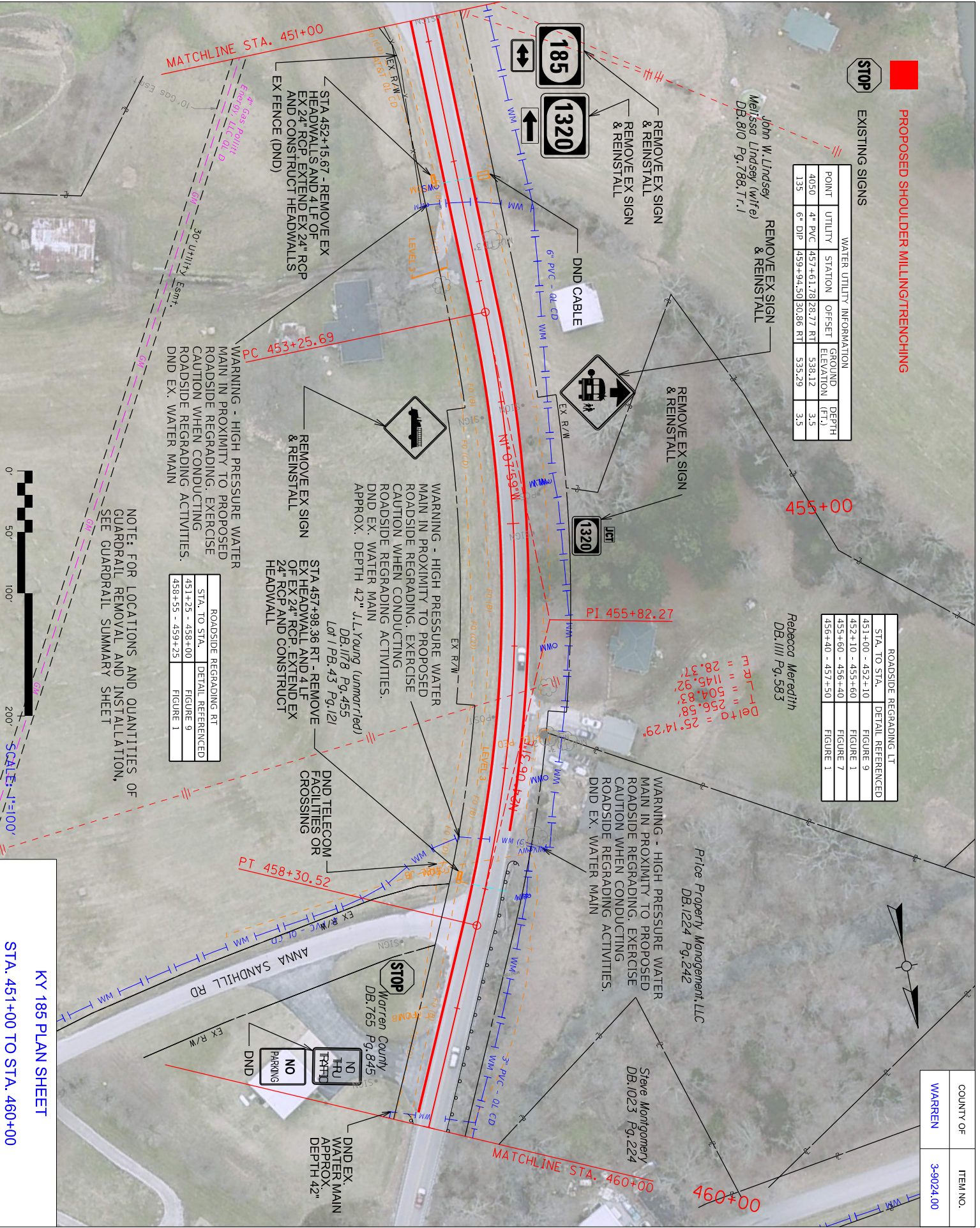
ROADSIDE REGRAVING LT		
STA. TO STA.	DETAIL REFERENCED	FIGURE
451+00 - 452+10	FIGURE 9	FIGURE 1
452+10 - 455+60	FIGURE 1	FIGURE 7
455+60 - 456+40	FIGURE 7	FIGURE 1
456+40 - 457+50	FIGURE 1	

Rebecca Meredith  
DB.1111 Pg.583

Price Property Management, LLC  
DB.1224 Pg.242

Steve Montgomery  
DB.1023 Pg.224

COUNTY OF	WARREN
ITEM NO.	3-9024.00



MATCHLINE STA. 451+00

John W. Lindsey  
Melissa Lindsey (wife)  
DB.810 Pg.788, Tr.1

REMOVE EX SIGN  
& REINSTALL

REMOVE EX SIGN  
& REINSTALL

REMOVE EX SIGN  
& REINSTALL

REMOVE EX SIGN  
& REINSTALL

WARNING - HIGH PRESSURE WATER  
MAIN IN PROXIMITY TO PROPOSED  
ROADSIDE REGRAVING. EXERCISE  
CAUTION WHEN CONDUCTING  
ROADSIDE REGRAVING ACTIVITIES.  
DND EX. WATER MAIN

WARNING - HIGH PRESSURE WATER  
MAIN IN PROXIMITY TO PROPOSED  
ROADSIDE REGRAVING. EXERCISE  
CAUTION WHEN CONDUCTING  
ROADSIDE REGRAVING ACTIVITIES.  
DND EX. WATER MAIN  
APPROX. DEPTH 42" J.L. Young (unmarried)  
DB.1178 Pg.455

REMOVE EX SIGN  
& REINSTALL

DND TELECOM  
FACILITIES OR  
CROSSING

DND EX.  
WATER MAIN  
APPROX.  
DEPTH 42"

STA 452+15.67 - REMOVE EX  
HEADWALLS AND 4 LF OF  
EX 24" RCP EXTEND EX 24" RCP  
AND CONSTRUCT HEADWALLS  
EX FENCE (DND)

WARNING - HIGH PRESSURE WATER  
MAIN IN PROXIMITY TO PROPOSED  
ROADSIDE REGRAVING. EXERCISE  
CAUTION WHEN CONDUCTING  
ROADSIDE REGRAVING ACTIVITIES.  
DND EX. WATER MAIN

ROADSIDE REGRAVING RT		
STA. TO STA.	DETAIL REFERENCED	FIGURE
451+25 - 458+100	FIGURE 9	FIGURE 9
458+55 - 459+25	FIGURE 1	

NOTE: FOR LOCATIONS AND QUANTITIES OF  
GUARDRAIL REMOVAL AND INSTALLATION,  
SEE GUARDRAIL SUMMARY SHEET

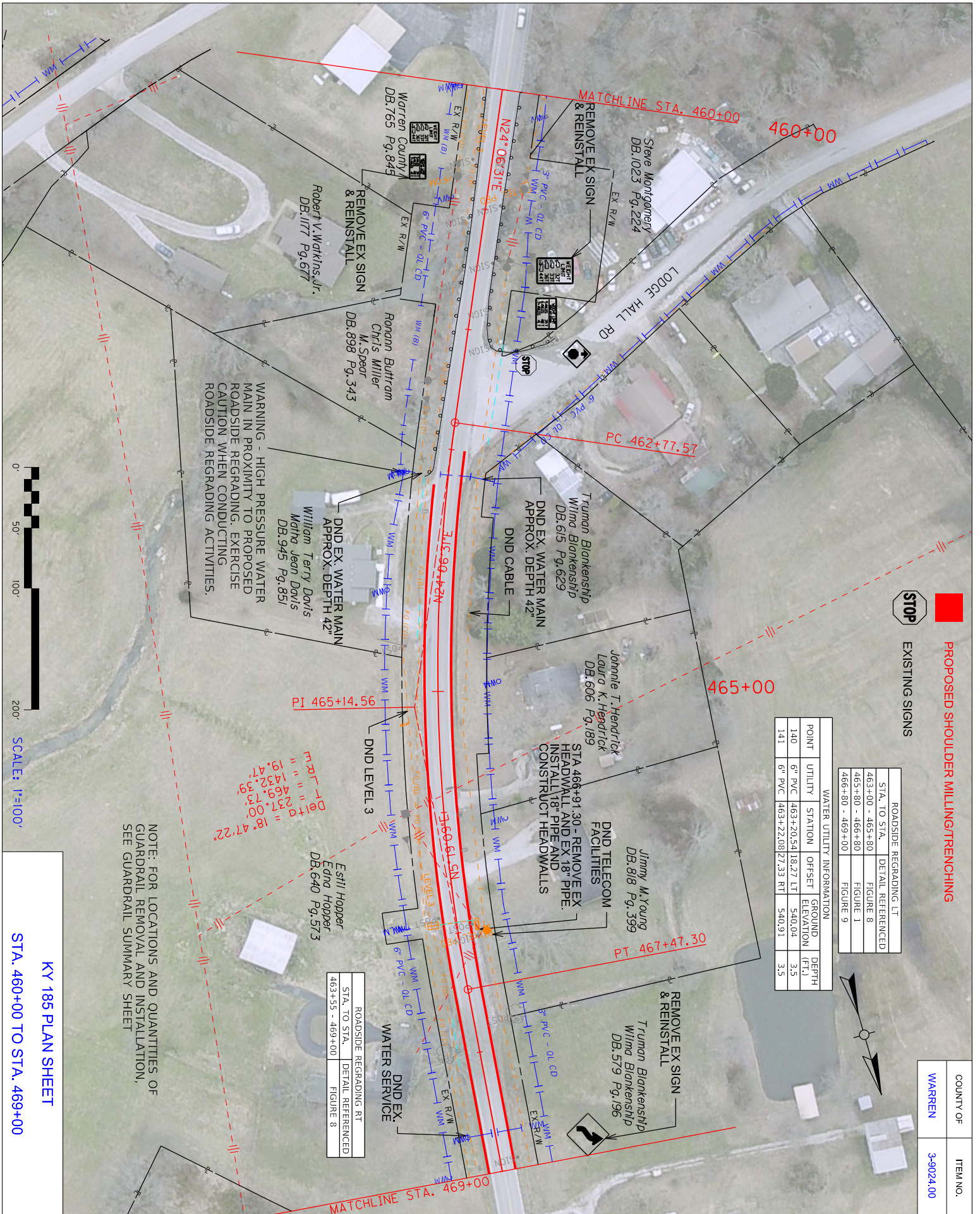


1"=100'  
SCALE

**KY 185 PLAN SHEET**

STA. 451+00 TO STA. 460+00





**PROPOSED SHOULDER MILLING/TRENCHING**  
EXISTING SIGNS

STA. TO STA.	DETAIL REFERENCED
463+00 - 465+30	FIGURE 8
465+80 - 466+30	FIGURE 1
466+80 - 469+00	FIGURE 9

WATER UTILITY INFORMATION			
POINT	UTILITY	STATION	DEPTH (FT.)
140	6" PVC	463+20.5418.27 LT	540.04
141	6" PVC	463+22.08127.33 RT	540.91

STA. TO STA.	DETAIL REFERENCED
463+95 - 469+00	FIGURE 8

WARNING - HIGH PRESSURE WATER MAIN IN PROXIMITY TO PROPOSED ROADSIDE REGRAVING. EXERCISE CAUTION WHEN CONDUCTING ROADSIDE REGRAVING ACTIVITIES.

Delta = 18'-47.22"  
19'-42.39"  
15'-32.70"  
14'-37.00"  
13'-42.39"

NOTE: FOR LOCATIONS AND QUANTITIES OF GUARDRAIL REMOVAL AND INSTALLATION, SEE GUARDRAIL SUMMARY SHEET



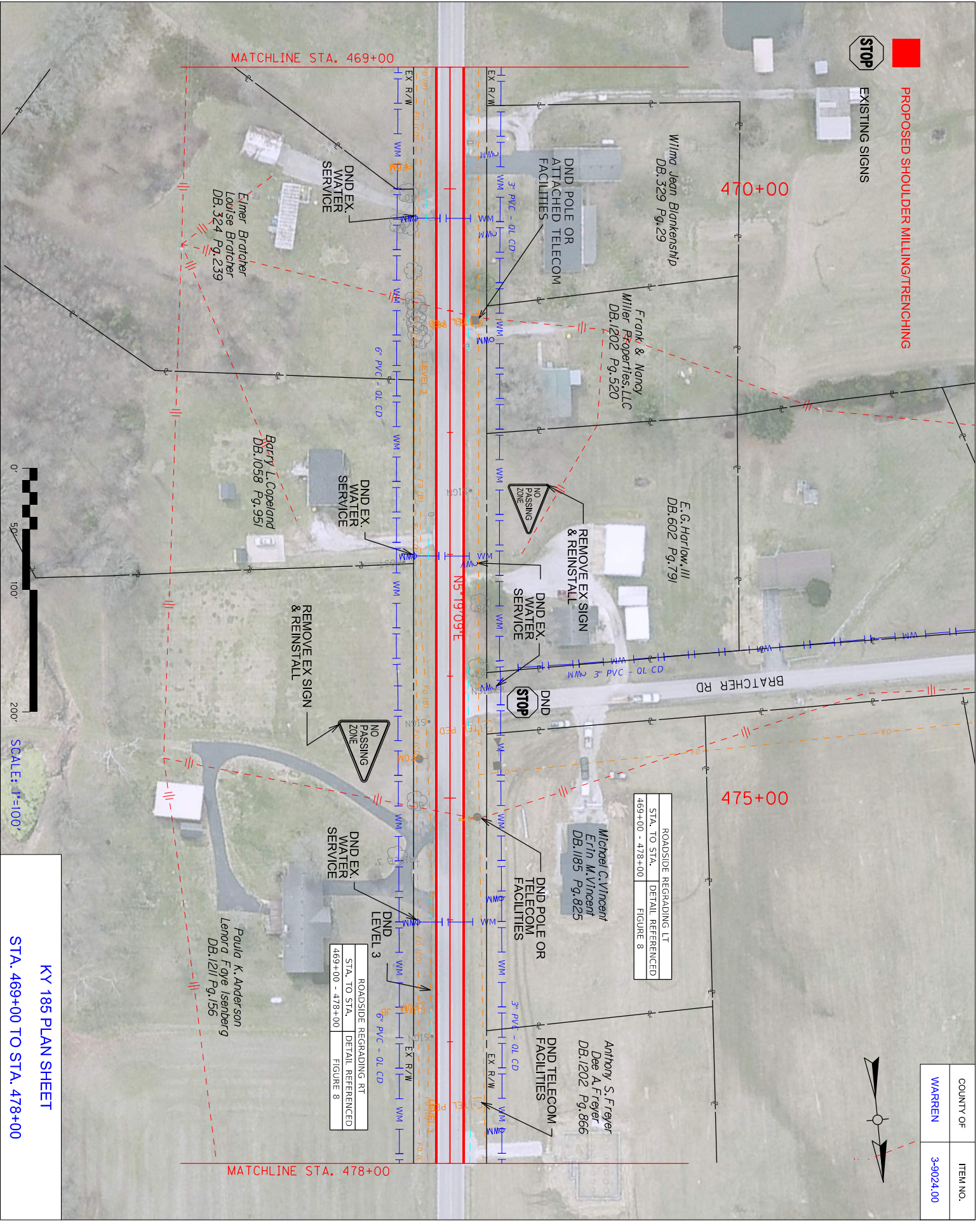
**KY 185 PLAN SHEET**  
STA. 460+00 TO STA. 469+00

COUNTY OF	WARREN
ITEM NO.	3-9024.00





**PROPOSED SHOULDER MILLING/TRENCHING**  
**EXISTING SIGNS**



MATCHLINE STA. 469+00

470+00

475+00

MATCHLINE STA. 478+00



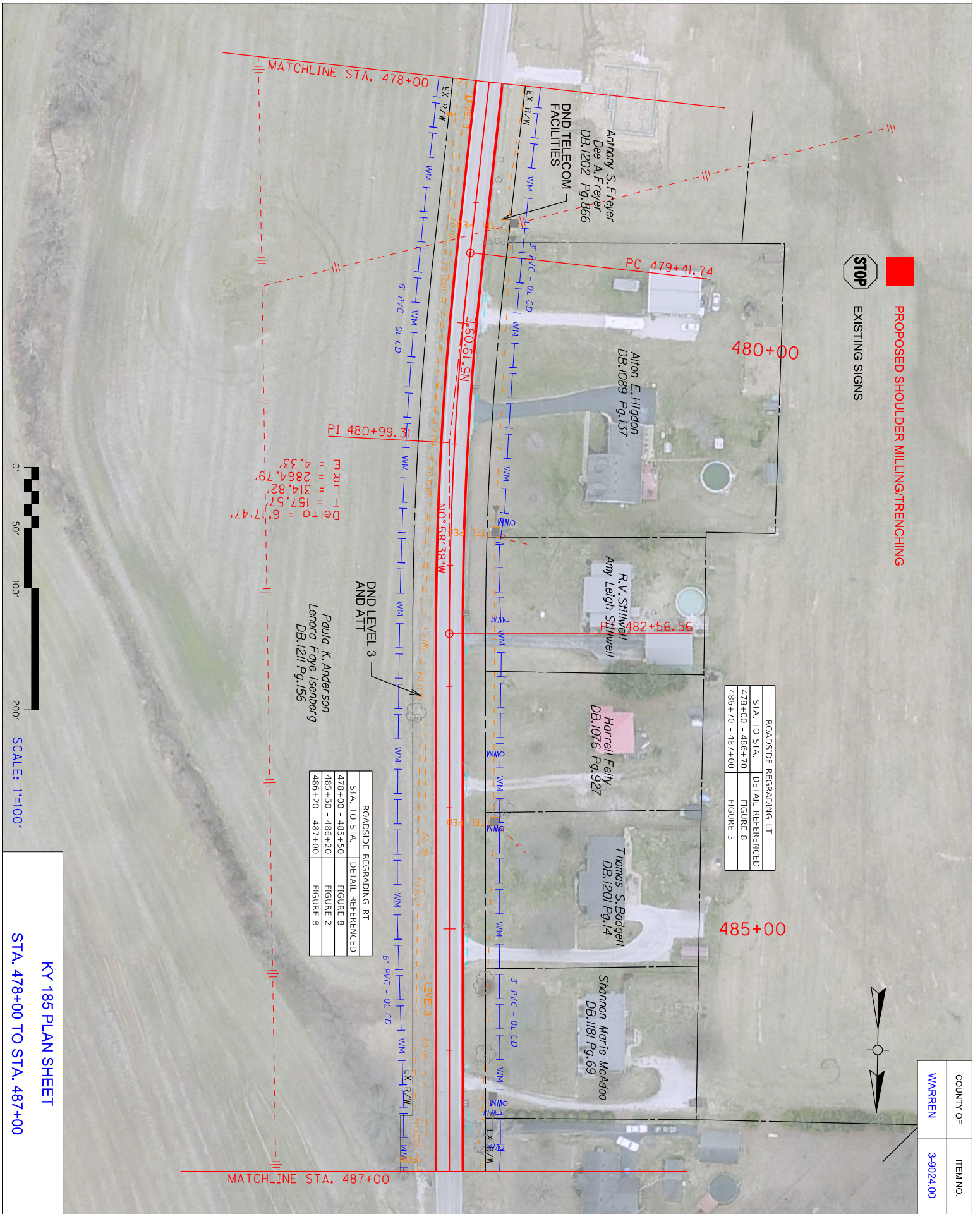
**KY 185 PLAN SHEET**  
**STA. 469+00 TO STA. 478+00**

COUNTY OF	WARREN
ITEM NO.	3-9024.00

ROADSIDE REGRAVING LT	STA. TO STA.	DETAIL REFERENCED
	469+00 - 478+00	FIGURE 8

ROADSIDE REGRAVING RT	STA. TO STA.	DETAIL REFERENCED
	469+00 - 478+00	FIGURE 8





**PROPOSED SHOULDER MILLING/TRENCHING**

**EXISTING SIGNS**

ROADSIDE REGRAVING LT	
STA. TO STA.	DETAIL REFERENCED
478+00 - 486+70	FIGURE 8
486+70 - 487+00	FIGURE 3

ROADSIDE REGRAVING RT	
STA. TO STA.	DETAIL REFERENCED
478+00 - 485+50	FIGURE 8
485+50 - 486+20	FIGURE 2
486+20 - 487+00	FIGURE 8

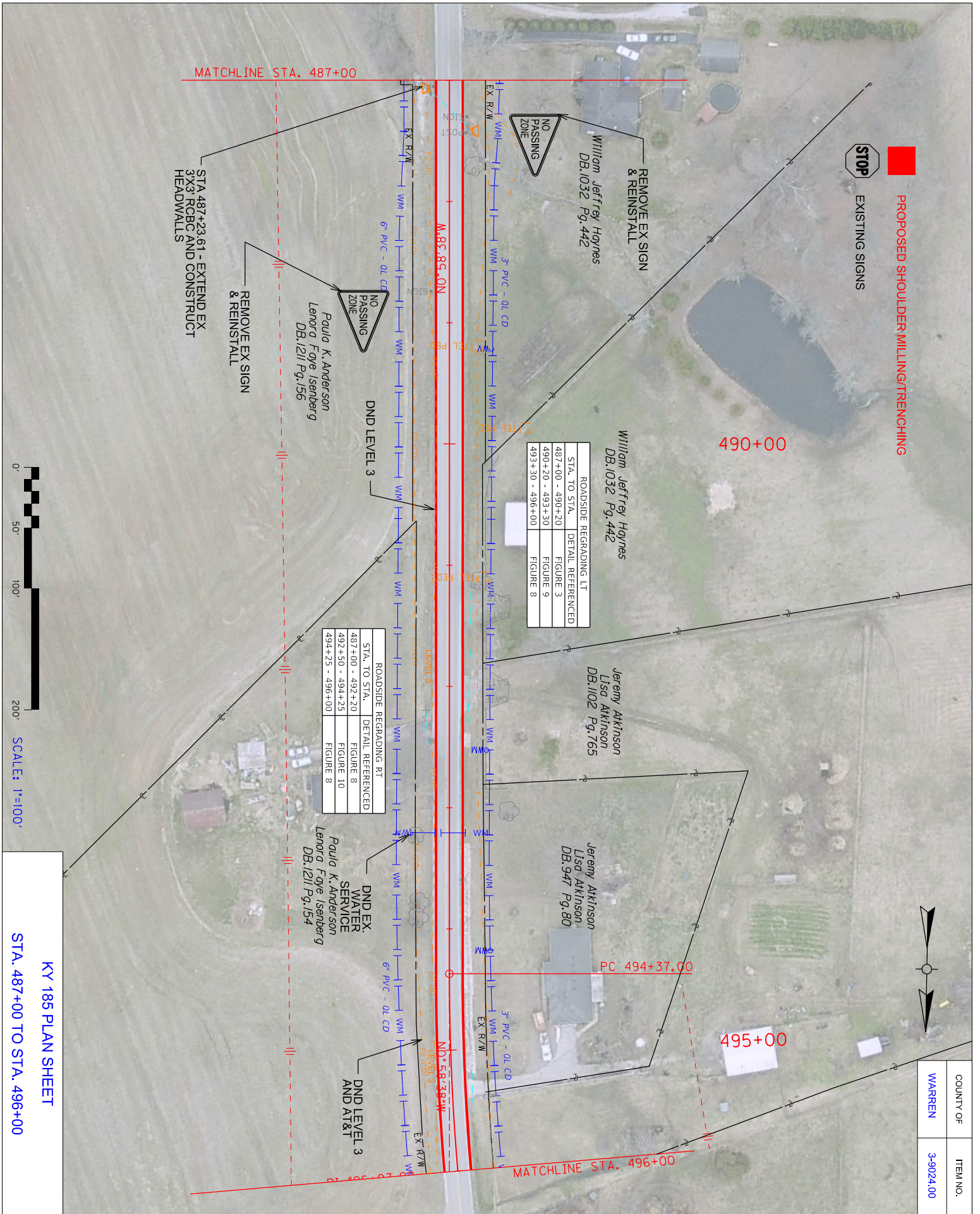
$\Delta$  = 17.47'  
 $\Delta$  = 157.57'  
 $\Delta$  = 314.82'  
 $\Delta$  = 2864.79'  
 $\Delta$  = 4.33'  
 $\Delta$  = 1.1'



**KY 185 PLAN SHEET**  
**STA. 478+00 TO STA. 487+00**

COUNTY OF	ITEM NO.
WARREN	3-9024.00





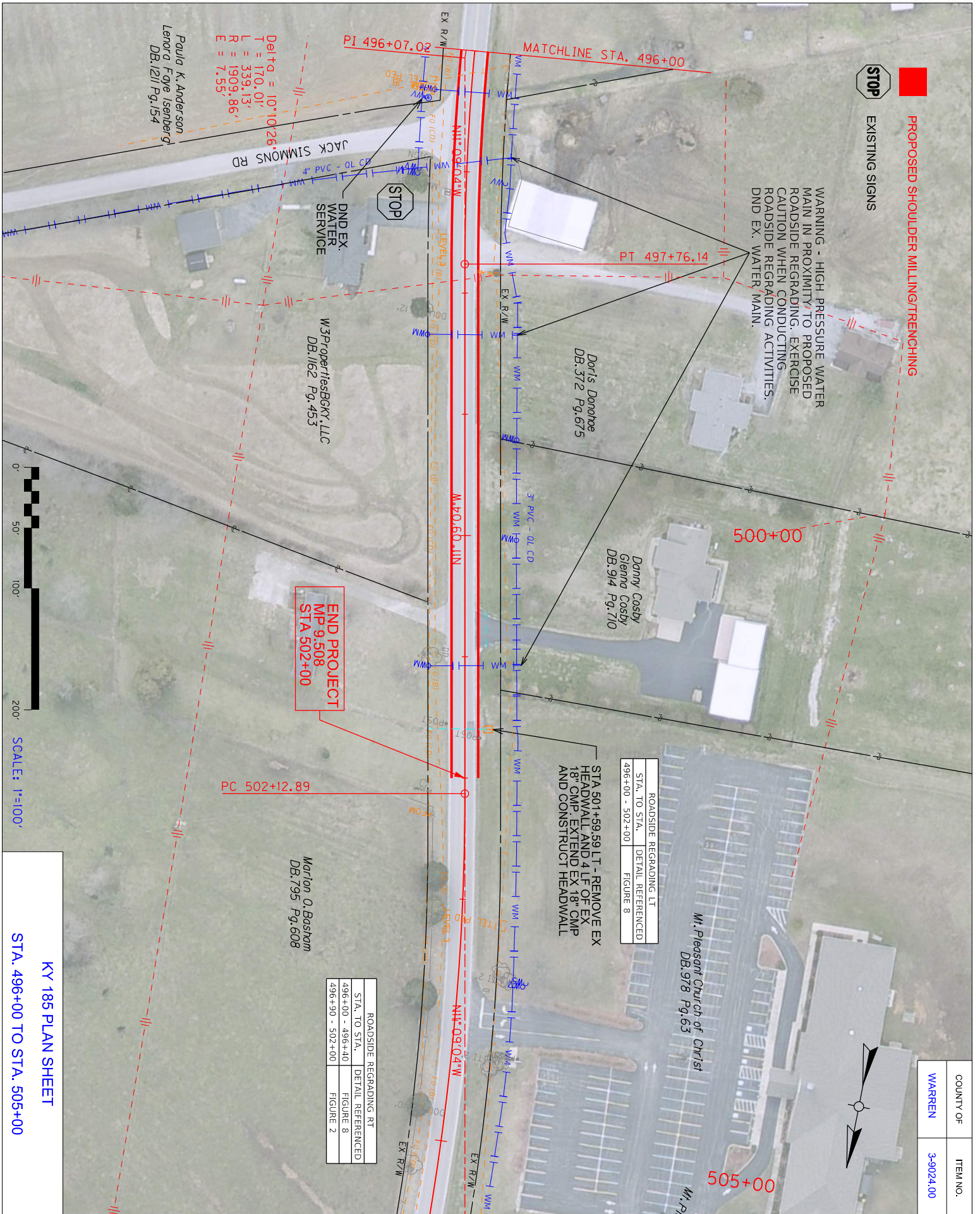
KY 185 PLAN SHEET  
STA. 487+00 TO STA. 496+00

COUNTY OF	ITEM NO.
WARREN	3-9024.00

STA. TO STA.	DETAIL REFERENCED
487+00 - 490+20	FIGURE 3
490+20 - 493+30	FIGURE 9
493+30 - 496+00	FIGURE 8

STA. TO STA.	DETAIL REFERENCED
487+00 - 492+20	FIGURE 8
492+20 - 494+25	FIGURE 10
494+25 - 496+00	FIGURE 8





COUNTY OF	ITEM NO.
WARREN	3-9024.00

KY 185 PLAN SHEET  
STA. 496+00 TO STA. 505+00

**BEFORE YOU DIG**

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The calls to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-Dig (BD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

COUNTY OF	ITEM NO.
WARREN	3-9024.00

STA 449+44.20 - 101.44' LT  
REMOVE EX. HEADWALL AND 4 L.F.  
OF EXISTING 24" RCP  
EXTEND EX 24" RCP 17 L.F. AND  
CONSTRUCT 1 - 24" SLOPED & MITERED  
HEADWALL WITH A GRATE

STA 449+49.51 - 11.77' RT  
REMOVE EX. HEADWALL AND 4 L.F.  
OF EXISTING 24" RCP  
EXTEND EX 24" RCP 12 L.F. AND  
CONSTRUCT 1 - 24" SLOPED & MITERED  
HEADWALL WITH A GRATE

STA 444+23.67 - 20.82' LT  
EXTEND EX. 4' X 4' RCBC 4 L.F.  
AND CONSTRUCT 4' X 4' CAST-IN-PLACE BOX  
CULVERT HEADWALL 0° SKEW

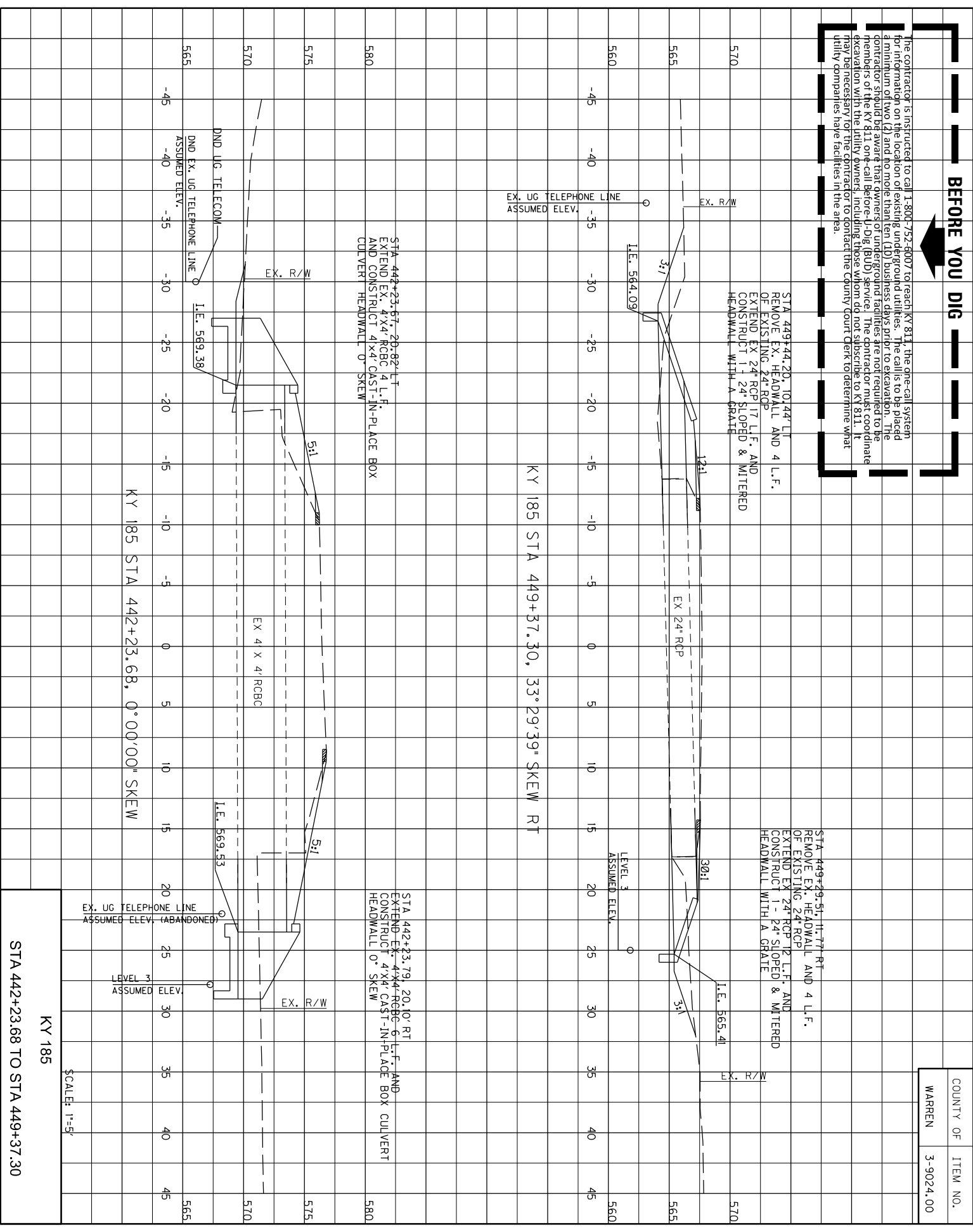
STA 442+23.79 - 20.10' RT  
EXTEND EX. 4' X 4' RCBC 6 L.F. AND  
CONSTRUCT 4' X 4' CAST-IN-PLACE BOX  
HEADWALL 0° SKEW

KY 185 STA 449+37.30, 33° 29' 39" SKEW RT

KY 185 STA 442+23.68, 0° 00' 00" SKEW

EX. UG TELEPHONE LINE  
ASSUMED ELEV. (ABANDONED)

LEVEL 3  
ASSUMED ELEV.



STA 442+23.68 TO STA 449+37.30

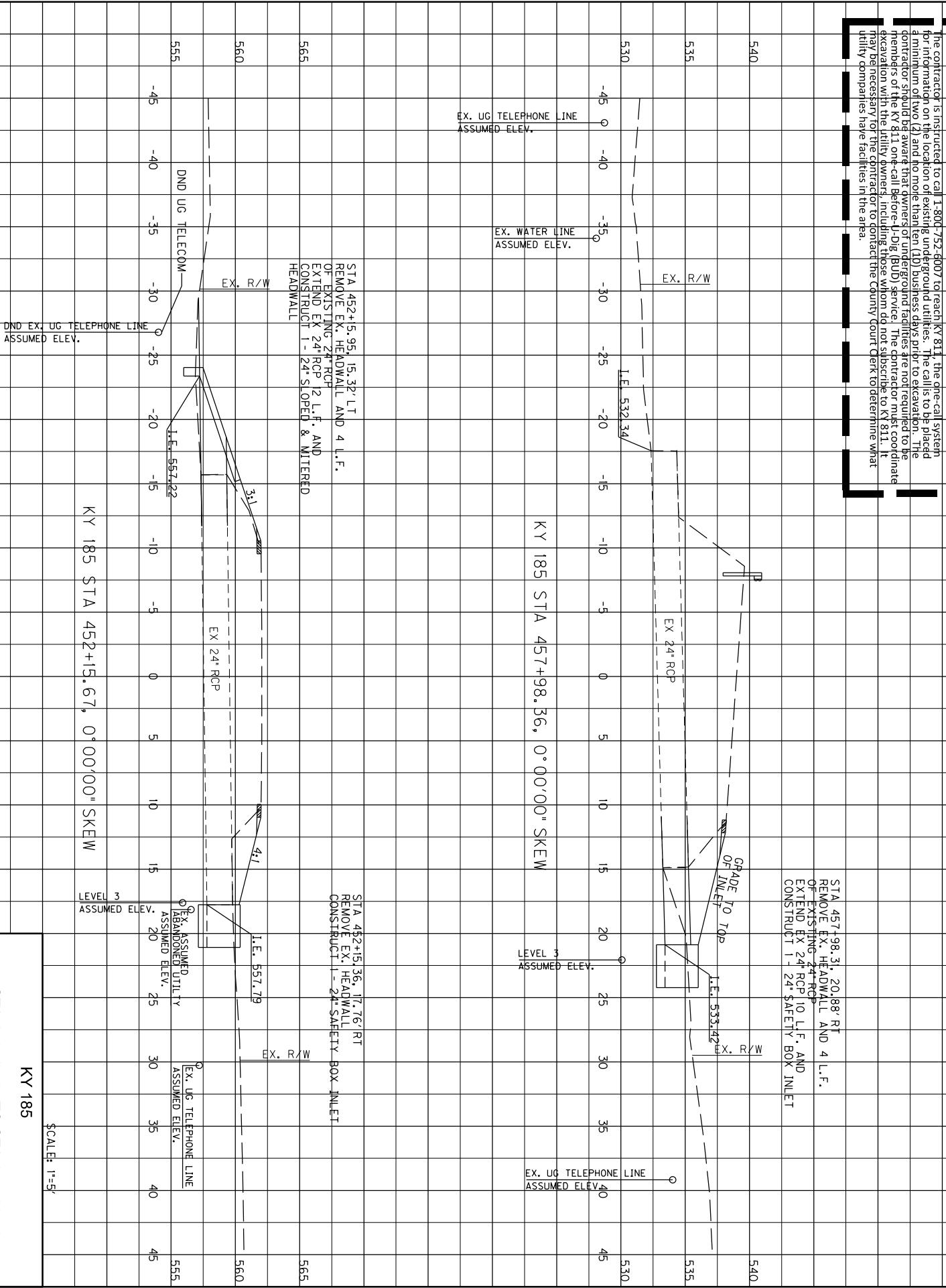
KY 185

SCALE: 1"=5'



BEFORE YOU DIG

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The calls to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-You-Dig (BYD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.



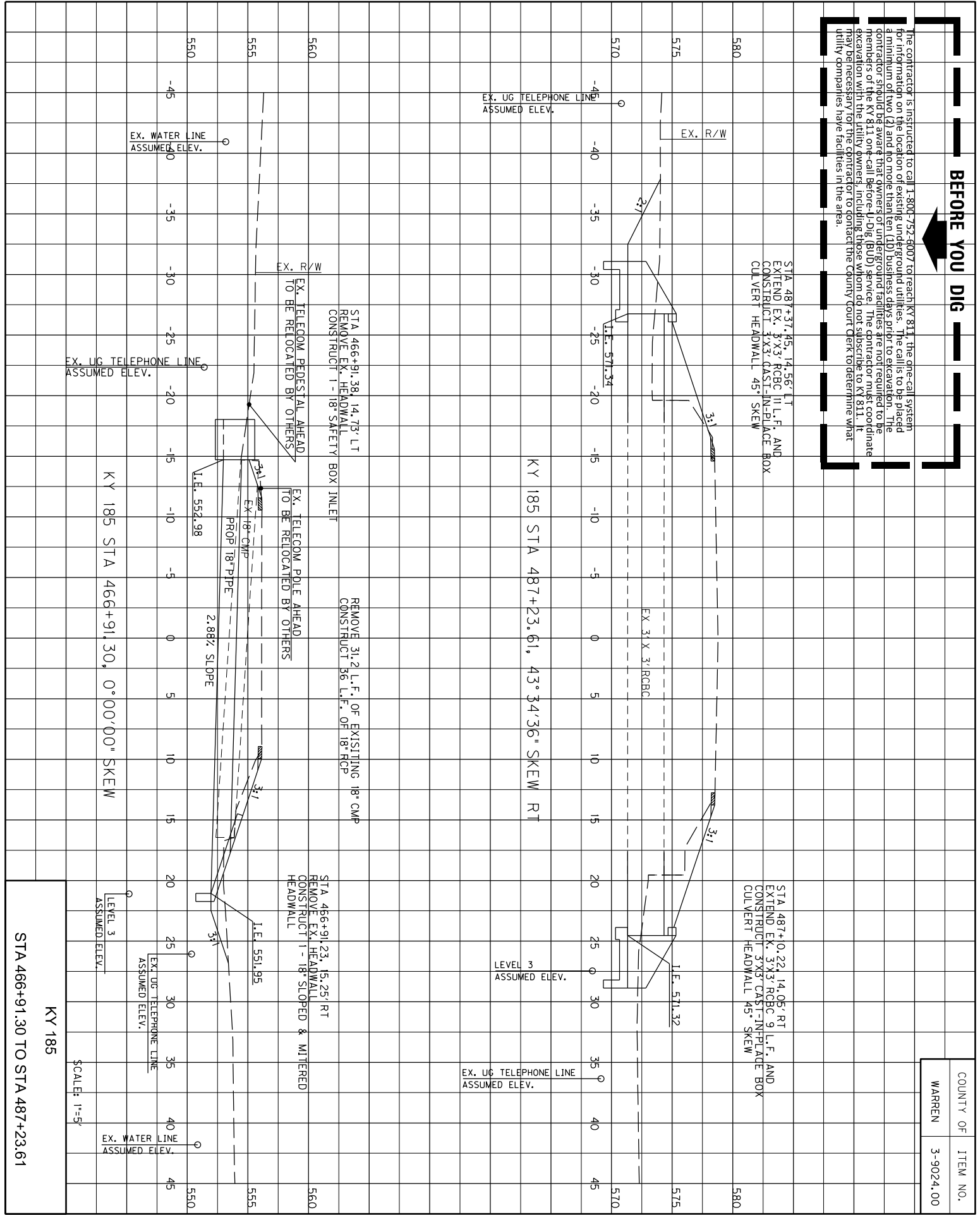
STA 452+15.67 TO STA 457+98.36

KY 185

SCALE: 1"=5'

**BEFORE YOU DIG**

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The calls to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-You-Dig (BYD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

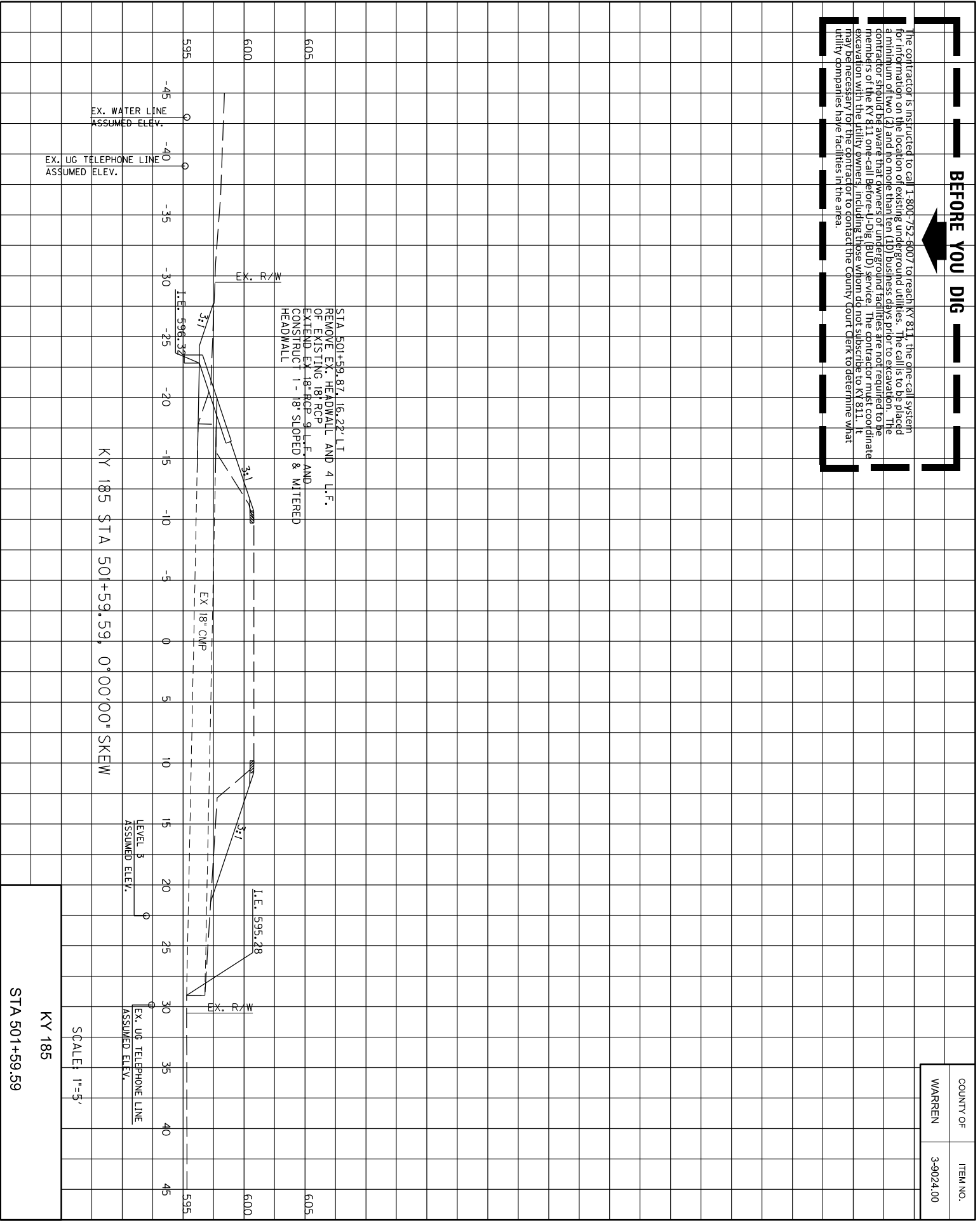


COUNTY OF	ITEM NO.
WARREN	3-9024.00

STA 466+91.30 TO STA 487+23.61  
KY 185  
SCALE: 1"=5'

**BEFORE YOU DIG**

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-You-Dig (BYD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.



COUNTY OF	WARREN
ITEM NO.	3-9024.00

**GENERAL NOTES**

COUNTY OF	ITEM NO.
WARREN	3-9024.00

SPECIFICATIONS, ALL REFERENCES TO THE STANDARD SPECIFICATIONS ARE TO THE CURRENT EDITION OF THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION WITH CURRENT SUPPLEMENTAL SPECIFICATIONS. ALL REFERENCES TO THE AASHTO SPECIFICATIONS ARE TO THE CURRENT EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

DESIGN LOAD: THIS STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE CURRENT AASHTO SPECIFICATIONS. THE EFFECTIVE WEIGHT OF FILL MATERIAL IS 120 LBS/CF AND THE LIVE LOAD IS THE KYHL-93 TRUCK OR TANDEM. THE LIVE LOADS ARE CALCULATED BY INCREASING THE HL-93 DESIGN TRUCK OR TANDEM BY 25%.

DESIGN METHOD: ALL REINFORCED CONCRETE MEMBERS ARE DESIGNED BY THE LOAD RESISTANCE FACTOR METHOD AS SPECIFIED IN THE AASHTO SPECIFICATIONS.

DESIGN STRESSES: FOR CLASS "A" CONCRETE,  $f'_c = 3,500$  P.S.I.,  
 FOR STEEL REINFORCEMENT,  $F_y = 60,000$  P.S.I.,  $n = 9$ .

CONCRETE: CLASS "A" SHALL BE USED THROUGHOUT.

BEVELED EDGES: ALL EXPOSED EDGES SHALL BE BEVELED  $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.

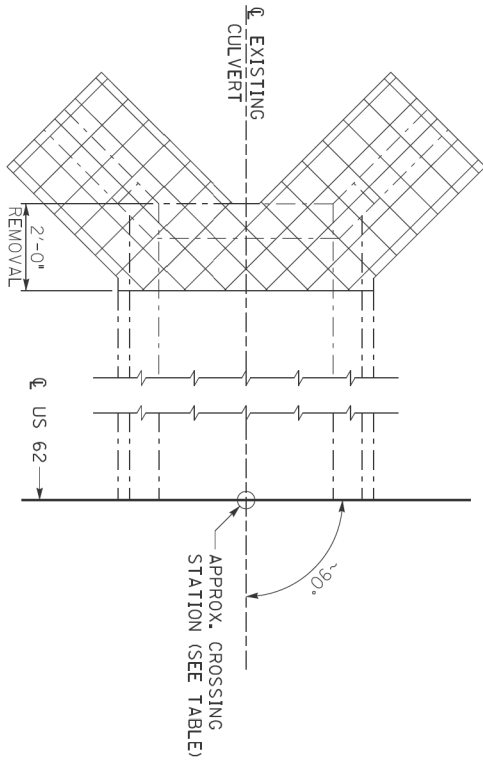
REINFORCEMENT: DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE TO CENTER OF BARS UNLESS OTHERWISE SHOWN. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS. CLEAR DISTANCE TO FACE OF CONCRETE IS 2" UNLESS OTHERWISE NOTED. BARS DESIGNATED BY SUFFIX (E) SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 811.10 OF THE SPECS. BARS DESIGNATED BY SUFFIX (S) SHALL BE CONSIDERED STRIPUPS FOR THE PURPOSE OF BEND DIAMETERS. DUE TO THE GENERIC NATURE OF SOME EXTENSIONS AND LIMITED DETAILS SHOWN HEREIN, FIELD CUT BARS TO FACILITATE PLACEMENT WHENEVER REQUIRED. THIS INCLUDES, BUT IS NOT LIMITED TO, TRANSVERSE AND LONGITUDINAL BARREL BARS NEAR SKEWED ENDS AND VERTICAL & HORIZONTAL WINGWALL BARS.

BONDING TO EXISTING CONCRETE USING STRUCTURAL ADHESIVES: BOND PROPOSED PLASTIC CONCRETE TO EXISTING HARDENED CONCRETE IN ALL LOCATIONS USING A TYPE V EPOXY RESIN OR OTHER APPROVED STRUCTURAL ADHESIVE AS PRESCRIBED IN SECTION 826 OF THE SPECIFICATIONS. FOLLOW THE MANUFACTURER'S APPLICATION INSTRUCTIONS. THE WORK & MATERIAL IS INCIDENTAL TO THE UNIT PRICE FOR CLASS "A" CONCRETE.

CONSTRUCTION NOTE: REMOVE PORTIONS OF THE EXISTING CULVERT TO THE LIMITS SHOWN HEREIN. EXISTING REINFORCING STEEL SHALL BE THOROUGHLY CLEANED OF CONCRETE AND STRAIGHTENED FOR USE TO BOND THE NEW CONCRETE WITH A MINIMUM PROJECTION OF 1'-9", AS AN ALTERNATE, CENTER 3'-0" LONG, #6 DOWEL BARS @ 12" SPACING INTO THE EXISTING SLABS AND WALLS, EMBEDDED 1'-6" INTO EXISTING CULVERT CONCRETE AND SET WITH AN ADHESIVE ANCHORAGE SYSTEM TO PROVIDE A PULLOUT STRENGTH OF EQUAL OR GREATER CAPACITY THAN THE CORRESPONDING REINFORCING STEEL. THE COST OF THE ALTERNATE SHALL BE INCIDENTAL TO THE UNIT PRICE FOR CLASS "A" CONCRETE.

COMPLETION OF STRUCTURE: THE CONTRACTOR IS REQUIRED TO COMPLETE THE STRUCTURE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. MATERIAL, LABOR OR CONSTRUCTION OPERATIONS, NOT OTHERWISE SPECIFIED, ARE TO BE INCLUDED IN THE BID ITEM MOST APPROPRIATE TO THE WORK INVOLVED. THIS MAY INCLUDE COFFERDAMS, SHORING, EXCAVATIONS, BACKFILLING, REMOVAL OF ALL OR PART OF EXISTING STRUCTURES, PHASED CONSTRUCTION, INCIDENTAL MATERIALS, LABOR OR ANY OTHER ITEMS REQUIRED TO COMPLETE THE STRUCTURE. CULVERTS WITH YIELDING FOUNDATIONS: DURING CONSTRUCTION OF THE YIELDING FOUNDATION, ANY POOR SOILS ENCOUNTERED SHOULD BE UNDERCUT TO A MINIMUM OF TWO (2) FEET BELOW THE BOTTOM SLAB OF THE CULVERT OR WINGWALL FOOTINGS, AS APPLICABLE. THE RESULTING EXCAVATED AREAS SHOULD THEN BE BACKFILLED WITH "GRANULAR EMBANKMENT", NON-FERRODIBLE ONLY, MEETING THE MATERIAL REQUIREMENTS OF SECTION 805 IN THE CURRENT EDITION OF THE KENTUCKY STANDARD SPECIFICATIONS.

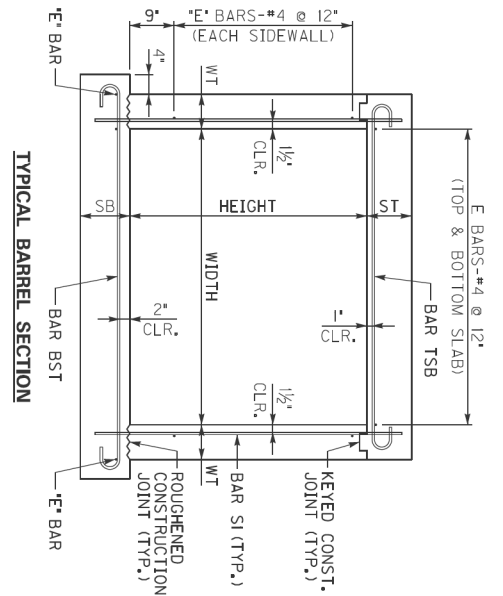
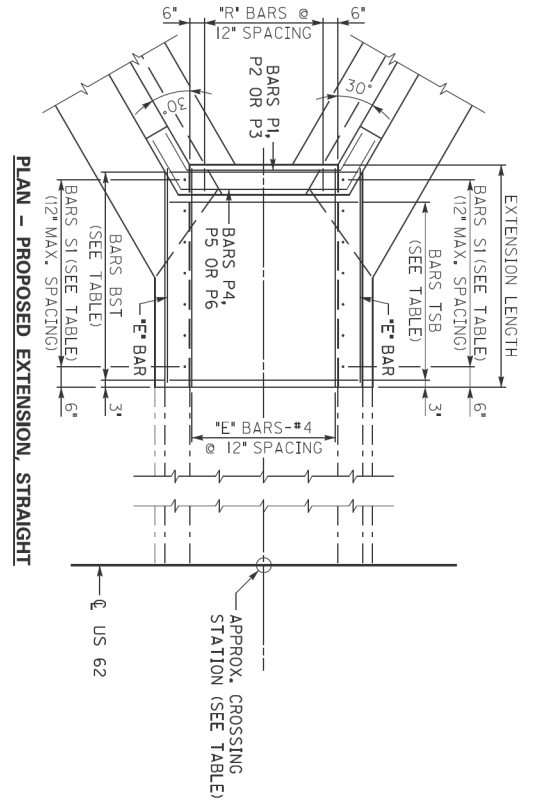
CULVERTS WITH UNYIELDING FOUNDATIONS: IF SOLID ROCK IS NOT ENCOUNTERED AT THE DESIGN FOOTING ELEVATION, SOIL MUST BE EXCAVATED AND BACKFILLED WITH "GRANULAR EMBANKMENT", NON-FERRODIBLE ONLY, MEETING THE MATERIAL REQUIREMENTS OF SECTION 805 IN THE CURRENT EDITION OF THE KENTUCKY STANDARD SPECIFICATIONS WITH THE EXCEPTION THAT THE MAX. SIZE IS 4 INCHES.



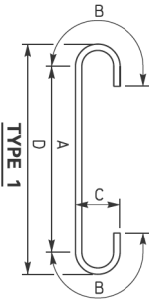
**SINGLE BARREL, STRAIGHT**

APPROXIMATE LIMITS OF REMOVAL —  **DEMOLITION OF EXISTING CULVERT**

**SCALE: NO SCALE**

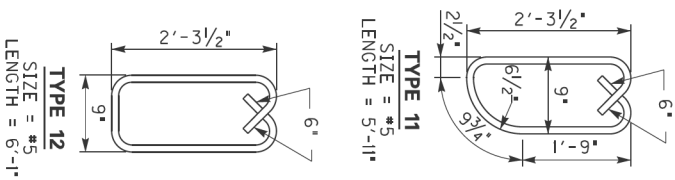
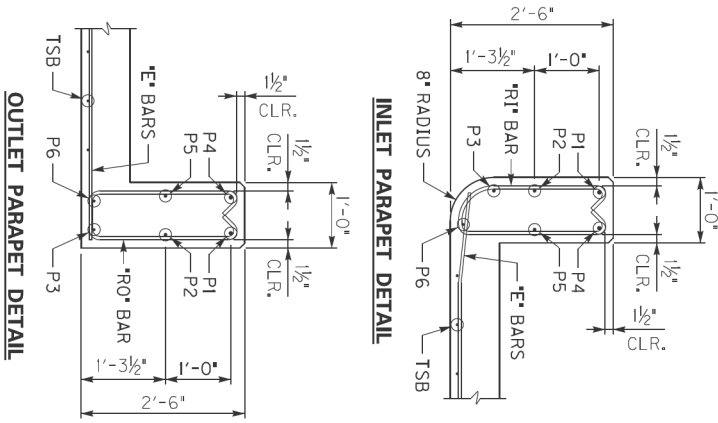
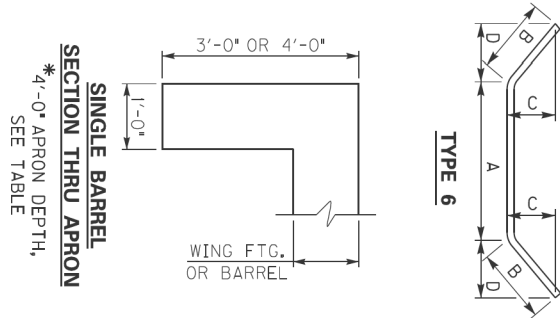
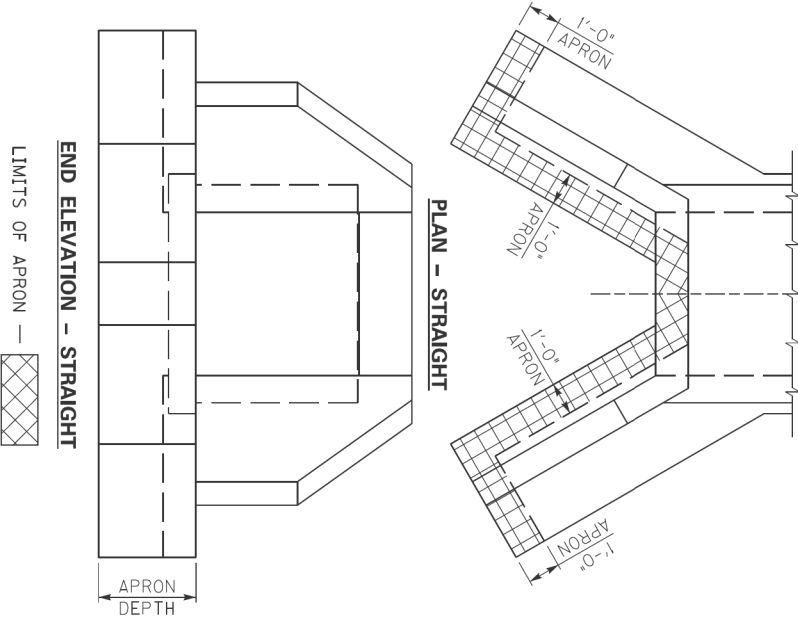


REBAR NOTES:  
BARS #S1 & #S2 ARE STRAIGHT BARS. THE TOTAL BAR NUMBER LISTED IN THE TABLE IS THE TOTAL NUMBER REQUIRED AT EACH STATION.



COUNTY OF	ITEM NO.
WARREN	3-9024.00

SCALE: NO SCALE  
KY 185  
CULVERT EXTENSION DETAILS  
SHEET 2 OF 11



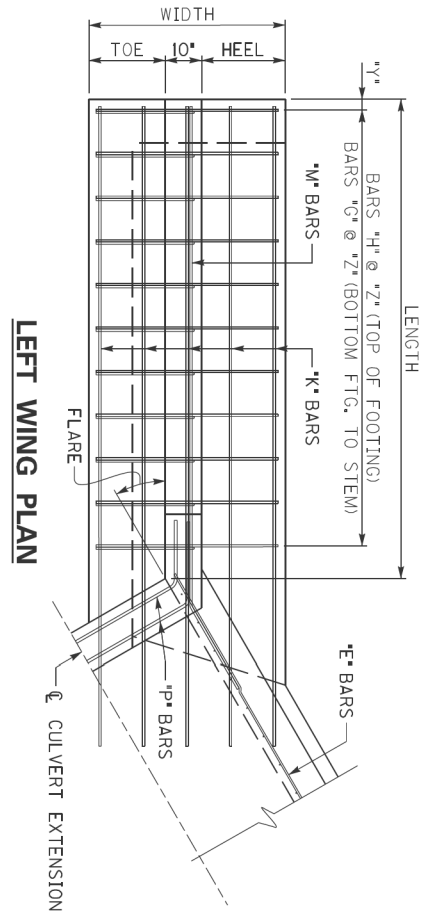
COUNTY OF	ITEM NO.
WARREN	3-9024.00

SCALE: NO SCALE

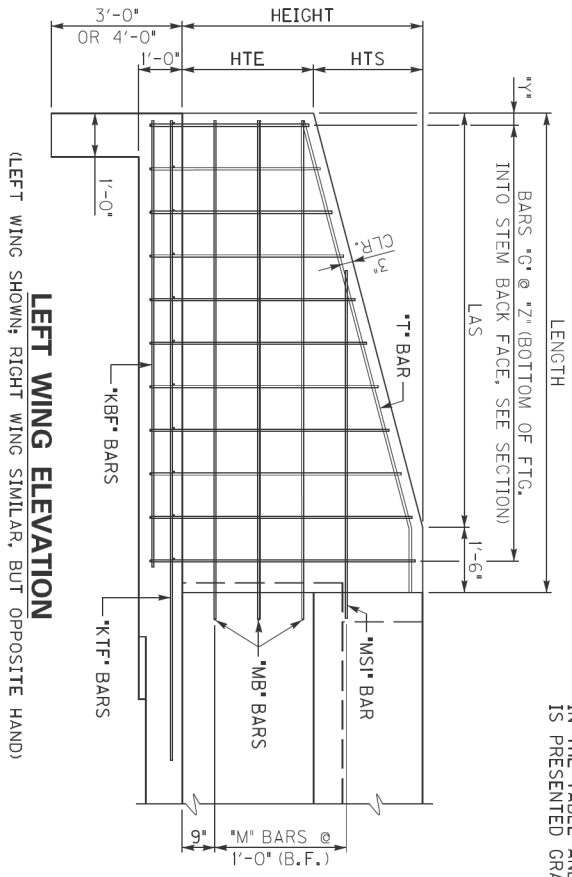
CULVERT EXTENSION DETAILS

KY 185

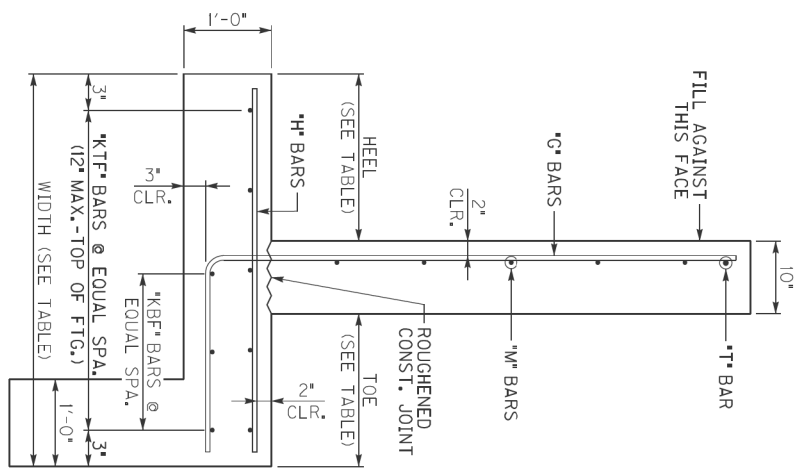
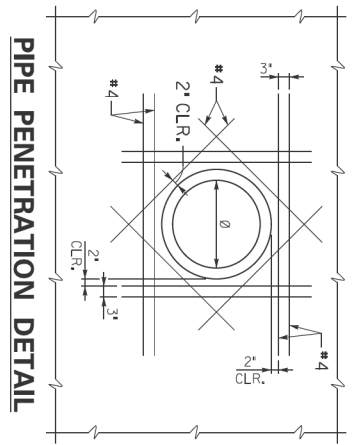
SHEET 3 OF 11



NOTE:  
WING DETAILS SHOWN ARE A GRAPHICAL REPRESENTATION ONLY AND NOT TO SCALE. THE NUMBER OF BARS REQUIRED IS SHOWN IN THE TABLE AND MAY DIFFER FROM WHAT IS PRESENTED GRAPHICALLY.



NOTE:  
FOR WING DIMENSION & REINFORCING VARIABLES, SEE NEXT SHEET.



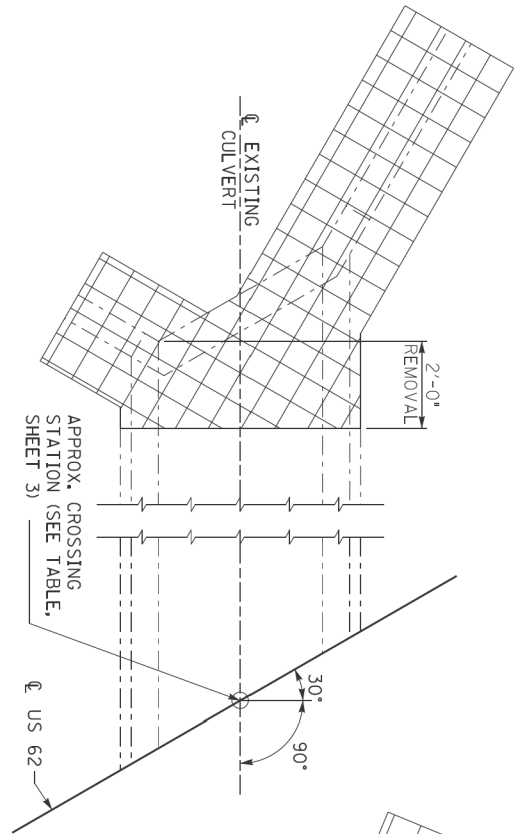
KY 185  
 CULVERT EXTENSION DETAILS  
 SHEET 4 OF 11  
 SCALES: NO SCALE

COUNTY OF	ITEM NO.
WARREN	3-9024.00

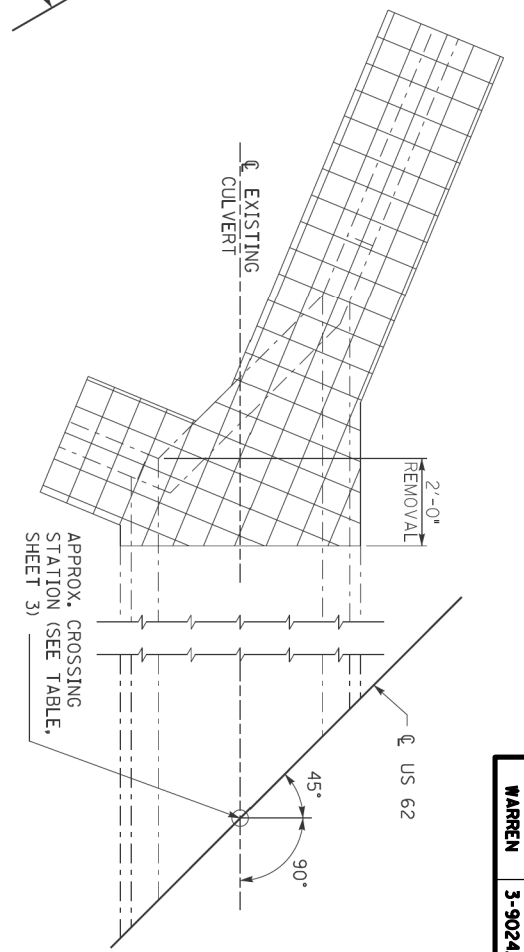




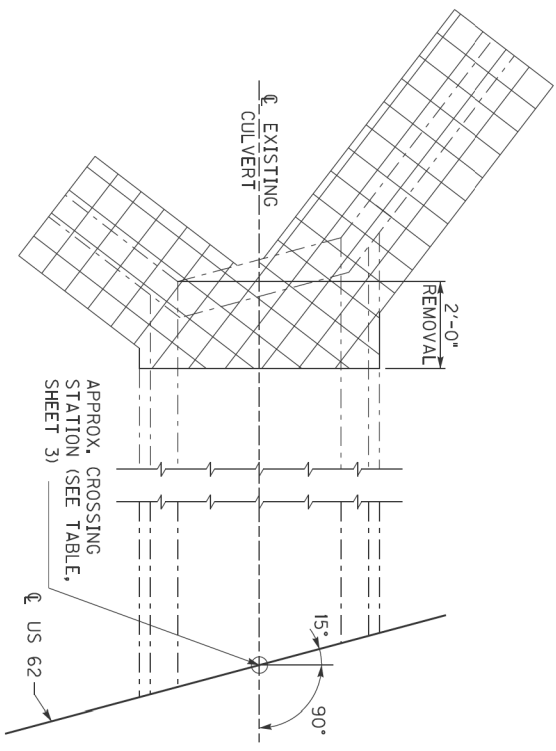
COUNTY OF	ITEM NO.
WARREN	3-9024.00



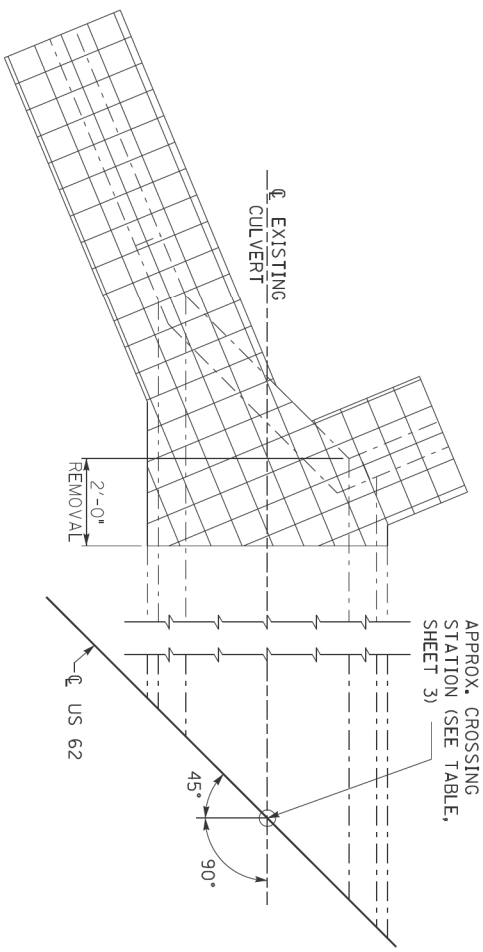
**STANDARD CULVERT, 30° SKEW RT.**



**STANDARD CULVERT, 45° SKEW RT.**



**STANDARD CULVERT, 15° SKEW RT.**



**STANDARD CULVERT, 45° SKEW LT.**

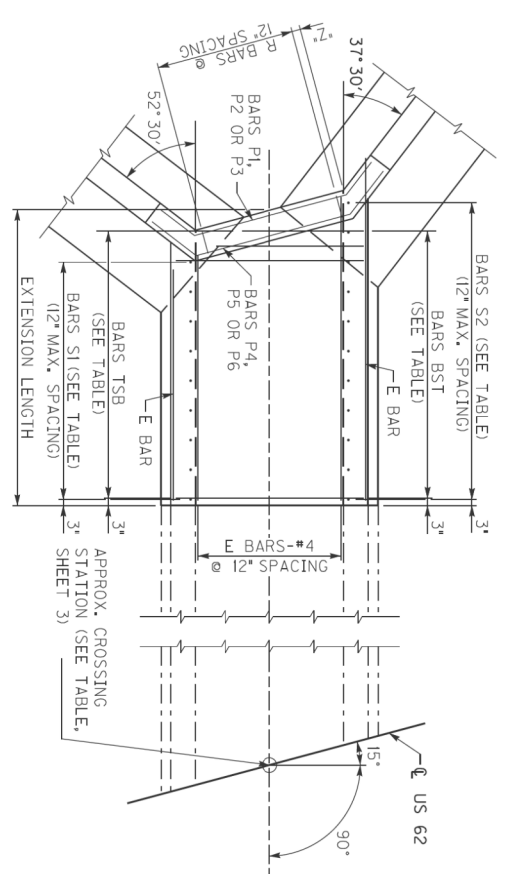
**NOTE:**  
FOR GENERAL NOTES, SEE DEMOLITION  
DETAILS FOR STANDARD STRAIGHT CULVERT

APPROXIMATE LIMITS OF REMOVAL — 

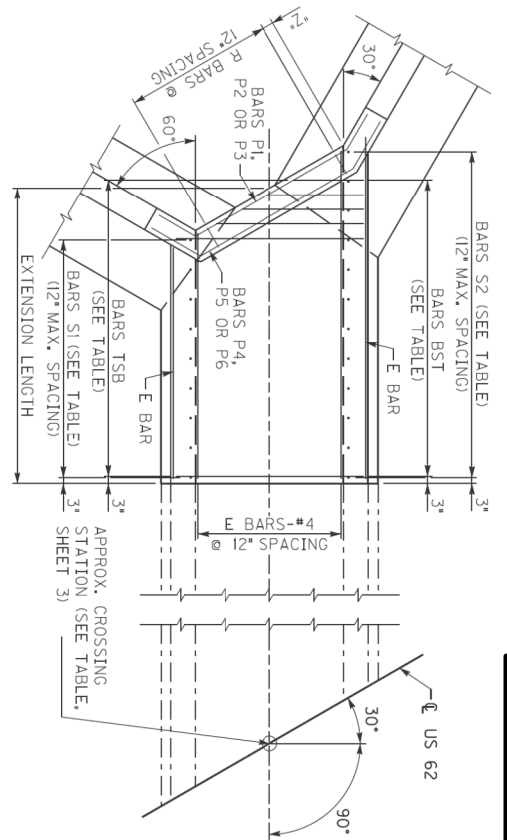
**DEMOLITION OF EXISTING CULVERT**

**SCALE: NO SCALE**

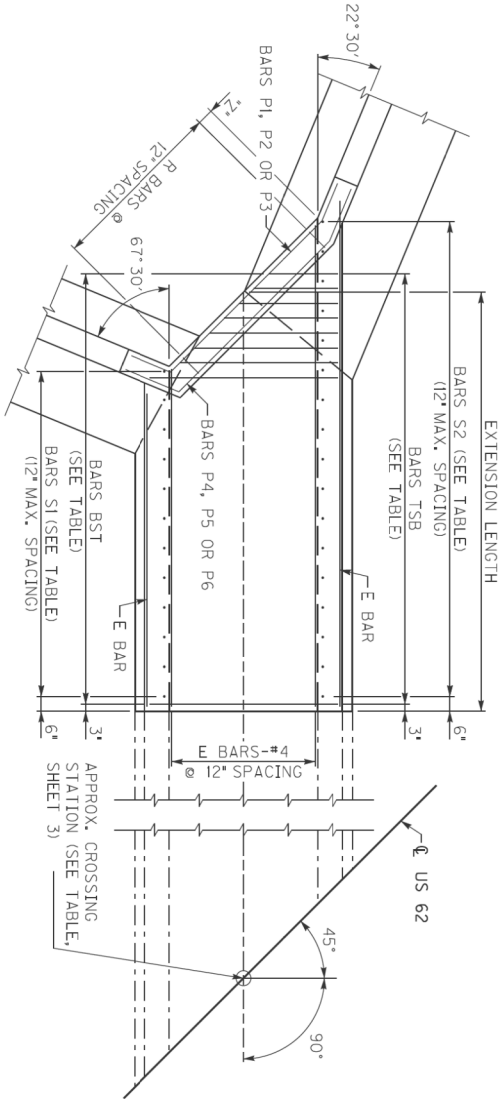
KY 185  
CULVERT EXTENSION DETAILS  
SHEET 6 OF 11



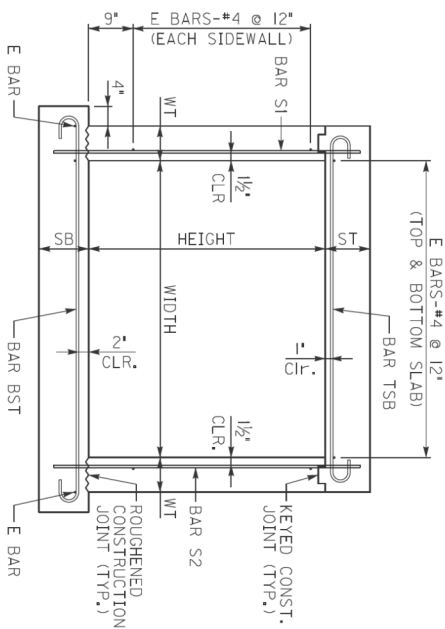
PLAN - PROPOSED EXTENSION, 15° SKEW RT.



PLAN - PROPOSED EXTENSION, 30° SKEW RT.



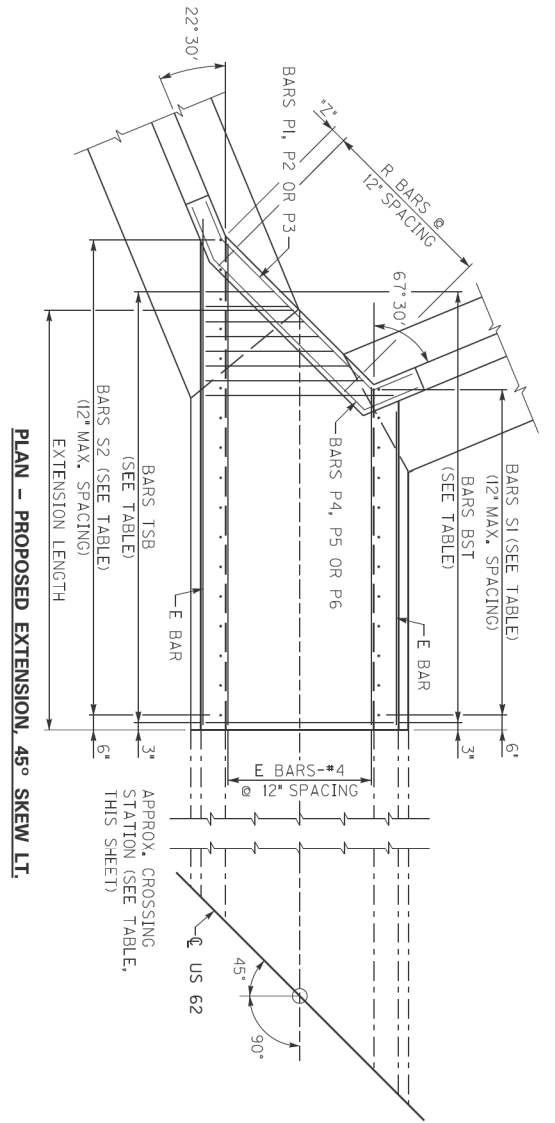
PLAN - PROPOSED EXTENSION, 45° SKEW RT.



TYPICAL BARREL SECTION

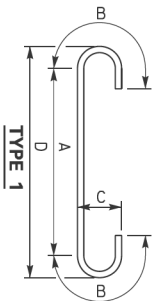
SCALE: NO SCALE  
 KY 185  
 CULVERT EXTENSION DETAILS  
 SHEET 7 OF 11

COUNTY OF	ITEM NO.
WARREN	3-9024.00



PLAN - PROPOSED EXTENSION, 45° SKEW LT.

REBAR NOTES:  
BARS "S1", "S2" & "E" ARE STRAIGHT BARS. "E" BAR LENGTH IS GIVEN ALONG THE LONGEST SIDE FOR SKEWED CONDITIONS AND SHALL BE FIELD CUT TO FACILITATE PLACEMENT ELSEWHERE. SIMILARLY, BARS "BST" & "TSB" ARE DIMENSIONED PERPENDICULAR TO THE BOX OPENING AND SHALL BE FIELD CUT AT THE SKEWED END TO FACILITATE PLACEMENT. MAINTAIN A 2" CLEARANCE FROM THE CONCRETE FACE FOR ALL FIELD CUT BARS. THE TOTAL BAR NUMBER LISTED IN THE TABLE IS THE NUMBER REQUIRED AT EACH STATION.

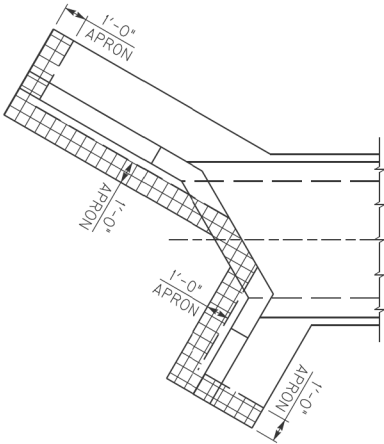


TYPE 1

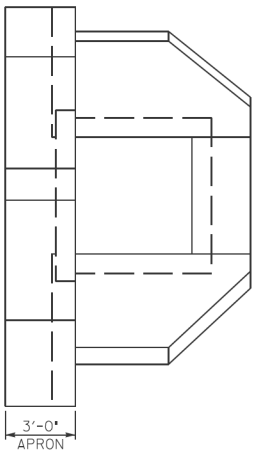
SCALE: NO SCALE

KY 185  
CULVERT EXTENSION DETAILS  
SHEET 8 OF 11

COUNTY OF	ITEM NO.
WARREN	3-9024.00



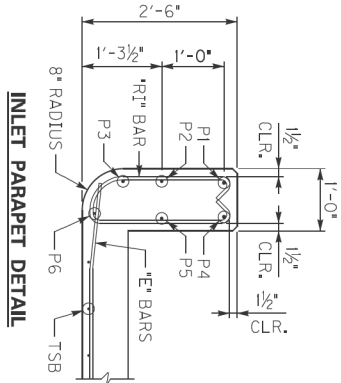
PLAN - SKEW RT.



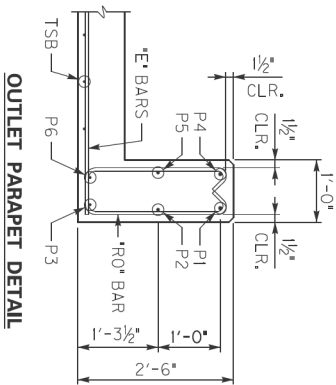
END ELEVATION - SHOWING SKEW RT.  
(SKEW LEFT SIMILAR, BUT OPPOSITE HAND)



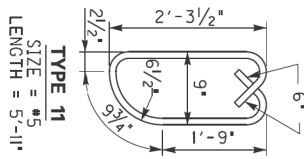
LIMITS OF APRON CONSTRUCTION



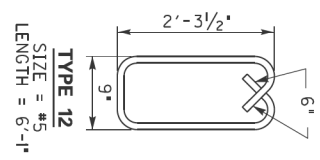
INLET PARAPET DETAIL



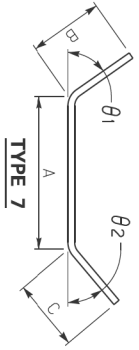
OUTLET PARAPET DETAIL



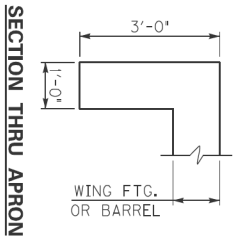
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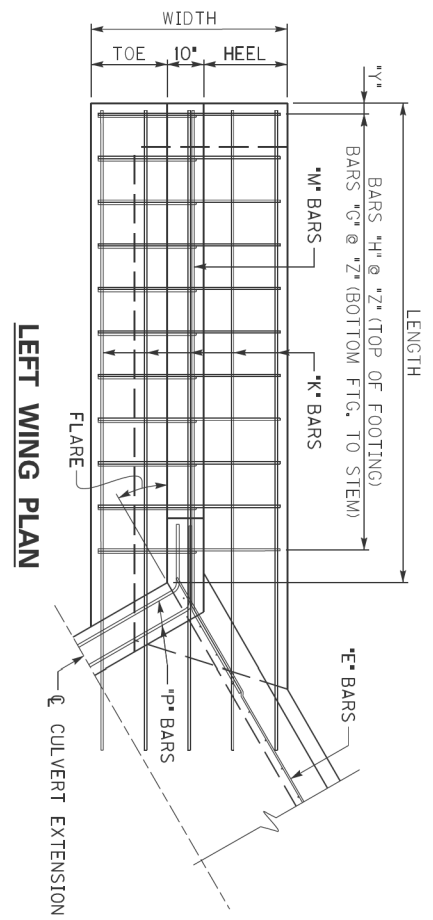


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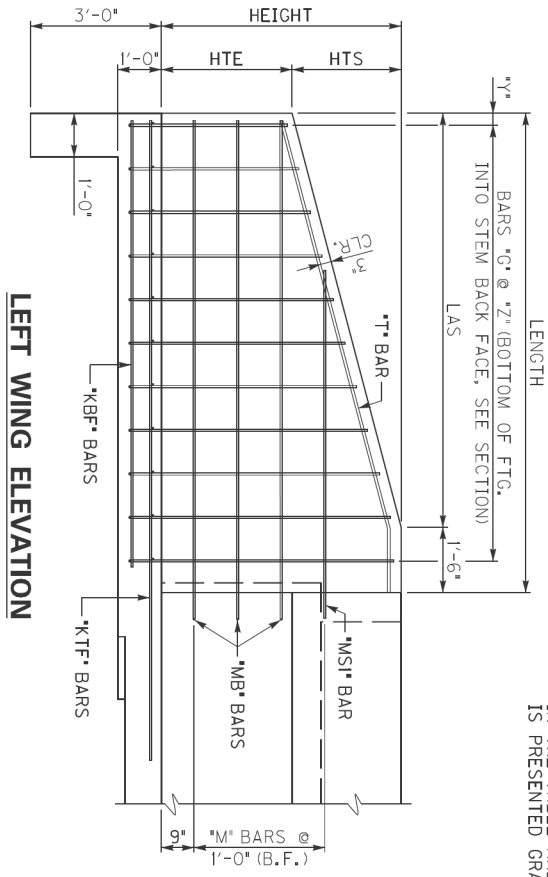


SECTION THRU APRON

SCALE: NO SCALE  
KY 185  
CULVERT EXTENSION DETAILS  
SHEET 9 OF 11

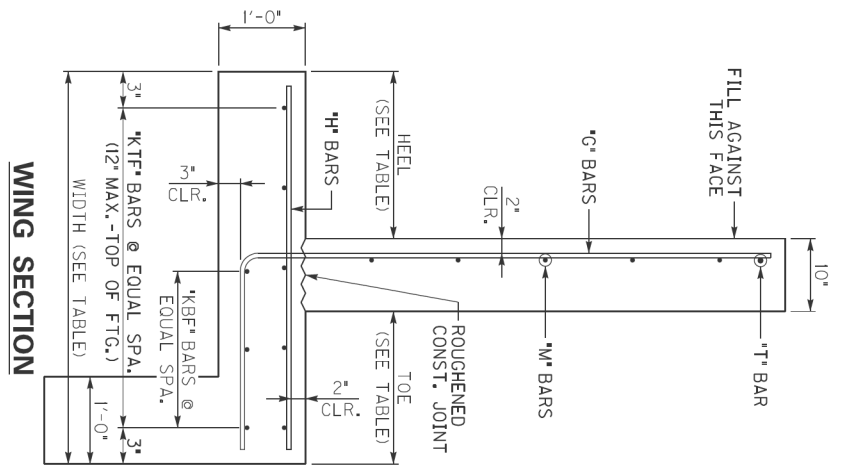


NOTE:  
DUE TO THE CULVERT SKEW TO ROADWAY,  
LEFT & RIGHT WINGS WILL VARY IN LENGTH,  
BAR TOTALS AND FOOTING SIZE. LEFT WING DETAILS  
SHOWN HERE; RIGHT WING LAYOUT SIMILAR.



NOTE:  
WING DETAILS SHOWN ARE A GRAPHICAL  
REPRESENTATION ONLY AND NOT TO SCALE.  
THE NUMBER OF BARS REQUIRED IS SHOWN  
IN THE TABLE AND MAY DIFFER FROM WHAT  
IS PRESENTED GRAPHICALLY.

NOTE:  
FOR WING DIMENSION & REINFORCING  
VARIABLES, SEE SHEET 6.



SCALE: NO SCALE  
KY 185  
CULVERT EXTENSION DETAILS  
SHEET 10 OF 11

COUNTY OF	ITEM NO.
WARREN	3-9024.00

COUNTY OF WARREN  
 ITEM NO. 3-9024.00

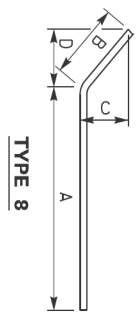
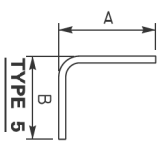
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9.228	487+24	45° RT	3'-0"	3'-0"	10	INLET	7	8	10	21	#4	6"	6'-0"	4'-8"	0'-8"	0'-4"	5'-0"	21	#4	6"	5'-4"	4'-0"	0'-8"	0'-4"	4'-4"	9	#4	3'-10"	11	#4	3'-10"	16	11'-6"			
9.228	487+24	45° RT	3'-0"	3'-0"	11	OUTLET	7	8	10	23	#4	6"	6'-0"	4'-8"	0'-8"	0'-4"	5'-0"	23	#4	6"	5'-4"	4'-0"	0'-8"	0'-4"	4'-4"	10	#4	3'-10"	12	#4	3'-10"	16	12'-6"			

EXISTING DATA				DIMENSIONS																																			
MP	STA.	SKEW	WIDTH	HEIGHT	EXT. END	ST	SB	WT	NO.	SIZE	SPL. LENGTH	A	B	C	D	NO.	SIZE	SPL. LENGTH	A	B	C	D	NO.	SIZE	SPL. LENGTH	A	B	C	D	NO.	SIZE	SPL. LENGTH	A	B	C	D			
9.228	487+24	45° RT	3'-0"	3'-0"	2				2	#4	2	7'-3"	4'-5"	1'-5"	1'-5"	6'-7.5"	22.5'	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

GENERAL DATA				DIMENSIONS																																
MP	STA.	SIZE	EXT. END	FLARE	WING	NO.	LENGTH	L&S	WIDTH	HEEL	TOE	HEIGHT	HTE	HTS	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE
9.228	487+24	3'-0"	22.5'	BOTH	LEFT	2	12'-0"	10'-6"	4'-7"	2'-0"	1'-9"	5'-6"	3'-3"	2'-3"	24	#5	3"	12"	8'-4"	6'-5"	2'-3"	24	#5	3"	12"	7'-7"	6'-5"	1'-6"	10	#5	3"	12"	12"	2'-8"		
9.228	487+24	3'-0"	22.5'	BOTH	RIGHT	2	5'-0"	3'-6"	3'-10"	1'-2"	1'-0"	5'-6"	3'-3"	2'-3"	10	#5	3"	12"	7'-7"	6'-5"	1'-6"	10	#5	3"	12"	7'-7"	6'-5"	1'-6"	10	#5	3"	12"	12"	2'-8"		

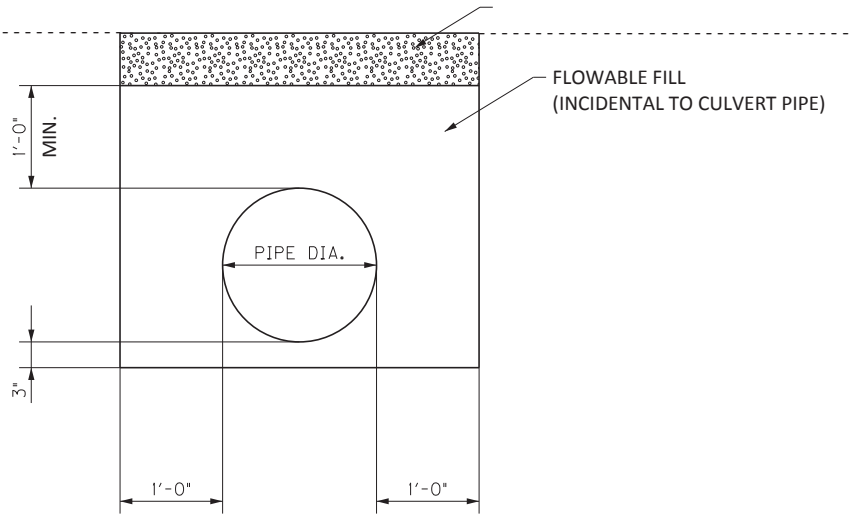
GENERAL DATA				DIMENSIONS																																
MP	STA.	SIZE	EXT. END	FLARE	WING	NO.	LENGTH	L&S	WIDTH	HEEL	TOE	HEIGHT	HTE	HTS	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE
8.376	442+24	3'-0"	67.5'	BOTH	RIGHT	4	#5	4'-3"	8	#5	6'-5"	6	#5	7'-0"	4'-10"	2'-2"	1'-1"	1'-10"	2	#5	4'-6"	2	12'-7"	4'-0"	2'-0"	1'-1"	1'-11"	1'-8"	1'-11"	1'-8"	1'-11"	1'-8"	1'-11"	1'-8"	1'-11"	1'-8"

REBAR NOTES:  
 BARS "KBF", "KTF", "H" & "MSI" ARE STRAIGHT BARS. THE "G" BAR STEM LEG LENGTH IS GIVEN AT THE TALLEST POINT FOR THE SLOPING WING AND SHALL BE FIELD CUT TO FACILITATE CONCRETE PLACEMENT. SOME "KTF" & "MB" BARS ALSO REQUIRE A FIELD CUT TO FACILITATE PLACEMENT OF CONCRETE. ALL FIELD CUT BARS SHALL MAINTAIN A 2" MIN. CLEARANCE FROM THE CONCRETE FACE. THE BAR NUMBER TOTAL LISTED IN THE TABLE IS THE TOTAL NUMBER REQUIRED AT EACH STATION.



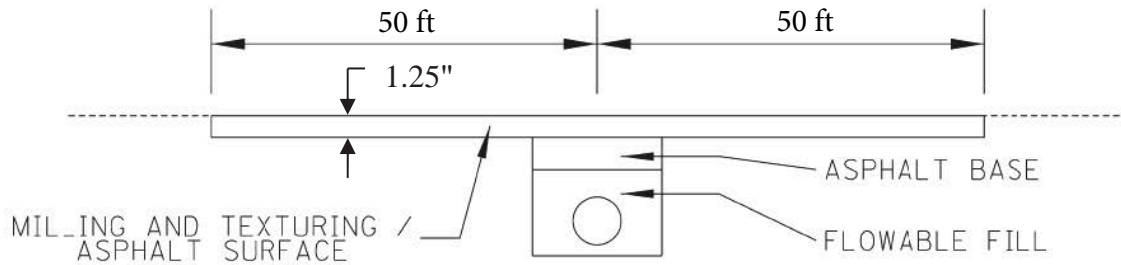
SCALE: NO SCALE  
 KY 185  
 CULVERT EXTENSION DETAILS  
 SHEET 11 OF 11

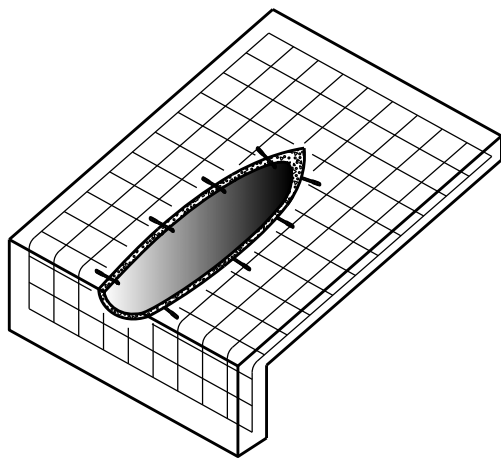
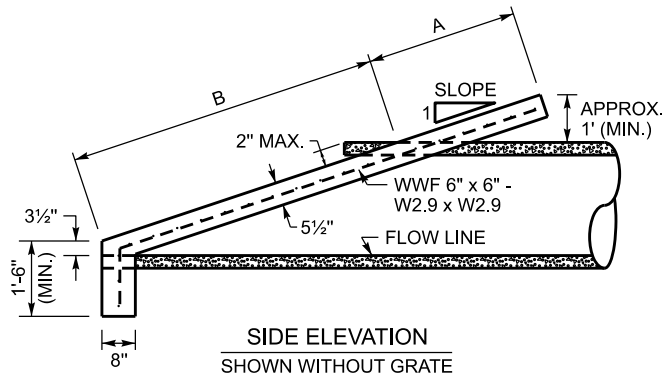
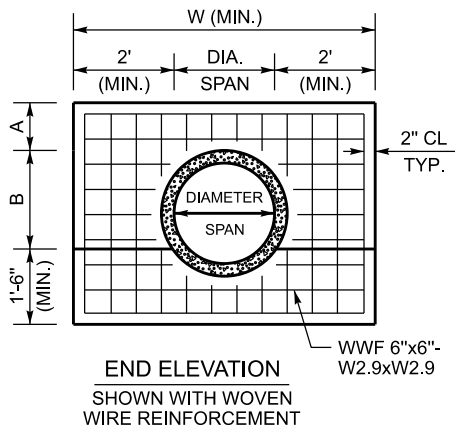
### CULVERT PIPE REPLACEMENT DETAIL



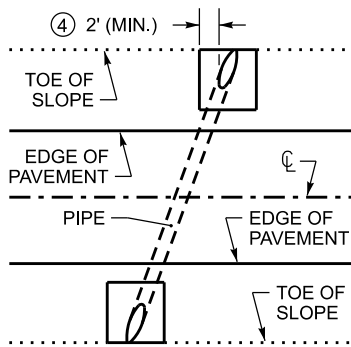
#### CULVERT PIPE REPLACEMENTS - INITIAL BACKFILL

Culvert Pipe Replacements shall be constructed according to the Initial Backfill Detail shown above, or as directed by the Engineer. Allow the asphalt base to be exposed to traffic a minimum of 14 days to allow for settlement. After the 14 day waiting period, mill and inlay 1.25 inches of asphalt surface according to the detail below.





ISOMETRIC VIEW  
SHOWN WITH WOVEN WIRE REINFORCEMENT  
AND WEDGE ANCHORS



PLAN VIEW  
SHOWN WHEN THE PIPE IS ON A SKEW ④

~ NOTES ~

1. FOR PIPES THAT RECEIVE THE SLOPED & MITERED CONCRETE HEADWALL, THE PIPE LENGTH SHALL BE MEASURED TO THE FURTHEST POINT ALONG THE MITERED END OF THE PIPE.
2. THE EMBANKMENT FILL MATERIAL IS TO BE PLACED, COMPACTED, AND GRADED AROUND THE PIPE BEFORE THE CONCRETE SLOPE PAVING IS PLACED. THE INTENT IS FOR THE SLOPED & MITERED HEADWALL TO MATCH THE FINAL EMBANKMENT SLOPE.
3. THE PIPE SHALL BE MITERED AFTER THE CONCRETE SLOPE PAVING HAS BEEN PLACED AND SUFFICIENTLY CURED. THE PIPE SHOULD BE MITERED AS CLOSE TO FLUSH WITH THE SLOPE PAVING AS POSSIBLE, AND NO HIGHER THAN 2" ABOVE THE SLOPE PAVING. HAND FINISHING AND/OR CUTTING MAY BE NECESSARY.
- ④ WHEN THE PIPE IS ON A SKEW, INSTALL THE HEADWALL AND MITER THE PIPE SO THAT THE CONCRETE SLOPE PAVING IS PERPENDICULAR TO THE ROADWAY. FOR HEADWALLS ON SKEWED PIPES, THE HEADWALL WIDTH, W, SHALL BE WIDENED, AS NEEDED, SO THAT THE OUTSIDE EDGE OF THE CONCRETE SLOPE PAVING IS A MINIMUM OF 2' FROM THE OUTER MOST EDGE OF THE PIPE.
5. THE DIMENSION 'A' IS BASED ON THE FINAL GRADED SLOPE. THE DIMENSION 'B' IS BASED ON CIRCULAR REINFORCED CONCRETE PIPE AT 0° SKEW FOR THE LISTED SLOPE. THE DIMENSION 'W' IS BASED ON THE DIAMETER, OR SPAN, OF THE PIPE. THE FINAL HEADWALL DIMENSIONS AND CONCRETE QUANTITIES MAY VARY BASED ON THE FINAL GRADED SLOPE, PIPE SKEW, AND/OR TYPE OF PIPE.
6. WOVEN WIRE REINFORCEMENT (WWF 6"x6" - W2.9xW2.9) IS REQUIRED FOR THE SLOPE PAVING AND TOE WALL. UTILIZE 2" CLEARANCE FROM ALL EDGES.
7. DIMENSIONS AND CONCRETE QUANTITIES SHOWN ARE FOR ONE (1) HEADWALL, INSTALLED ON A PIPE WITH SKEW = 0°.
8. AFTER THE PIPE HAS BEEN MITERED, ANCHOR THE PIPE TO THE CONCRETE SLOPE PAVING BY CORE DRILLING AND INSTALLING 1/2" DIAMETER x 7" LENGTH STEEL WEDGE ANCHORS (3" MINIMUM EMBEDMENT) ON 18" CENTERS ALONG THE SIDES OF THE PIPE. HOLE SIZE & DEPTH, TORQUE, & INSTALLATION PROCEDURES PER RECOMMENDATION OF ANCHOR MANUFACTURE. NOTE: STEEL WEDGE ANCHORS ARE NOT REQUIRED FOR REINFORCED CONCRETE PIPE.
- ⑨ THE FOLLOWING SITUATIONS REQUIRE A HEADWALL WITH A GRATE:
  - 24" DIAMETER PIPE ON GREATER THAN 30° SKEW
  - 30" DIAMETER PIPE ON GREATER THAN 15° SKEW
  - PIPE WITH GREATER THAN 30" DIAMETER.
  - ELLIPTICAL PIPE GREATER THAN 24" EQUIVALENT DIAMETER
 SEE SHEET 2 FOR GRATE DETAILS
10. ALL BOLTS AND HARDWARE SHALL BE RUST RESISTANT: ZINC PLATED, STAINLESS STEEL, OR STEEL THAT HAS BEEN GALVANIZED IN ACCORDANCE WITH AASHTO M 232.

\*\* DIMENSIONS AND CONCRETE QUANTITIES ARE APPROXIMATE AND ARE LISTED FOR INFORMATIONAL PURPOSES ONLY \*\*

DIMENSIONS AND CONCRETE QUANTITIES (FOR PIPE WITH SKEW = 0°) ④													
PIPE SIZE	3:1 SLOPE				4:1 SLOPE				6:1 SLOPE				GRATE REQUIRED
	A	B	W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE	
15"	3'	3'-7½"	5'-3"	0.79	4'	4'-8¾"	5'-3"	0.97	6'	6'-11¼"	5'-3"	1.35	NO
18"	3'	4'-5¾"	5'-6"	0.89	4'	5'-10"	5'-6"	1.10	6'	8'-7¼"	5'-6"	1.54	NO
24"	3'	6'-2½"	6'-0"	1.11	4'	8'-1"	6'-0"	1.38	6'	11'-11"	6'-0"	1.93	SEE ⑨
30"	3'	7'-10¼"	6'-6"	1.33	4'	10'-3¾"	6'-6"	1.67	6'	15'-2½"	6'-6"	2.35	SEE ⑨

++ SEE SHEET 2 FOR DIMENSIONS OF HEADWALLS FOR PIPE OVER 30" DIAMETER ++

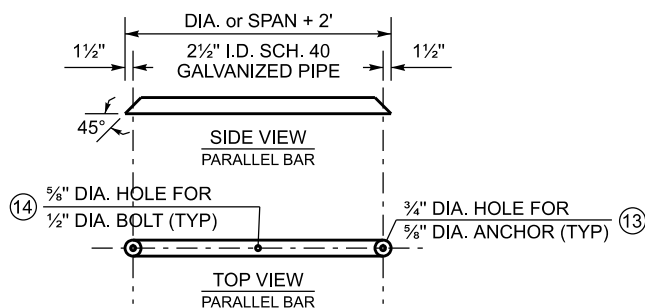
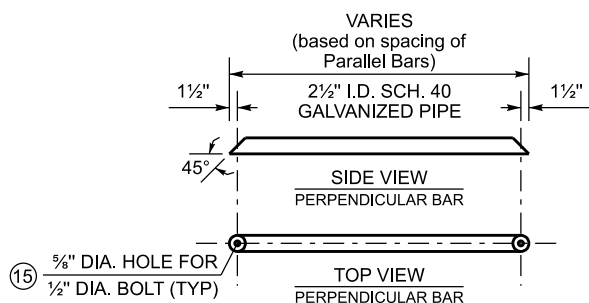
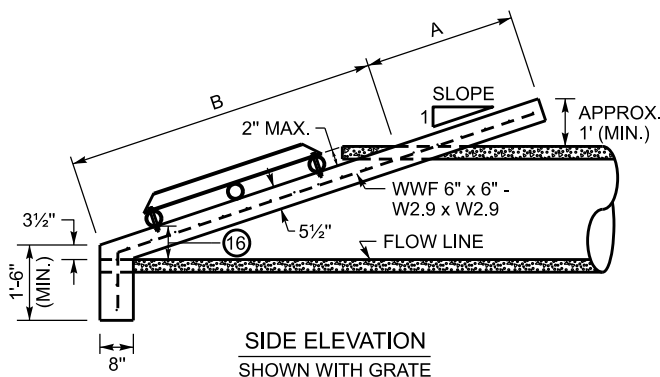
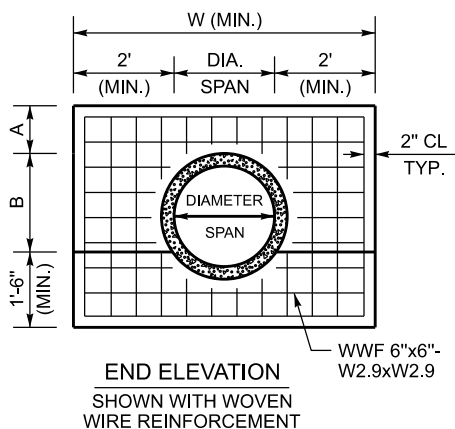
BID ITEM AND UNIT TO BID FOR PIPES BETWEEN 15 - 42 INCHES:  
SLOPED & MITERED HEADWALL - \_ IN EACH

BID ITEM AND UNIT TO BID FOR PIPES LARGER THAN 42 INCHES:  
HEADWALL (SLOPED & MITERED FOR \_ INCH PIPE) EACH

NOT TO SCALE

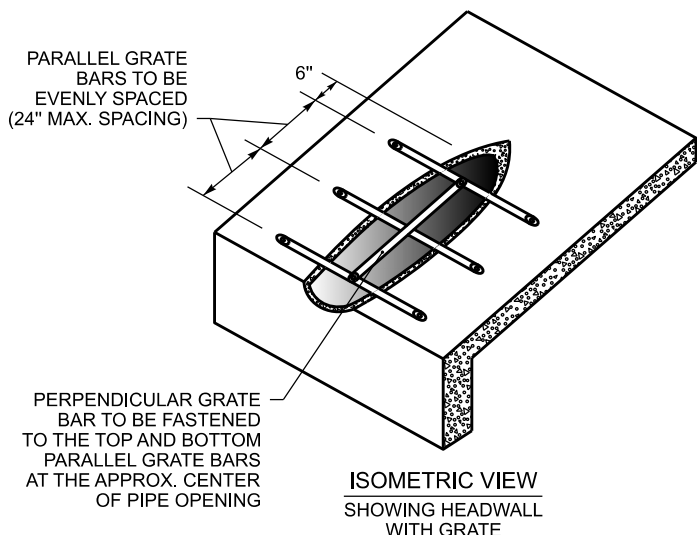
SLOPED & MITERED  
CONCRETE HEADWALL  
(SHEET 1 OF 2)





**PIPE FOR GRATE DETAILS**

SEE NOTE 9 TO DETERMINE IF GRATE IS REQUIRED



**~ NOTES ~**

SEE SHEET 1 FOR NOTES 1 THRU 8

9. THE FOLLOWING SITUATIONS REQUIRE A HEADWALL WITH GRATE:
  - 24" DIAMETER PIPE ON GREATER THAN 30° SKEW
  - 30" DIAMETER PIPE ON GREATER THAN 15° SKEW
  - PIPE WITH GREATER THAN 30" DIAMETER.
  - ELLIPTICAL PIPE GREATER THAN 24" EQUIVALENT DIAMETER
10. ALL BOLTS AND HARDWARE SHALL BE RUST RESISTANT: ZINC PLATED, STAINLESS STEEL, OR STEEL THAT HAS BEEN GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
11. THE PIPE USED TO CONSTRUCT THE GRATE SHALL BE STEEL, SCHEDULE 40, CONFORMING TO ASTM A53, AND GALVANIZED IN ACCORDANCE WITH AASHTO M 111 AFTER FABRICATION.
12. ANY RAW METAL EXPOSED BY FIELD CUTTING AND/OR DRILLING SHALL BE TREATED WITH A COLD GALVANIZING COMPOUND.
13. FASTEN PARALLEL BARS TO HEADWALL WITH 5/8" DIA. x 4 1/2" LENGTH STEEL WEDGE ANCHORS, MINIMUM EMBEDMENT = 2 3/4" HOLE SIZE AND DEPTH, TORQUE, & INSTALLATION PROCEDURES PER RECOMMENDATION OF ANCHOR MANUFACTURE.
14. CENTER BOLT HOLE SHALL ONLY BE DRILLED IN THE TOP AND BOTTOM PARALLEL BARS.
15. FASTEN THE PERPENDICULAR BAR TO THE TOP AND BOTTOM PARALLEL BARS WITH 1/2" DIA. x 4" LENGTH HEX HEAD BOLTS, HEX HEAD NUTS, & FLAT WASHERS.
16. THE BOTTOM PARALLEL BAR IS TO BE PLACED SO THAT IT IS APPROX. 6" ABOVE THE FLOWLINE OF THE PIPE.

\*\* DIMENSIONS AND CONCRETE QUANTITIES ARE APPROXIMATE AND ARE LISTED FOR INFORMATIONAL PURPOSES ONLY \*\*

DIMENSIONS AND CONCRETE QUANTITIES (FOR PIPE WITH SKEW = 0°) ④													
PIPE SIZE	3:1 SLOPE				4:1 SLOPE				6:1 SLOPE				GRATE REQUIRED
	A	B	W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE	
36"	3'	9'-7 1/2"	7'-0"	1.57	4'	12'-6 1/2"	7'-0"	1.98	6'	18'-6"	7'-0"	2.80	YES
42"	3'	11'-4"	7'-6"	1.83	4'	14'-9 1/4"	7'-6"	2.31	6'	21'-9 1/2"	7'-6"	3.27	YES
48"	3'	12'-11"	8'-0"	2.07	4'	16'-10"	8'-0"	2.40	6'	24'-10"	8'-0"	3.33	YES

++ SEE SHEET 1 FOR DIMENSIONS OF HEADWALLS FOR PIPE 30" DIAMETER & LESS ++

BID ITEM AND UNIT TO BID FOR PIPES BETWEEN 15 - 42 INCHES:  
SLOPED & MITERED HEADWALL - \_ IN EACH

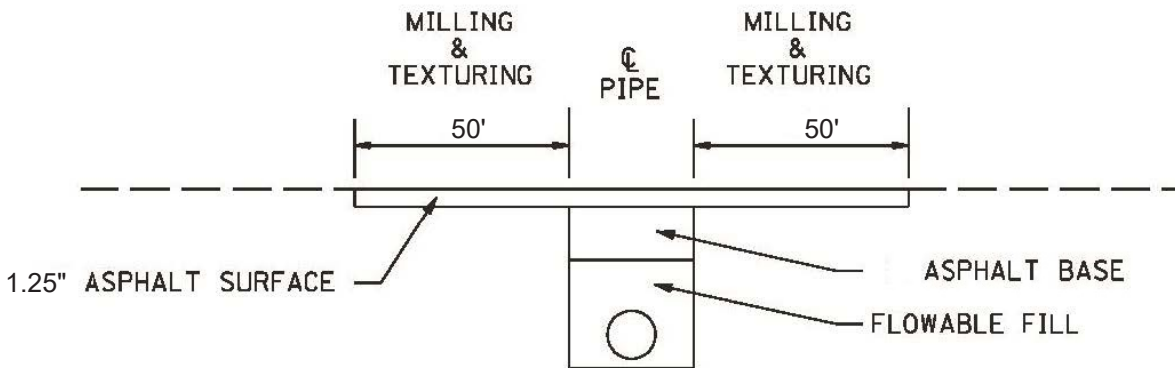
BID ITEM AND UNIT TO BID FOR PIPES LARGER THAN 42 INCHES:  
HEADWALL (SLOPED & MITERED FOR \_ INCH PIPE) EACH

NOT TO SCALE

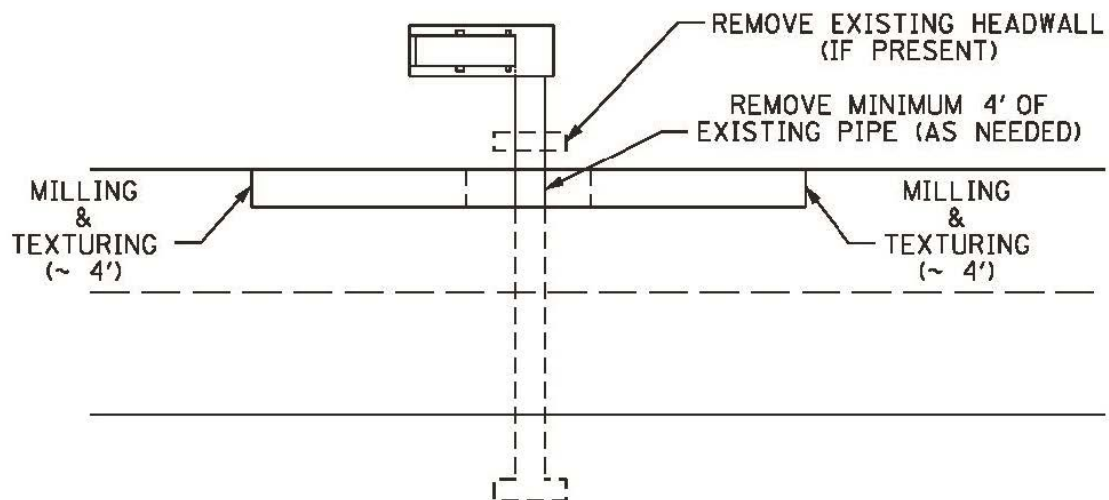
**SLOPED & MITERED  
CONCRETE HEADWALL  
(SHEET 2 OF 2)**

## PIPE PAVING DETAIL

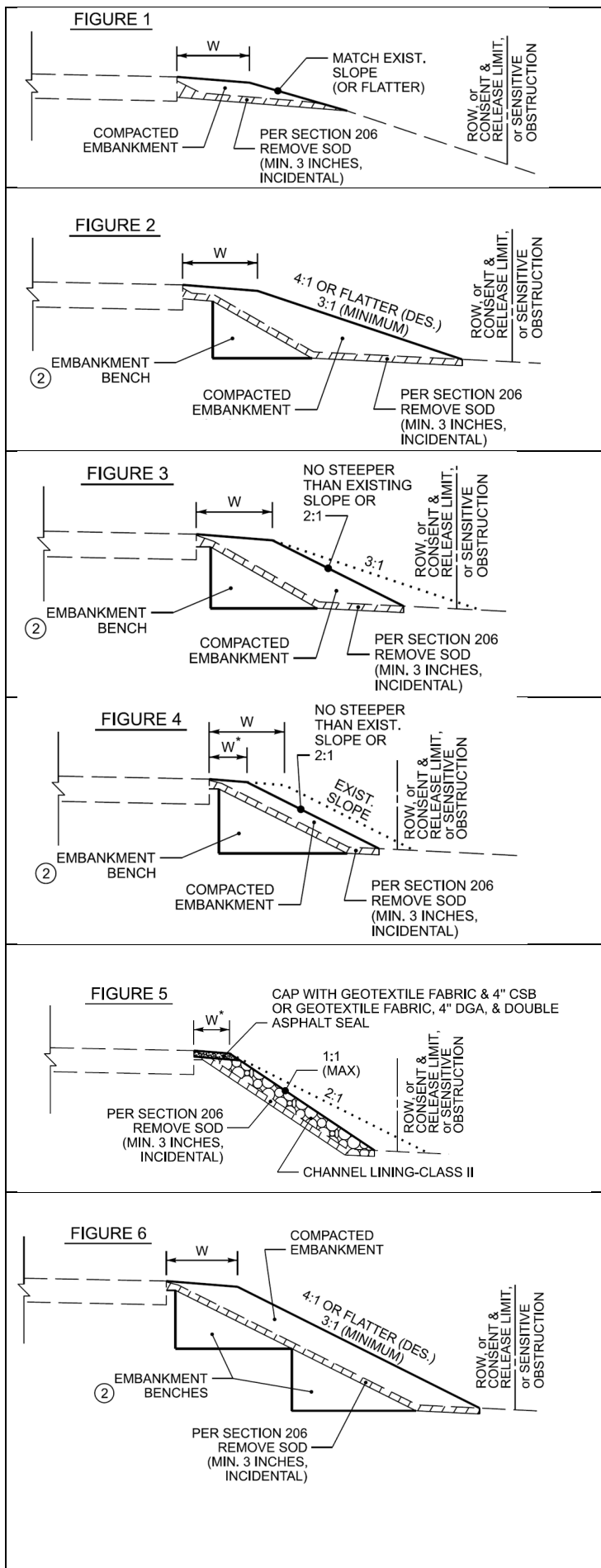
**FOR PIPE EXTENSIONS WHERE THE REMOVAL OF A PORTION OF THE EXISTING PIPE WILL REQUIRE PAVING OPERATIONS**



## CROSS SECTION VIEW



## PLAN VIEW



~NOTES~

Roadside Regrading Bid Items and Units to bid:

- Bid Item 2230 Embankment in Place – CUYD
- Bid Item 2200 Roadway Excavation – CUYD

1. The bid items listed above for Roadside Regrading shall consist of any and all necessary clearing and grubbing, grading, and/or shaping of the existing shoulder, ditch, and/or roadside to achieve the proposed shoulder, ditch, and/or roadside dimensions, as detailed on the Typical Sections. Final payment will be based on the proposed quantities of embankment and/or excavation, and will include all work and incidentals necessary to perform the Roadside Regrading according to these details, notes, and other information found elsewhere in the proposal or Standard Specifications. In the case of a discrepancy, refer to Section 105.05 of the Standard Specifications. Depending on the existing conditions encountered, Roadside Regrading may also include, but is not limited to:

- Providing additional earth material and grading, shaping, and compacting the earth material to achieve the dimensions shown on the Typical Sections. Compact material according to Section 206 of the Standard Specifications.  
Note: Additional earth material provided shall be suitable for vegetation growth.
- Excavating and removing excess material to achieve the dimensions shown on the Typical Sections.
- Embankment benching.

2. Embankment benching will be required when the existing groundline has an incline greater than 15% (Approx. 6:1). Excavation of embankment benches shall be incidental; however, embankment benching will be measured as Embankment in Place. The following are guidelines for embankment benching used in conjunction with the bid items for Roadside Regrading:

- The typical height (or rise) is 1' to 6'.
- The typical width (or run) will vary based on the height of the bench.
- Multiple small benches may be used, and may be more advantageous as this will require processing less earthwork and may help avoid any existing underground utilities.

3. As shown in **Figure 1**, in some situations, minor shouldering, with minimal additional earth material, may be all that is required to reshape the earth shoulder to the proposed width and bring it flush with the edge of pavement.

4. As shown in **Figure 2**, most situations will require additional earth material to achieve the proposed earth shoulder width. It is desired that the resulting fill slope be installed as flat as possible and shall remain within the Right-of-Way and/or any Consent & Release areas obtained by KYTC noted in the proposal, while also avoiding any sensitive obstructions.

5. As shown in **Figure 3**, if a 3:1 fill slope will result in the toe of slope extending beyond the Right-of-Way or outside of a Consent & Release area obtained by KYTC noted in the proposal, or will impact a sensitive obstruction, then the fill slope may be installed steeper than 3:1, but no steeper than the existing fill slope, or a 2:1, whichever is flatter.

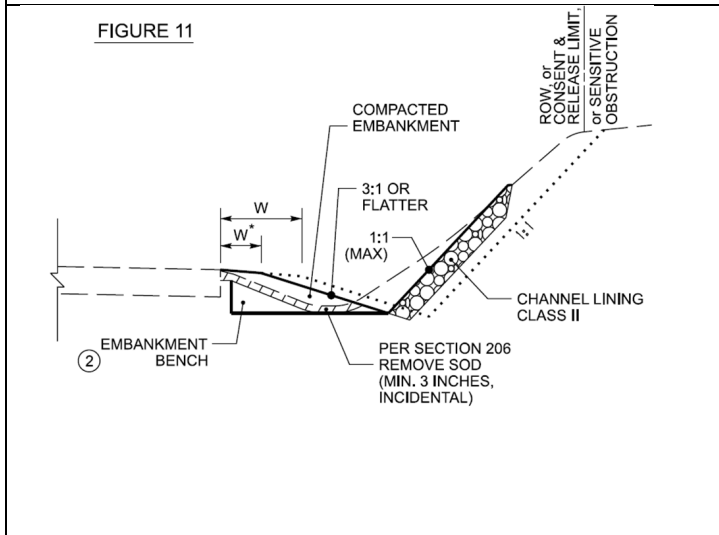
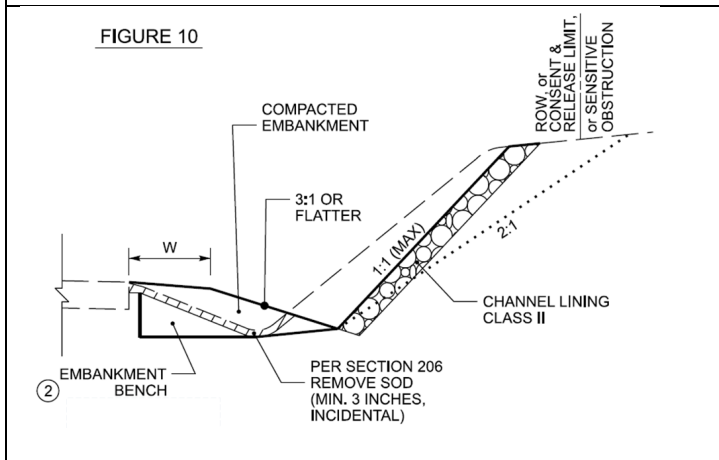
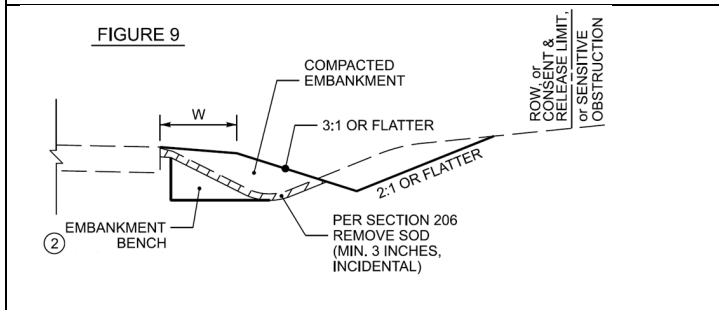
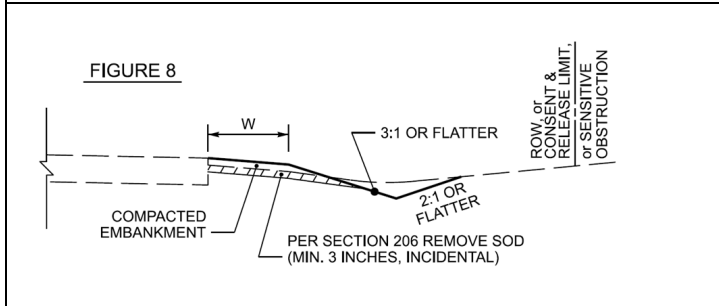
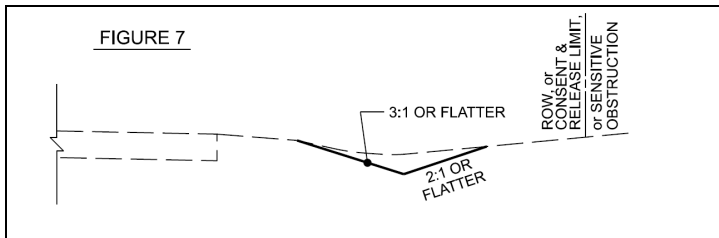
6. As shown in **Figure 4**, if matching the existing fill slope or installing a 2:1 fill slope (whichever is flatter) still results in the toe of slope extending beyond the Right-of-Way or outside of a Consent & Release area obtained by KYTC noted in the proposal, or still impacts a sensitive obstructions, then the proposed earth shoulder width may be reduced so that the resulting toe of slope will remain within the Right-of-Way or Consent & Release area, and/or not impact the sensitive obstruction.

7. As shown in **Figure 5**, if the existing fill slope is steeper than 2:1 and there is not enough space to install a 2:1 fill slope without extending beyond the Right-of-Way or outside of a Consent & Release area obtained by KYTC noted in the proposal, and/or impacts a sensitive obstructions, then Class II Channel Lining may be installed along the steep existing slope in order to establish a width of aggregate shoulder. These locations will be noted in the proposal. The Channel Lining is to be capped with Geotextile Fabric Class 1 and 4" of crushed stone base or 4" of DGA with Double Asphalt Seal Coat.

8. As shown in **Figure 6**, as the height of the fill increases, multiple embankment benches may be required. Refer to Note 2 for more information about embankment benching.

See Sheet 2 of 2 for Notes 9 through 13.

**Roadside Regrading  
and Embankment Details  
Sheet 1 of 2**

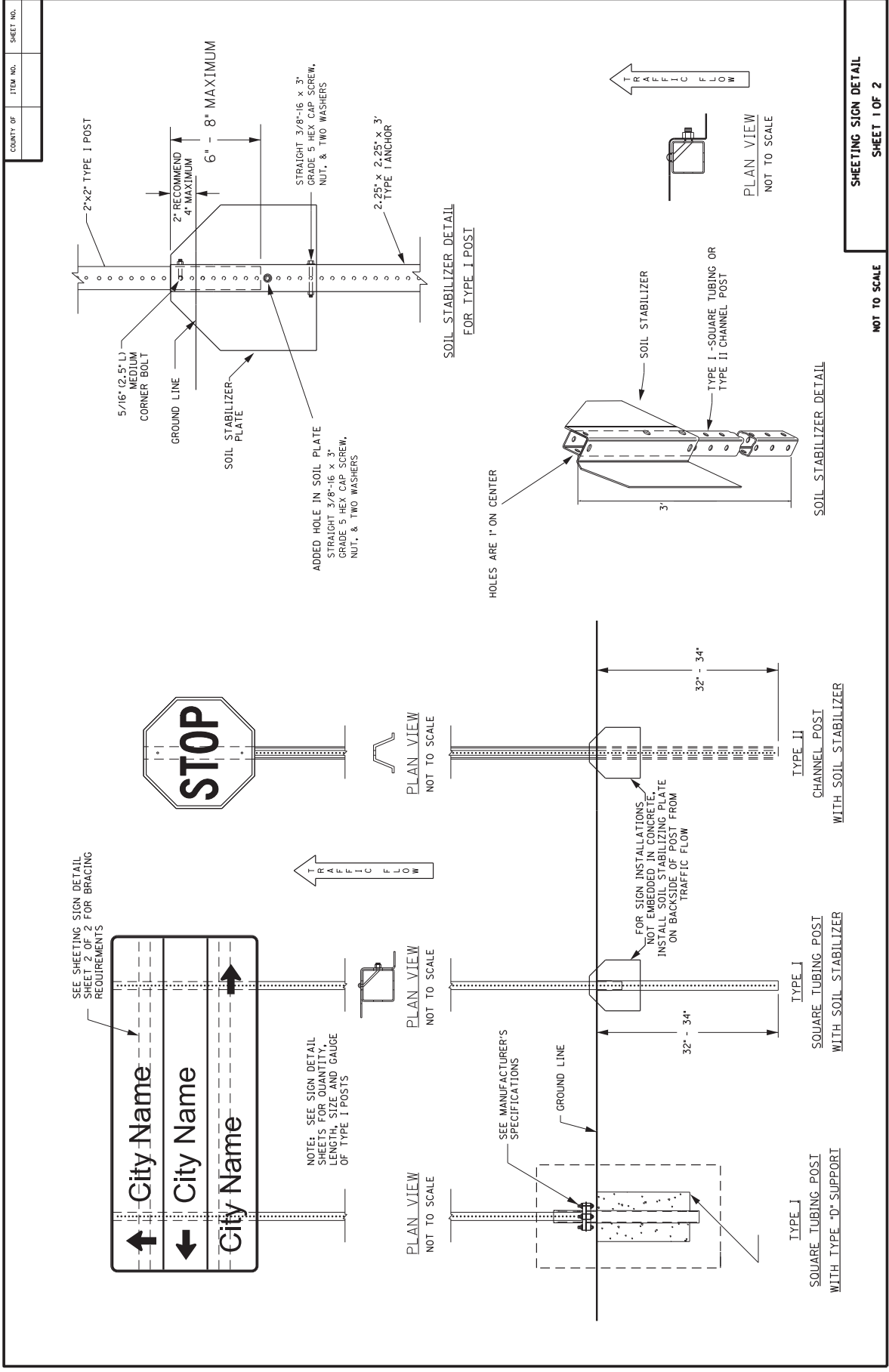


- ~NOTES~**
- Roadside Regrading Bid Items and Units to bid:
- Bid Item 2230 Embankment in Place – CUYD
  - Bid Item 2200 Roadway Excavation – CUYD
- The bid items listed above for Roadside Regrading shall consist of any and all necessary clearing and grubbing, grading, and/or shaping of the existing shoulder, ditch, and/or roadside to achieve the proposed shoulder, ditch, and/or roadside dimensions, as detailed on the Typical Sections. Final payment will be based on the proposed quantities of embankment and/or excavation, and will include all work and incidentals necessary to perform the Roadside Regrading according to these details, notes, and other information found elsewhere in the proposal or Standard Specifications. In the case of a discrepancy, refer to Section 105.05 of the Standard Specifications. Depending on the existing conditions encountered, Roadside Regrading may also include, but is not limited to:
    - Providing additional earth material and grading, shaping, and compacting the earth material to achieve the dimensions shown on the Typical Sections. Compact material according to Section 206 of the Standard Specifications.  
Note: Additional earth material provided shall be suitable for vegetation growth.
    - Excavating and removing excess material to achieve the dimensions shown on the Typical Sections.
    - Embankment benching.
  - Embankment benching will be required when the existing groundline has an incline greater than 15% (Approx. 6:1). Excavation of embankment benches shall be incidental; however, embankment benching will be measured as Embankment in Place. The following are guidelines for embankment benching used in conjunction with the bid items for Roadside Regrading:
    - The typical height (or rise) is 1' to 6'.
    - The typical width (or run) will vary based on the height of the bench.
    - Multiple small benches may be used, and may be more advantageous as this will require processing less earthwork and may help avoid any existing underground utilities.

- See Sheet 1 of 2 for Notes 3 through 8.
- As shown in **Figure 7**, in some situations, all that may be required is to clean out the existing ditch and reshape it to the proposed dimensions. The material excavated from the ditch may be re-used elsewhere on the project, provided the Engineer determines the material removed from the ditch is suitable for the intended re-use.
  - As shown in **Figure 8**, in some situations, the ditch and shoulder may only need minor regrading and/or reshaping. The material excavated from the ditch may be used to reshape the earth shoulder, provided the Engineer determines the material removed from the ditch is suitable for shouldering. If the material is not suitable, additional earth material may be required.
  - As shown in **Figure 9**, in most situations, regrading and reshaping the roadside to achieve the proposed shoulder, ditch, and/or roadside dimensions will result in moving the ditch further away from the roadway. It is desired that the ditch foreslopes be 3:1 or flatter and the ditch backslopes be 2:1 or flatter. It is also desired that the new ditch backslope remain within the Right-of-Way and/or any Consent & Release area obtained by KYTC noted in the proposal, while also avoiding any sensitive obstructions.
  - As shown in **Figure 10**, if installing a 2:1 ditch backslope will result in the top of cut extending beyond the Right-of-Way and/or any Consent & Release area obtained by KYTC noted in the proposal, and/or impacting a sensitive obstruction, then the ditch backslope may be installed steeper than 2:1, up to 1:1 maximum. In this situation, the ditch backslope shall have Class II Channel Lining installed for slope protection.
  - As shown in **Figure 11**, if using a 1:1 ditch backslope still results in the top of cut extending beyond the Right-of-Way and/or outside any Consent & Release area obtained by KYTC noted in the proposal, and/or still impacts a sensitive obstruction, then the proposed earth shoulder width may be reduced so that the steep ditch backslope can be installed within the Right-of-Way and/or avoid a sensitive obstruction.

**Roadside Regrading  
and Embankment Details  
Sheet 2 of 2**





NOT TO SCALE

SHEETING SIGN DETAIL  
SHEET 1 OF 2



COUNTY OF	ITEM NO.	SHEET NO.

**T-1**  
60" - 72"  
36"  
7"  
8" EM  
6"  
8" EM  
7"  
L 1/2"

**T-2**  
72"  
56"  
7"  
8" EM  
6"  
8" EM  
7"  
L 1/2"

**MI-5 (1 OR 2 DIGIT)**

**MI-5 (3 OR 4 DIGIT)**

	A	B	C	FONT	
				3 DIGIT	4 DIGIT
CONVENTIONAL	24"	24"	11"	12D	12B
EXPRESSWAY/ FREEWAY	36"	36"	17"	18D	18B

	A	B	C	D	E	FONT	
						3 DIGIT	4 DIGIT
CONVENTIONAL	30"	24"	6"	11"	11"	12D	12B
EXPRESSWAY/ FREEWAY	45"	36"	9"	16.5"	16.5"	18D	18B

**S-1**  
48"  
60"  
3" R  
L 2"  
1/4"

**TYPICAL SIGNS**

NOT TO SCALE

NOTE: FOR ROUTE MARKERS, IF NECESSARY, ADJUSTMENTS TO THE DIGIT LAYOUT AND/OR FONT TYPE MAY BE MADE TO ENSURE VISUAL ACUITY

NOTE: EXPRESSWAY/FREEWAY DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL OR FULL CONTROL OF ACCESS



***SPECIAL NOTE***

**For Tree Removal**

**Warren County  
KY-185 Reconstruction Project  
Item No. 3-110.30**

NO CLEARING OF TREES 5 INCHES OR GREATER (DIAMETER BREAST  
HEIGHT) FROM JUNE 1- JULY 31.

**If there are any questions regarding this note, please contact Danny Peake, Director,  
Division of Environmental Analysis, 200 Mero Street, Frankfort, KY 40601, Phone:  
(502) 564-7250.**

***SPECIAL NOTE***

**For Tree Removal**

**Warren County  
KY-185 Safety Improvements  
Item No. 3-9024**

NO CLEARING OF TREES 5 INCHES OR GREATER (DIAMETER BREAST  
HEIGHT) FROM MAY 15 – JULY 31.

**If there are any questions regarding this note, please contact Danny Peake, Director,  
Division of Environmental Analysis, 200 Mero Street, Frankfort, KY 40601, Phone:  
(502) 564-7250.**

## SPECIAL NOTE FOR INTELLIGENT COMPACTION OF ASPHALT MIXTURES

This Special Note will apply when indicated on the plans or in the proposal. Section references herein are to the Department's Standard Specifications for Road and Bridge Construction current edition.

**1.0 DESCRIPTION.** Provide and use Intelligent Compaction (IC) Rollers for compaction of all asphalt mixtures.

**2.0 MATERIALS AND EQUIPMENT.** In addition to the equipment specified in Subsection 403.02, a minimum of one (1) IC roller is to be used on the project at all times, two (2) IC rollers will be required when the paving train consists of three (3) or more rollers. The Contractor is to only use the IC roller(s) for compaction as the breakdown and/or intermediate roller(s). All IC rollers will meet the following minimum characteristics:

1. Are self propelled double-drum vibratory rollers equipped with accelerometers mounted in or about the drum to measure the interactions between the rollers and compacted materials in order to evaluate the applied compactive effort. The IC rollers must have the approval of the Engineer prior to use. Examples of rollers equipped with IC technology can be found at [www.IntelligentCompaction.com](http://www.IntelligentCompaction.com).
2. Are equipped with non-contact temperature sensors for measuring pavement surface temperatures.
3. The output from the roller is designated as the IC-MV which represents the stiffness of the materials based on the vibration of the roller drums and the resulting response from the underlying materials.
4. Are equipped with integrated on-board documentation systems that are capable of displaying real-time color-coded maps of IC measurement values including the stiffness response values, location of the roller, number of roller passes, machine settings, together with the material temperature, speed and the frequency and amplitude of roller drums. Ensure the display unit is capable of transferring the data by means of a cloud based system.
5. Are equipped with a mounted Global Positioning System GPS radio and receiver either a Real Time Kinematic (RTK-GPS) or Global Navigational Satellite System (GNSS) units that monitor the location and track the number of passes of the rollers. Accuracy of the positioning system is to be a minimum of 12 inches. Data is to be transferred to the Cabinet via a cloud based system within 30 minutes of collection.

**3.0 WORK PLAN.** Submit to the Engineer an IC Work Plan at the Preconstruction Conference and at least 2 weeks prior to beginning construction. Describe in the work plan the following:

1. Compaction equipment to be used including:
  - Vendor(s)
  - Roller model(s),
  - Roller dimensions and weights,
  - Description of IC measurement system,
  - GPS capabilities,
  - Documentation system,
  - Temperature measurement system, and
  - Software.
2. Roller data collection methods including sampling rates and intervals and data file types.
3. Transfer of data to the Engineer including method, timing, and personnel responsible. At the preconstruction meeting, provide the Cabinet with rights to allow for web access to the data file location. Access to the data is not to be hindered in any way. The Contractor will provide the Cabinet with any vendor specific software, user id, passwords, etc. needed to access the data through this service, cost of this access is incidental to the thermal profile bid item. The Cabinet is to have access to all data as it is being collected. If a third party is used for collecting and distributing the data the Cabinet is to have the same access rights and time as the Contractor.
4. Training plan and schedule for roller operators, project foreman, project surveyors, and Cabinet personnel; including both classroom and field training. Training should be conducted at least 1 week before beginning IC construction. The training is to be performed by a qualified representative(s) from the IC Roller manufacture(s) to be used on the project. This training shall include how to access and use the data from the cloud data source.

**4.0 CONSTRUCTION.** Do not begin work until the Engineer has approved the IC submittals and the IC equipment.

Follow requirements established in Section 400 for production and placement, materials, equipment, acceptance plans and adjustments except as noted or modified in this Specification. Provide the Engineer at least one day's notice prior to beginning construction or prior to resuming production if operations have been temporarily suspended. Ensure paving equipment complies with all requirements specified in Section 400. The IC roller temperatures will be evaluated by the Department with the data from a Paver Mounted Infrared Temperature Gauge.

A. Pre-Construction Test Section(s) Requirements.

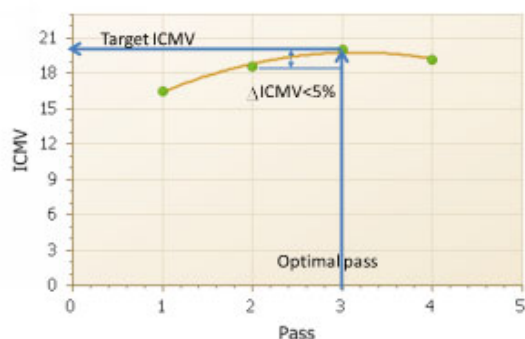
Three to five days prior to the start of production, ensure the proper setup of the GPS, IC roller(s) and the rover(s) by conducting joint GPS correlation and verification testing between the Contractor, GPS representative and IC roller manufacturer using the same datum.

1. Ensure GPS correlation and verification testing includes the following minimum processes:
  - a. Establish the GPS system to be used either one with a base station or one with mobile receivers only. Ensure all components in the system are set to the correct coordinate system; then,
  - b. Verify that the roller and rover are working properly and that there is a connection with the base station; then,
  - c. Record the coordinates of the two edges where the front drum of the roller is in contact with the ground from the on-board, color-coded display; then,
  - d. Mark the locations of the roller drum edges and move the roller, and place the mobile receiver at each mark and record the readings; then,
2. Compare coordinates between the roller and rover receivers. If the coordinates are within 12.0 in. of each other, the comparison is acceptable. If the coordinates are not within 12.0 in., diagnose and perform necessary corrections and repeat the above steps until verification is acceptable.
3. Do not begin work until acceptable GPS correlation and verification has been obtained.
4. The Contractor and the Department should conduct random GPS verification testing during production to ensure data locations are accurate. The recommended rate is once per day with a requirement of at least once per week.
5. All acceptance testing shall be as outlined in Standard Specifications section 400.

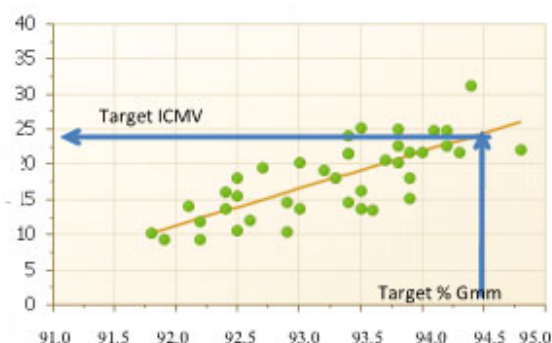
B. Construction Test Section(s) Requirements.

Construct test section(s) at location(s) agreed on by the Contractor and the Engineer within the project limits. The test section is required to determine a compaction curve of the asphalt mixtures in relationship to number of roller passes and to the stiffness of mixture while meeting the Department in-place compaction requirements. All rollers and the respective number of passes for each is to be determined via control strip each time a material change, equipment change or when the Engineer deems necessary.

Conduct test section(s) on every lift and every asphalt mixture. Ensure test section quantities of 500 to 1,000 tons of mainline mixtures. Operate IC rollers in the low to medium amplitude range and at the same settings (speed, frequency) throughout the section while minimizing overlapping of the roller, **the settings are to be used throughout the project with no changes**. After each roller pass, the qualified technician from the contractor observed by the Department will use a nondestructive nuclear gauge that has been calibrated to the mixture to estimate the density of the asphalt at 10 locations uniformly spaced throughout the test section within the width of a single roller pass. The density readings and the number of roller passes needed to achieve the specified compaction will be recorded. The estimated target density will be the peak of the average of the nondestructive readings within the desired compaction temperature range for the mixture. The IC roller data in conjunction with the Veda software will create an IC compaction curve for the mixture. The target IC-MV is the point when the increase in the IC-MV of the material between passes is less than 5 percent on the compaction curve. The IC compaction curve is defined as the relationship between the IC-MV and the roller passes. A compaction curve example is as follows:



Subsequent to the determination of the target IC-MV, compact an adjoining > 250 < 500 tons section using same roller settings and the number of estimated roller passes and allow the Department to verify the compaction with the same calibrated nondestructive nuclear gauge following the final roller pass. **The Department will obtain cores at 10 locations (No cores for calibration are to be taken in the surface layer, use non-destructive density results only!!)** uniformly spaced throughout the test section within the width of the single roller. Obtain GPS measurement of the core locations with a GPS rover. Use the Veda software to perform least square linear regression between the core data and IC-MV in order to correlate the production IC-MV values to the Department specified in-place air voids. A sample linear regression curve example is as follows.



C. Construction Requirements.

Use the IC roller on all lifts and types of asphalt within the limits of the project.

Ensure the optimal number of roller passes determined from the test sections has been applied to a minimum coverage of 80% of the individual IC Construction area. Ensure a minimum of 75% of the individual IC Construction area meets the target IC-MV values determined from the test sections.

Do not continue paving operations if IC Construction areas not meeting the IC criteria are produced until they have been investigated by the Department. Obtain the Engineer’s approval to resume paving operations. Non-IC rollers are allowed to be used as the third roller on the project; one of the breakdown or the finish rollers is to be equipped with IC technology.

IC Construction areas are defined as subsections of the project being worked continuously by the Contractor. The magnitude of the IC Construction areas may vary with production but must be at least 750 tons per mixture for evaluation. Partial IC Construction areas of < 750 tons will be included in the previous area evaluation. IC Construction areas may extend over multiple days depending on the operations.

The IC Construction Operations Criteria does not affect the Department’s acceptance processes for the materials or construction operations

**5.0 MEASUREMENT.** The Department will measure the total tons of asphalt mixtures compacted using the IC roller(s). Compaction is to be performed by a minimum of one (1) IC roller for a two (2) roller operation and a minimum of two (2) IC rollers when three (3) or more rollers are used for compaction. Material compacted by rollers not equipped with properly functioning IC equipment will not be accepted for payment of the bid item asphalt mixtures IC rolled. Use of

non-IC rollers can be accepted on small areas due to equipment malfunctions at the written approval of the Engineer. Paving operations should be suspended for equipment malfunctions that will extend over three days of operation.

Data is to be transferred to the cabinet in usable form no later than 30 minutes after collection. Data is to be transferred via a cloud based system.

**6.0 PAYMENT.** The Department will make payment for the completed and accepted quantities under the following:

1. Payment is full compensation for all work associated with providing IC equipped rollers, laptop computer, transmission of electronic data files, two copies of IC roller manufacturer software, and training.
2. Delays due to GPS satellite reception of signals to operate the IC equipment or IC roller breakdowns will not be considered justification for contract modifications or contract extensions.
3. Delays in data transfer will result in a reduction payment. Delays over 1 hour after collection are 75% pay, over 90 minutes are 50% pay, over 2 hours are 25% pay.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24781EC	Intelligent Compaction for Asphalt	Ton

March 14, 2019

## SPECIAL NOTE FOR INTELLIGENT COMPACTION OF AGGREGATE BASES AND SOILS

This Special Note will apply when indicated on the plans or in the proposal. Section references herein are to the Department's current edition of the Standard Specifications for Road and Bridge Construction.

**1.0 DESCRIPTION.** Provide and use Intelligent Compaction (IC) Rollers for compaction of Aggregate bases, stabilized subgrades, soil, and soil rock mixtures.

**2.0 MATERIALS AND EQUIPMENT.** The Contractor shall supply sufficient numbers of rollers and other associated equipment necessary to complete the compaction requirements for the specific materials. The Contractor will determine the number of IC rollers to use depending on the scope of the project. The IC roller(s) may be utilized during production with other standard compaction equipment and shall be used for the evaluation of the compaction operations. Provide at least one (1) roller to be used on the project with the following minimum characteristics:

1. Are self propelled vibratory rollers equipped with machine drive power and/or accelerometers mounted in or about the drum to measure the interactions between the rollers and compacted materials in order to evaluate the applied Compactive effort. [www.IntelligentCompaction.com](http://www.IntelligentCompaction.com) contains a list of acceptable rollers equipped with IC technology.
2. IC rollers can be either smooth drums or pad footed drums based on the type needed for the aggregate base or soil types to compact.
3. The output from the roller is designated as the IC-MV which represents the stiffness of the materials based on the vibration of the roller drums and the resulting response from the underlying materials, or the machine drive power value.
4. Are equipped with integrated on-board documentation systems that are capable of displaying real-time color-coded maps of IC measurement values including the stiffness response values, location of the roller, number of roller passes, machine settings, together with the speed, the frequency and amplitude of roller drums. Ensure the display unit is capable of transferring the data by means of a cloud based near real time system with a USB port backup data transfer.
5. Are equipped with a mounted Global Positioning System GPS radio and receiver either a Real Time Kinematic (RTK-GPS) or Global Navigational Satellite System (GNSS) units that monitor the location and track the number of passes of the rollers. Accuracy of the positioning system must be within 12 inches.

**3.0 WORK PLAN.** Submit to the Engineer an IC Work Plan at the Preconstruction Conference and/or at least 2 weeks prior to beginning the corresponding construction activities. Describe in the work plan the following:

1. Compaction equipment to be used including:
  - Vendor(s)
  - Roller model(s),
  - Roller dimensions and weights,
  - Description of IC measurement system,
  - GPS capabilities,
  - Documentation system,
  - Software.
2. Roller data collection methods including sampling rates and intervals and data file types.
3. Transfer of data to the Engineer including method, timing, and personnel responsible. **Data transfer shall be provided by a real time cloud data collecting and distribution system (ex. Visionlink). The Contractor will provide the Cabinet with any vendor specific software, user id, passwords, etc. needed to access the data through this service, cost of this access is incidental to the IC bid item(s).**
4. Training plan and schedule for roller operators, project foreman, project surveyors, and Cabinet personnel; including both classroom and field training from the equipment manufacturer. Training should be conducted at least 1 week before beginning IC construction. The training is to be performed by a qualified representative(s) from the IC Roller manufacture(s) to be used on the project.

**4.0 CONSTRUCTION.** Prior to the start of production, ensure the proper setup of the GPS, IC roller(s) and the rover(s) by conducting joint GPS correlation and verification testing between the Contractor, GPS representative

and IC roller manufacturer using the same datum. Use the project datum system (Northing, Easting and Elevation) when applicable.

1. Ensure GPS correlation and verification testing includes the following minimum processes:
  - a. Establish the GPS system to be used either one with a base station or one with mobile receivers only. Ensure all components in the system are set to the correct coordinate system; then,
  - b. Verify that the roller and rover are working properly and that there is a connection with the base station; then,
  - c. Record the coordinates of the two edges where the front drum of the roller is in contact with the ground from the on-board, color-coded display; then,
  - d. Mark the locations of the roller drum edges and move the roller, and place the mobile receiver at each mark and record the readings; then; then,
2. Compare coordinates between the roller and rover receivers. If the coordinates are within 12.0 in. of each other, the comparison is acceptable. If the coordinates are not within 12.0 in., diagnose and perform necessary corrections and repeat the above steps until verification is acceptable.
3. Do not begin work until acceptable GPS correlation and verification has been obtained. The Contractor and the Department should conduct random GPS verification testing during production to ensure data locations are accurate. The recommended rate is once per day with a requirement of at least once per week.
4. A test strip is to be used for all materials (DGA, CSB, subgrade and soil) as outlined and sized in section 302.03.04 to determine optimum rolling pattern, for all materials, and the target density for aggregate bases. A new test strip will be required anytime the material changes, equipment changes, or proper compaction has not been obtained for two (2) consecutive test locations.
5. All acceptance testing shall be as outlined in Standard Specifications sections 200 and 300.
6. Any areas a minimum of 50 square feet in area not achieving the 80% of the stiffness value determined by the latest control strip shall be tested by other means approved by the Engineer. If the material doesn't pass the testing it shall be repaired based on current standards to the satisfaction of the Engineer.

**5.0 MEASUREMENT.** The Department will measure the total tons of aggregate base (DGA and/or CSB), total square yards of stabilized subgrade, and total cubic yards of soil compacted using the IC roller(s). The use of non-IC rollers is allowed on this project, but an IC roller must be used as well.

**6.0 PAYMENT.** The Department will make payment for the completed and accepted quantities under the following:

1. All areas with a minimum of 80% pass coverage and 75% required stiffness readings.
2. Payment is full compensation for all work associated with providing IC equipped rollers, transmission of electronic data files, two copies of IC roller manufacturer software, and training.
3. Delays due to GPS satellite reception of signals to operate the IC equipment or IC roller breakdowns will not be considered justification for contract modifications or contract extensions.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24779EC	Intelligent Compaction for Soil	Cubic Yard
24780EC	Intelligent Compaction for Aggregate	Ton
24990EC	Intelligent Comp Subgrade Stabilization	Square Yard

March 14, 2019



### SPECIAL NOTE FOR NON-TRACKING TACK COAT

1. DESCRIPTION AND USEAGE. This specification covers the requirements and practices for applying a non-tracking tack asphalt coating. Place this material on the existing pavement course, prior to placement of a new asphalt pavement layer. Use when expedited paving is necessary or when asphalt tracking would negatively impact the surrounding area. This material is not suitable for other uses. Ensure material can “break” within 15 minutes under conditions listed in 3.2.
2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Non-Tracking Tack. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide a tack conforming to the following material requirements:

Property	Specification	Test Procedure
Viscosity, SFS, 77 ° F	20 – 100	AASHTO T 72
Sieve, %	0.3 max.	AASHTO T 59
Asphalt Residue <sup>1</sup> , %	50 min.	AASHTO T 59
Oil Distillate, %	1.0 max.	AASHTO T 59
Residue Penetration, 77 ° F	0 - 30	AASHTO T 49
Original Dynamic Shear (G*/sin δ), 82 ° C	1.0 min.	AASHTO T 315
Softening Point, ° F	149 min.	AASHTO T 53
Solubility, %	97.5 min.	AASHTO T 44

<sup>1</sup> Bring sample to 212 °F over a 10-15 minute period. Maintain 212 °F for 15-20 minutes or until 30-40 mL of water has distilled. Continue distillation as specified in T59.

- 2.2. Equipment. Provide a distributor truck capable of heating, circulating, and spraying the tack between 170 °F and 180 °F. Do not exceed 180 °F. Circulate the material while heating. Provide the correct nozzles that is recommend by the producer to ensure proper coverage of tack is obtained. Ensure the bar can be raised to between 14” and 18” from the roadway.
- 2.3. Personnel. Ensure the tack supplier has provided training to the contractor on the installation procedures for this product. Make a technical representative from the supplier available at the request of the Engineer.

3. CONSTRUCTION.

3.1 Surface Preparation. Prior to the application of the non-tracking tack, ensure the pavement surface is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the surface by scraping, sweeping, and the use of compressed air. Ensure this preparation process occurs shortly before application to prevent the return of debris on to the pavement. If rain is expected within one hour after application, do not apply material. Apply material only when the surface is dry, and no precipitation is expected.

- 3.2 Non-tracking Tack Application. Placement of non-tracking tack is not permitted from October 1<sup>st</sup> to May 15<sup>th</sup>. When applying material, ensure the roadway temperature is a minimum of 40°F and rising. Prior to application, demonstrate competence in applying the tack according to this note to the satisfaction of the Engineer. Heat the tack in the distributor to between 170 – 180 °F. After the initial heating, between 170 – 180 °F, the material may be sprayed between 165 °F and 180 °F. Do not apply outside this temperature range. Apply material at a minimum rate of 0.70 pounds (0.08 gallons) per square yard. Ensure full coverage of the material on the pavement surface. Full coverage of this material is critical. Increase material application rate if needed to achieve full coverage. Schedule the work so that, at the end of the day's production, all non-tracking tack is covered with the asphalt mixture. If for some reason the non-tracking tack cannot be covered by an asphalt mixture, ensure the non-tracking tack material is clean and reapply the non-tracking tack prior to placing the asphalt mixture. Do not heat material more than twice in one day.
- 3.3 Non-tracking Tack Certification. Furnish the tack certification to the Engineer stating the material conforms to all requirements herein prior to use.
- 3.4 Sampling and Testing. The Department will require a sample of non-tracking tack be taken from the distributor at a rate of one sample per 15,000 tons of mix. Take two 1 gallon samples of the heated material and forward the sample to the Division of Materials for testing within 7 days. Ensure the product temperature is between 170 and 180 °F at the time of sampling.
4. MEASUREMENT. The Department will measure the quantity of non-tracking tack in tons. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of non-tracking tack, the cleaning of the pavement surface, or furnishing and placing the non-tracking tack. The Department will consider all such items incidental to the non-tracking tack.
5. PAYMENT. The Department will pay for the non-tracking tack at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. Non-tracking tack will not be permitted for use from October 1<sup>st</sup> to May 15<sup>th</sup>. During this timeframe, the department will allow the use of an approved asphalt emulsion in lieu of a non-tracking tack product but will not adjust the unit bid price of the material. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

Non-Tracking Tack Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Viscosity, SFS, 77 ° F	20 – 100	19 - 102	17 - 18	15 - 16	14	≤13
			103 - 105	106 - 107	108 - 109	≥ 110
Sieve, %	0.30 max.	≤ 0.40	0.41 - 0.50	0.51 - 0.60	0.61 - 0.70	≥ 0.71
Asphalt Residue, %	50 min.	≥49.0	48.5 – 48.9	48.0 – 48.4	47.5-47.9	≤ 47.4
Oil Distillate, %	1.0 max.	≤1.0	1.1-1.5	1.6 - 1.7	1.8-1.9	>2.0
Residue Penetration, 77 ° F.	30 max.	≤ 31	32 - 33	34 - 35	36 - 37	≥ 38
Original Dynamic Shear (G*/sin δ), 82 ° C	1.0 min.	≥0.95	0.92 – 0.94	0.90 – 0.91	0.85 - 0.89	≤ 0.84
Softening Point, ° F	149 min.	≥145	142 - 144	140 - 141	138 - 139	≤ 137
Solubility, %	97.5 min.	≥ 97.0	96.8 – 96.9	96.6 – 96.7	96.4 – 96.5	≤ 96.3

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24970EC	Asphalt Material for Tack Non-Tracking	Ton

Revised: May 23, 2022

## SPECIAL NOTE FOR EXPERIMENTAL KYCT AND HAMBURG TESTING

### 1.0 General

**1.1 Description.** The KYCT (Kentucky Method for Cracking Test) and the Hamburg test results will help determine if the mixture is susceptible to cracking and rutting. During the experimental phase, data will be gathered and analyzed by the Department to determine the durability of the bituminous mixes. Additionally, the data will help the Department to create future performance-based specifications which will include the KYCT and Hamburg test methods.

### 2.0 Equipment

**2.1 KYCT Testing Equipment.** The Department will require a Marshall Test Press with digital recordation capabilities. Other CT testing equipment may be used for testing with prior approval by the Department.

**2.2 Water Baths.** One or more water baths will be required that can maintain a temperature of 77° +/- 1.8° F with a digital thermometer showing the water bath temperature. Also, one water bath shall have the ability to suspend gyratory specimen fully submerged in water in accordance with AASHTO T-166, current edition.

**2.3 Hamburg Wheel Track Testing.** The department encourages the use of the PTI APA/Hamburg Jr. test equipment to perform the loaded wheel testing. The Department will allow different equipment for the Hamburg testing, but the testing device must be approved by the Department prior to testing.

**2.4 Gyratory Molds.** Gyratory molds will be required to assist in the production of gyratory specimens in accordance with AASHTO T-312, current edition.

**2.5 Ovens.** Adequate (minimum of two ovens) will be required to accommodate the additional molds and asphalt mixture necessary to perform the acceptance testing as outlined in Section 402 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

**2.6 Department Equipment.** The Department will provide gyratory molds, PINE 850 Test Press with digital recordation, and CT testing equipment to assist during this experimental phase so data can be gathered. Hamburg test specimens will be submitted to the Division of Materials for testing on the PTI APA/Hamburg Jr if the asphalt contractor or district materials office does not have an approved Hamburg testing device.

### 3.0 Testing Requirements

**3.1 Acceptance Testing.** Perform all acceptance testing and aggregate gradation as according with Section 402 and Section 403 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

**3.2 KYCT Testing.** Perform crack resistance analysis (KYCT) in accordance with the current Kentucky Method for KYCT Index Testing during the mix design phase and during the plant production of all surface mixtures. For mix design approvals, submit KYCT results on the Department MixPack. For Class 4 mixtures, submit ingredient materials to the Division of Materials for verification.

**3.2.1 KYCT Frequency.** Obtain an adequate sample of hot mix asphalt to ensure the acceptance testing, gradation, and KYCT gyratory samples can be fabricated and is representative of the bituminous mixture. Acceptance specimens shall be fabricated first, then immediately after, fabricate the KYCT samples with the gyratory compactor in accordance with Section 2.4 of this Special Note. Analysis of the KYCT specimens and gradation will be required one per subplot produced from the same asphalt material and at the same time as the acceptance specimen is sampled and tested.

**3.2.2 Number of Specimens and Conditioning.** Fabricate specimens in accordance with the Kentucky Method for KYCT Index Testing. Contrary to the method, for field specimens, fabricate a minimum of 3 and up to 6 test specimens. The specimens shall be compacted at the temperature in accordance with KM 64-411. KYCT mix design specimens shall be short-term conditioned uncovered for four hours at compaction temperature in accordance with KM 64-411. Contrary to the Kentucky Method, plant produced bituminous material shall be short-term conditioned immediately after sampling for two hours uncovered in the oven at compaction temperature in accordance with KM 64-411. Additionally, fabricated specimens shall be allowed to cool in air (fan is permissible) for 30 minutes +/- 5 minutes and conditioned in a 77 °F water bath for 30 minutes +/- 5 minutes. To ensure confidence and reliability of the test results provided by KYCT testing and Hamburg testing, reheating of the asphalt mixture is prohibited.

**3.2.3 Record Times.** For each subplot, record the time required between drying aggregates in the plant to KYCT specimen fabrication. The production time may vary due to the time that the bituminous material is held in the silo. Record the preconditioning time when the time exceeds the one-hour specimen cool down time as required in accordance with The Kentucky Method for KYCT Index Testing. The preconditioning time may exceed an hour if the technician is unable to complete the test on the same day or within the specified times as outlined in The Kentucky Method for KYCT Index Testing. The production time and the preconditioning time shall be recorded on the AMAW.

**3.2.4 File Name.** As according to section 7.12 of The Kentucky Method for KYCT Index Testing, save the filename with the following format: "CID\_Approved Mix Number\_Lot Number\_Sublot Number\_Date"

**3.3 Hamburg Testing.** Perform the rut resistance analysis (Hamburg) in accordance with AASTHO T-324, not to exceed 20,000 passes for all bituminous mixtures during the mix design phase and production. For mix design approvals, submit Hamburg results on the Department MixPack. For Class 4 mixtures, submit ingredient materials to the Division of Materials for informational verification.

**3.3.1 Hamburg Testing Frequency.** Perform testing and analysis per lot of material. The plant produced bituminous material sampled for the Hamburg test does not have to be obtained at the same time as the acceptance and KYCT sample. If the Hamburg test sample is not obtained at the same time as the KYCT sample, determine the Maximum Specific Gravity of the KYCT sample in accordance with AASHTO T-209 coinciding with the Hamburg specimens.

**3.3.2 Record Times.** Record the production time as according to section 3.2.3 in this special note. Also record the time that the specimens were fabricated and the time the Hamburg testing was started. All times shall be recorded on the AMAW.

**3.3.3 File Name.** Save the Excel spreadsheet with the following file name; “Hamburg\_CID\_Approved Mix Number\_Lot Number\_Sublot Number\_Date” and upload the file into the AMAW.

#### **4.0 Data**

Submit the AMAW and all test data that was obtained for acceptance, gradation, KYCT, and Hamburg testing within five working days once all testing has been completed for a lot to Central Materials Lab and the District Materials Engineer. Also, any data and or comments that the asphalt contractor or district personnel deem informational during this experimental phase, shall also be submitted to the Central Materials Lab and the District Materials Engineer. Any questions or comments regarding any item in this Special Note can be directed to the Central Office, Division of Materials, Asphalt Branch.

#### **5.0 Payment**

Any additional labor and testing equipment that is required to fabricate and test the KYCT and Hamburg specimens shall be considered incidental to the asphalt surface line item. The Department will perform the testing for the KYCT and Hamburg specimens if a producer does not possess the proper equipment.

June 15<sup>th</sup>, 2022

### **SPECIAL NOTE FOR DOUBLE ASPHALT SEAL COAT**

Use RS-2 or RS-2C asphalt material that is compatible with the seal aggregate. Apply the first course of asphalt seal coat at the rate of 3.2 lbs/sy of asphalt and 30 lbs/sy of size #78 seal coat aggregate. Apply the second course at 2.8 lbs/sy of asphalt and 20 lbs/sy of size #9M seal coat aggregate. The Engineer may adjust the rate of application as conditions warrant. Use caution in applying liquid asphalt material to avoid over spray getting on curbs, gutter, barrier walls, bridges, guardrail, and other roadway appurtenances.

The Department will not measure any surface preparation required prior to applying the asphalt seal coat, but shall be incidental to “Asphalt Material for Asphalt Seal Coat”.

1-3215 Double Asphalt Seal Coat  
01/02/2012



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"/> <b>Original</b>	<input type="checkbox"/> <b>Re-Certification</b>
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ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)
3-110.30	Warren	12F0 FD52 114 7904702R	STP 5074 (008)

**PROJECT DESCRIPTION**

Improve KY 185 from 0.24 miles South of Pruitt Rd. to 0.16 miles South of KY 1320

**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.

**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.

**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

**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	25	EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
<b>Number of Parcels That Have Been Acquired</b>			
Signed Deed	21		
Condemnation	4		
Signed ROE			

**Notes/ Comments (Text is limited. Use additional sheet if necessary.)**

Item No. 3-110.30 is a breakout of 25 parcels from the Parent Project, Item No. 3-110.00. Those 25 parcels are 0003, 0009, 0011, 0016, 0018, 0019, 0020, 0021, 0024, 0025, 0027, 0028, 0029, 0030, 0031, 0032, 0033, 0078, 0080, 0081, 0082, 0083, 0084, 0085, 0086. 14 separate parcels were acquired under Item No. 3-110.00 and was certified on 5/17/24.

LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	Mike Russell
Signature		Signature	
Date		Date	5/20/2024
Right of Way Director		FHWA	
Printed Name		Printed Name	
Signature		Signature	
Date		Date	





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"/>	<b>Original</b>	<input type="checkbox"/>	<b>Re-Certification</b>	<b>RIGHT OF WAY CERTIFICATION</b>			
<b>ITEM #</b>		<b>COUNTY</b>		<b>PROJECT # (STATE)</b>		<b>PROJECT # (FEDERAL)</b>	
3-9024.00		Warren		12F0 FD52 114 1188101D		HSIP 5074 (010)	
<b>PROJECT DESCRIPTION</b>							
Perform low-cost safety improvements on KY 185 from MP 8.250 to MP 10.050							
<input checked="" type="checkbox"/> <b>No Additional Right of Way Required</b>							
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"/> <b>Condition # 1 (Additional Right of Way Required and Cleared)</b>							
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"/> <b>Condition # 2 (Additional Right of Way Required with Exception)</b>							
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"/> <b>Condition # 3 (Additional Right of Way Required with Exception)</b>							
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		0	EXCEPTION (S) Parcel #		ANTICIPATED DATE OF POSSESSION WITH EXPLANATION		
Number of Parcels That Have Been Acquired							
Signed Deed							
Condemnation							
Signed ROE							
<b>Notes/ Comments (Use Additional Sheet if necessary)</b>							
<b>LPA RW Project Manager</b>				<b>Right of Way Supervisor</b>			
Printed Name				Printed Name		Mike Russell	
Signature				Signature			
Date				Date		2/5/2024	
<b>Right of Way Director</b>				<b>FHWA</b>			
Printed Name				Printed Name			
Signature				Signature		No Signature Required as per FHWA-KYTC Current Stewardship Agreement	
Date		Digitally signed by Kelly Divine Date: 2024.02.06 07:09:56 -06'00'		Date			

## UTILITIES AND RAIL CERTIFICATION NOTE

**WARREN COUNTY  
00STP 5074 008  
FD52 114 79047 01U  
MILE POINT: 6.540 TO 8.350  
IMPROVE KY 185 FROM 0.24 MILES SOUTH OF PRUITT ROAD TO 0.16 MILES SOUTH OF KY 1320.  
(2018BOP) (2022CCR)  
ITEM NUMBER: 03-110.30**

### PROJECT NOTES ON UTILITIES

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 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.

## UTILITIES AND RAIL CERTIFICATION NOTE

**WARREN COUNTY  
00STP 5074 008  
FD52 114 79047 01U  
MILE POINT: 6.540 TO 8.350  
IMPROVE KY 185 FROM 0.24 MILES SOUTH OF PRUITT ROAD TO 0.16 MILES SOUTH OF KY 1320.  
(2018BOP) (2022CCR)  
ITEM NUMBER: 03-110.30**

### **PROJECT NOTES ON UTILITIES continued**

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**

**Kentucky Natural Gas and Oil, LLC - Natural Gas**

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

## UTILITIES AND RAIL CERTIFICATION NOTE

WARREN COUNTY  
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(2018BOP) (2022CCR)  
ITEM NUMBER: 03-110.30

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

AT&T-KY - Telephone

Level 3 / CenturyLink Communication, LLC - Communication

Warren Rural Electric Cooperative Corporation - Electric

Warren County Water District - Water

**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**

Charter Communications Holdings, LLC dba Spectrum-CATV should be completed July 31, 2024

Pollitt Energy, Inc. - Natural Gas should be completed by December 31, 2024

Existing Facilities within impacted area:

- Existing 2" PE Gas Main running parallel to existing 185 roadway on South Connector alignment appx. STA 23+00 RT to STA 19+00 RT within existing Right of Way.
- Existing 2" PE Gas Main crossing proposed KY 185 Mainline alignment along the entirety of the right side of the existing entrance crossing mainline appx. STA 1576+50 and is located entirely within proposed Right of Way and proposed Temporary Easement from existing KY 185 to Entrance STA 10+60.
- Existing 4" PE Gas Main running parallel to existing KY185 roadway from North Connector alignment appx STA 34+00 RT to KY 185 Mainline alignment appx. STA 1594+20 RT within existing Right of Way and along Mainline appx STA 1594+20 RT to appx STA 1601+00 within proposed Right of Way.
- Existing Gas line service crossing (assumed 2") Mainline appx. STA 1598+40.

## UTILITIES AND RAIL CERTIFICATION NOTE

**WARREN COUNTY**  
**00STP 5074 008**  
**FD52 114 79047 01U**  
**MILE POINT: 6.540 TO 8.350**  
**IMPROVE KY 185 FROM 0.24 MILES SOUTH OF PRUITT ROAD TO 0.16 MILES SOUTH OF KY 1320.**  
**(2018BOP) (2022CCR)**  
**ITEM NUMBER: 03-110.30**

**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**

**Proposed Facilities within the impacted area:**

- **Proposed 2" PE Gas Main running parallel to existing 185 roadway on South Connector alignment appx. STA 23+00~15' RT to appx STA 23+30~45'RT to appx. STA 19+00~55'RT outside existing Right of Way but within Permanent Drainage and Temporary Easements.**
- **Proposed 4" PE Gas Main crossing proposed 185 alignment appx STA 1579+20.**
- **Proposed 2" PE Gas Main running parallel to and appx. 10' outside proposed Right of Way along Mainline STA 1579+15 RT to STA 1578+00 RT and along Proposed entrance at 1577+50 on LT side 15' outside Right of Way appx. STA 5+90 to appx STA 10+00 then at a skew to tie-in appx. STA 10+55 RT side beyond end of construction.**
- **Proposed 4" PE Gas Main running parallel to and appx. 10' to 15' outside proposed Right of Way along Mainline STA 1579+15 RT to STA 1601+25 RT being within Temporary Easements at Stations 1585+00 to 1587+00, 1587+35 to 1588+50, and 1598+55 to 1599+15.**
- **Proposed 4" PE Gas Main crossing proposed 185 alignment appx. STA 1598+50.**
- **Proposed 1" gas service parallel to North Connector at varied offsets RT side within Proposed Temporary Easement but outside Proposed Right of Way STA 34+00 to STA 36+10.**

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

Not Applicable

**RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED**

- No Rail Involvement**  
  **Rail Involved**  
  **Rail Adjacent**

## UTILITIES AND RAIL CERTIFICATION NOTE

**WARREN COUNTY**  
**00STP 5074 008**  
**FD52 114 79047 01U**  
**MILE POINT: 6.540 TO 8.350**  
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**(2018BOP) (2022CCR)**  
**ITEM NUMBER: 03-110.30**

### AREA FACILITY OWNER CONTACT LIST

Facility Owner	Address	Contact	Phone	Email
AT&T-KY - Telephone	1150 State St. Bowling Green KY 42101	Travis Parsley	2708463196	<a href="mailto:tp2087@att.com">tp2087@att.com</a>
Charter Communications Holdings, LLC dba Spectrum - CATV	1900 North Fares Avenue, Evansville IN 47711	Justin Sturgeon	8123058783	<a href="mailto:Justin.sturgeon@charter.com">Justin.sturgeon@charter.com</a>
Level 3 / CenturyLink Communication, LLC - Communication	700West Mineral Ave. Littelton CO 80120	Patrick Barkes	8123417335	<a href="mailto:Patrick.barkes@Lumen.Com">Patrick.barkes@Lumen.Com</a>
Pollitt Energy - Natural Gas	13517 Saddlecreek Louisville KY 40245	Basil Clark Pollitt	8137896257	<a href="mailto:thegasgroupinc@yahoo.com">thegasgroupinc@yahoo.com</a>
Warren County Water District - Water	P.O. Box 10180 Bowling Green KY 42102	Clint Harbison	2708420052	<a href="mailto:clinth@warrenwater.com">clinth@warrenwater.com</a>
Warren Rural Electric Cooperative Corp. - Electric	P.O. Box 1118 Bowling Green KY 42102	Jonathan Lindsey	2708426541	<a href="mailto:jonathanl@wrecc.com">jonathanl@wrecc.com</a>

## UTILITIES AND RAIL CERTIFICATION NOTE

**WARREN COUNTY  
OHSIP5074010  
FD52 114 1188101D  
MILE POINT: 8.250 TO 10.050  
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 185 FROM MP 8.250 TO MP 10.050 IN  
WARREN COUNTY, KY. (2018BOP)  
ITEM NUMBER: 03-9024.00**

### PROJECT NOTES ON UTILITIES

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 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.

## UTILITIES AND RAIL CERTIFICATION NOTE

**WARREN COUNTY  
OHSIP5074010  
FD52 114 1188101D  
MILE POINT: 8.250 TO 10.050  
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 185 FROM MP 8.250 TO MP 10.050 IN  
WARREN COUNTY, KY. (2018BOP)  
ITEM NUMBER: 03-9024.00**

### PROJECT NOTES ON UTILITIES

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**

Warren Rural Electric Cooperative Corporation - Electric

AT&T-KY - Telephone

Kentucky Natural Gas and Oil, LLC - Natural Gas

Warren County Water District - Water

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



## UTILITIES AND RAIL CERTIFICATION NOTE

**WARREN COUNTY  
OHSIP5074010  
FD52 114 1188101D  
MILE POINT: 8.250 TO 10.050  
PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 185 FROM MP 8.250 TO MP 10.050 IN  
WARREN COUNTY, KY. (2018BOP)  
ITEM NUMBER: 03-9024.00**

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

Level 3 / CenturyLink Communication, LLC - Communication

**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

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

Not Applicable

**RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED**

No Rail Involvement    Rail Involved    Rail Adjacent

## UTILITIES AND RAIL CERTIFICATION NOTE

**WARREN COUNTY**  
**OHSIP5074010**  
**FD52 114 1188101D**  
**MILE POINT: 8.250 TO 10.050**  
**PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 185 FROM MP 8.250 TO MP 10.050 IN**  
**WARREN COUNTY, KY. (2018BOP)**  
**ITEM NUMBER: 03-9024.00**

### AREA FACILITY OWNER CONTACT LIST

Facility Owner	Address	Contact	Phone	Email
AT&T-KY - Telephone	1150 State St. Bowling Green KY 42101	Travis Parsley	2708463196	<a href="mailto:tp2087@att.com">tp2087@att.com</a>
Kentucky Natural Gas and Oil, LLC - Natural Gas	425 Power Street Bowling Green KY 42101	Jason Sharp	2708993435	<a href="mailto:jason@jsgateway.com">jason@jsgateway.com</a>
Level 3 / CenturyLink Communication, LLC - Communication	700West Mineral Ave. Littelton CO 80120	Patrick Barkes	8123417335	<a href="mailto:Patrick.barkes@Lumen.Com">Patrick.barkes@Lumen.Com</a>
Pollitt Energy - Natural Gas	13517 Saddlecreek Louisville KY 40245	Basil Clark Pollitt	8137896257	<a href="mailto:thegasgroupinc@yahoo.com">thegasgroupinc@yahoo.com</a>
Warren County Water District - Water	P.O. Box 10180 Bowling Green KY 42102	Clint Harbison	2708420052	<a href="mailto:clinth@warrenwater.com">clinth@warrenwater.com</a>
Warren Rural Electric Cooperative Corp. - Electric	P.O. Box 1118 Bowling Green KY 42102	Jonathan Lindsey	2708426541	<a href="mailto:jonathanl@wrecc.com">jonathanl@wrecc.com</a>

## UTILITIES AND RAIL CERTIFICATION NOTE

**WARREN COUNTY  
00STP 5074 008  
FD52 114 79047 01U  
MILE POINT: 6.540 TO 8.350  
IMPROVE KY 185 FROM 0.24 MILES SOUTH OF PRUITT ROAD TO 0.16 MILES SOUTH OF KY 1320.  
(2018BOP) (2022CCR)  
ITEM NUMBER: 03-110.30**

### PROJECT NOTES ON UTILITIES

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 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.

## UTILITIES AND RAIL CERTIFICATION NOTE

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### PROJECT NOTES ON UTILITIES continued

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**

**Kentucky Natural Gas and Oil, LLC - Natural Gas**

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

## UTILITIES AND RAIL CERTIFICATION NOTE

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

AT&T-KY - Telephone

Level 3 / CenturyLink Communication, LLC - Communication

Warren Rural Electric Cooperative Corporation - Electric

Warren County Water District - Water

**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**

Charter Communications Holdings, LLC dba Spectrum-CATV should be completed July 31, 2024

Pollitt Energy, Inc. - Natural Gas should be completed by December 31, 2024

Existing Facilities within impacted area:

- Existing 2" PE Gas Main running parallel to existing 185 roadway on South Connector alignment appx. STA 23+00 RT to STA 19+00 RT within existing Right of Way.
- Existing 2" PE Gas Main crossing proposed KY 185 Mainline alignment along the entirety of the right side of the existing entrance crossing mainline appx. STA 1576+50 and is located entirely within proposed Right of Way and proposed Temporary Easement from existing KY 185 to Entrance STA 10+60.
- Existing 4" PE Gas Main running parallel to existing KY185 roadway from North Connector alignment appx STA 34+00 RT to KY 185 Mainline alignment appx. STA 1594+20 RT within existing Right of Way and along Mainline appx STA 1594+20 RT to appx STA 1601+00 within proposed Right of Way.
- Existing Gas line service crossing (assumed 2") Mainline appx. STA 1598+40.

## UTILITIES AND RAIL CERTIFICATION NOTE

**WARREN COUNTY**  
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**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**

**Proposed Facilities within the impacted area:**

- **Proposed 2" PE Gas Main running parallel to existing 185 roadway on South Connector alignment appx. STA 23+00~15' RT to appx STA 23+30~45'RT to appx. STA 19+00~55'RT outside existing Right of Way but within Permanent Drainage and Temporary Easements.**
- **Proposed 4" PE Gas Main crossing proposed 185 alignment appx STA 1579+20.**
- **Proposed 2" PE Gas Main running parallel to and appx. 10' outside proposed Right of Way along Mainline STA 1579+15 RT to STA 1578+00 RT and along Proposed entrance at 1577+50 on LT side 15' outside Right of Way appx. STA 5+90 to appx STA 10+00 then at a skew to tie-in appx. STA 10+55 RT side beyond end of construction.**
- **Proposed 4" PE Gas Main running parallel to and appx. 10' to 15' outside proposed Right of Way along Mainline STA 1579+15 RT to STA 1601+25 RT being within Temporary Easements at Stations 1585+00 to 1587+00, 1587+35 to 1588+50, and 1598+55 to 1599+15.**
- **Proposed 4" PE Gas Main crossing proposed 185 alignment appx. STA 1598+50.**
- **Proposed 1" gas service parallel to North Connector at varied offsets RT side within Proposed Temporary Easement but outside Proposed Right of Way STA 34+00 to STA 36+10.**

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

Not Applicable

**RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED**

- No Rail Involvement**  
  **Rail Involved**  
  **Rail Adjacent**

## UTILITIES AND RAIL CERTIFICATION NOTE

**WARREN COUNTY**  
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**ITEM NUMBER: 03-110.30**

### AREA FACILITY OWNER CONTACT LIST

Facility Owner	Address	Contact	Phone	Email
AT&T-KY - Telephone	1150 State St. Bowling Green KY 42101	Travis Parsley	2708463196	<a href="mailto:tp2087@att.com">tp2087@att.com</a>
Charter Communications Holdings, LLC dba Spectrum - CATV	1900 North Fares Avenue, Evansville IN 47711	Justin Sturgeon	8123058783	<a href="mailto:Justin.sturgeon@charter.com">Justin.sturgeon@charter.com</a>
Level 3 / CenturyLink Communication, LLC - Communication	700West Mineral Ave. Littelton CO 80120	Patrick Barkes	8123417335	<a href="mailto:Patrick.barkes@Lumen.Com">Patrick.barkes@Lumen.Com</a>
Pollitt Energy - Natural Gas	13517 Saddlecreek Louisville KY 40245	Basil Clark Pollitt	8137896257	<a href="mailto:thegasgroupinc@yahoo.com">thegasgroupinc@yahoo.com</a>
Warren County Water District - Water	P.O. Box 10180 Bowling Green KY 42102	Clint Harbison	2708420052	<a href="mailto:clinth@warrenwater.com">clinth@warrenwater.com</a>
Warren Rural Electric Cooperative Corp. - Electric	P.O. Box 1118 Bowling Green KY 42102	Jonathan Lindsey	2708426541	<a href="mailto:jonathanl@wrecc.com">jonathanl@wrecc.com</a>

# *N O T I C E*

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**DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS  
NATIONWIDE #14 PERMIT AUTHORIZATION  
KENTUCKY DIVISION OF WATER 401 WQC**

**09-06-2022**

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**PROJECT:** Warren County, Item No. 3-9024  
Low-cost highway safety improvement project on KY 185  
Mile point 8.25 to mile point 10.05 .

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The Section 404 & 401 activities for this project have been previously permitted under the authority of the Department of the Army Nationwide Permit No. 14 “Linear Transportation Projects” & Division of Water General Water Quality Certification. In order for these authorizations to be valid, the attached conditions must be followed. The contractor shall post a copy of this Nationwide Permit & General WQC in a conspicuous location at the project site for the duration of construction and comply with the general conditions as required.

- |                |   |
|----------------|---|
| Station 442+24 | Extend a 4’X4’ reinforced concrete box culvert. The channel change will impact an <b>intermittent</b> stream a U.T. of Indian Creek. The project will have impacts below the normal high water mark. The estimated area of impact is <b>18 linear feet</b> and <b>0.002 acres</b> . |
| Station 449+37 | Extend a 24 inch culvert. The channel change will impact an <b>ephemeral</b> stream a U.T. of Indian Creek. The project will have impacts below the normal high water mark. The estimated area of impact is <b>24 linear feet</b> and <b>0.001 acres</b> .                          |
| Station 452+17 | Extend a 24 inch culvert. The channel change will impact an <b>ephemeral</b> stream a U.T. of Indian Creek. The project will have impacts below the normal high water mark. The estimated area of impact is <b>24 linear feet</b> and <b>0.001 acres</b> .                          |
| Station 487+24 | Extend a 3’X3’ reinforced concrete box culvert. The channel change will impact an <b>intermittent</b> stream a U.T. of Indian Creek. The project will have impacts below the normal high water mark. The estimated area of impact is <b>20 linear feet</b> and <b>0.002 acres</b> . |



- Station 519+90                      Extend a 4'X3' reinforced concrete box culvert. The channel change will impact an **intermittent** stream a U.T. of Ivy Creek/underground drainage. The project will have impacts below the normal high water mark. The estimated area of impact is **18 linear feet** and **0.002 acres**.
- Station 527+26                      Extend a 3'X3' reinforced concrete box culvert. The channel change will impact an **intermittent** stream a U.T. of Ivy Creek/underground drainage. The project will have impacts below the normal high water mark. The estimated area of impact is **14 linear feet** and **0.001 acres**.

This project involves work near and/or within Jurisdictional Waters of the United States as defined by the United States Army Corps of Engineers and therefore requires a Nationwide 14 General 404 Permit. The Division of Water certified this General Permit with several conditions (See attached). One that should be brought to your attention is regarding the use of heavy equipment in the stream channel. If there is need to cross the stream channel with heavy equipment or conduct work from within the stream channel a working platform or temporary crossing is authorized. This should be constructed with clean rock and sufficient pipe to allow stream flow to continue unimpeded (see attached typical drawing).

In order for this authorization to be valid, the attached conditions must be followed. The contractor shall post a copy of this Nationwide Approval in a conspicuous location at the project site for the duration of construction and comply with the general conditions as required.

To more readily expedite construction, the contractor may elect to alter the design or perform the work in a manner different from what was originally proposed and specified. Prior to commencing such alternative work, the contractor shall obtain **written** permission from the Division of Construction and the Division of Environmental Analysis. If such changes necessitate further permitting then the contractor will be responsible for applying to the Army Corps of Engineers and the Kentucky Division of Water (KDOW). A copy of any request to the Corps of Engineers or the KDOW to alter this proposal and subsequent responses shall be forwarded to the Division of Environmental Analysis, DA Permit Coordinator, for office records and for informational purposes.



ANDY BESHEAR  
GOVERNOR

REBECCA W. GOODMAN  
SECRETARY

**ENERGY AND ENVIRONMENT CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION**

ANTHONY R. HATTON  
COMMISSIONER

300 SOWER BOULEVARD  
FRANKFORT, KENTUCKY 40601

## **General Certification--Nationwide Permit # 14 Linear Transportation Projects**

This General Certification is issued **December 18, 2020**, in conformity with the requirements of Section 401 of the Clean Water Act of 1977, as amended (33 U.S.C. §1341), as well as Kentucky Statute KRS 224.16-050.

For this General Certification and all General Certifications of Nationwide Permits (NWP), the term 'surface water' is defined pursuant to 401 KAR Chapter 10, Section 1(72): Surface Waters means those waters having well-defined banks and beds, either constantly or intermittently flowing; lakes and impounded waters; marshes and wetlands; and any subterranean waters flowing in well-defined channels and having a demonstrable hydrologic connection with the surface. Lagoons used for waste treatment and effluent ditches that are situated on property owned, leased, or under valid easement by a permitted discharger are not considered to be surface waters of the Commonwealth.

As required by 40 CFR Part 121 – State Certification of Activities Requiring a Federal License or Permit, all conditions include a statement explaining why the condition is necessary to assure that any discharge authorized under the general permit will comply with water quality requirements and a citation to federal, state, or tribal law that authorizes the condition. The statements and citations are included with each condition. The statements are written entirely at the end of the certification under the section *Statements of Necessity*.

Agricultural operations, as defined by KRS 224.71-100(1) conducting activities pursuant to KRS 224.71-100 (3), (4), (5), (6), or 10 are deemed to have certification if they are implementing an Agriculture Water Quality Plan pursuant to KRS 224.71-145.

For all other operations, the Commonwealth of Kentucky hereby certifies under Section 401 of the Clean Water Act (CWA) that it has reasonable assurances that applicable water quality standards under Kentucky Administrative Regulations Title 401, Chapter 10, established pursuant to Sections 301, 302, 303, 306 and 307 of the CWA, will not be violated for the activity covered under NATIONWIDE PERMIT 14, namely Linear Transportation Projects, provided that the conditions in this certification are met. Activities that do not meet the conditions of this General Certification require an Individual Section 401 Water Quality Certification.

**General Certification--Nationwide Permit # 14**  
**Linear Transportation Projects**  
**Page 2**

1. Activities occurring within surface waters assessed by the Kentucky Division of Water as designated Outstanding State Resource Waters, National Resource Waters, Cold Water Aquatic Habitat, Exceptional Waters, or identified as candidate Outstanding State Resource Waters or candidate Exceptional Waters are not authorized under this General Certification and require an Individual Certification. [Statement A and citations KRS 224.70-110, 401 KAR 10:030, Section 1(1), Section 1(2), & Section 1(3); and 401 KAR 10:031, Section 4(2) & Section 8]
2. Activities impacting surface waters assessed by the Kentucky Division of Water as impaired for warm water or cold water aquatic habitat where the parameter or source is related to habitat\* are not authorized under this General Certification and require an Individual Certification. [Statement B and citations KRS 224.70-110 and 401 KAR 10:031, Section 2 & Section 4]  
  
\*These include waters impaired by the parameter 'habitat assessment', 'combined biota/habitat bioassessment' or any parameter from the parameter group 'habitat alterations, and/or waters where the parameter identified as a cause of impairment has a source from the source group 'habitat impacts'.
3. Activities impacting surface waters assessed by the Kentucky Division of Water as full support for warm water or cold water aquatic habitat are not authorized under this General Certification and require an Individual Certification. [Statements A and B and citations KRS 224.70-110 and 401 KAR 10:031, Section 2 & Section 4]
4. The activity will not occur within surface waters identified as perpetually-protected mitigation sites (e.g., deed restriction or conservation easement). [Statement C and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3); and 40 C.F.R. 230.97]
5. Activities with cumulative temporary and permanent impacts greater than 1/2 acre of wetland or 300 linear feet of surface waters are not authorized under this General Certification and require an Individual Certification. This General Certification shall not apply to projects where multiple Nationwide Permits are issued for individual crossings which are part of a single, larger transportation projects. [Statement A and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
6. For complete linear transportation projects, all impacts shall not exceed a cumulative length of 500 linear feet within each Hydrologic Unit Code (HUC) 14. [401 KAR 10:030 and 401 KAR 10:031]
7. Stream realignment greater than 100 feet is not authorized under this General Certification and require and Individual Certification. [Statement A and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]

**General Certification--Nationwide Permit # 14**  
**Linear Transportation Projects**  
**Page 3**

8. Surface water impacts covered under this General Certification and undertaken by those persons defined as an agricultural operation under the Agricultural Water Quality Act must be completed in compliance with the Kentucky Agricultural Water Quality Plan (KAWQP). [Statements A and F and citations KRS 224.71-145(1), 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
9. Any crossings must be constructed in a manner that does not impede natural water flow. [Statement A and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
10. The use of creek rock for bank stabilization; grouted rip-rap; unformed, poured grout; unformed, poured concrete; poured asphalt; or asphalt pieces is not authorized under this General Certification and requires an Individual Certification. Poured concrete or grout will be authorized under this General Certification when contained by tightly sealed forms or cells. Equipment shall not discharge waste washwater into surface waters at any time without adequate wastewater treatments. [Statement A and citations 401 KAR 10:030, Section 1(3)(b) & 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
11. New stormwater detention/ retention basins constructed in surface waters or modifications to stormwater detention/ retention basins resulting in the reduction in reach or that cause impairment of flow of surface waters are not authorized under this General Certification and require an Individual Certification. [Statement A and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
12. Erosion and sedimentation pollution control plans and Best Management Practices (BMPs) must be designed, installed, and maintained in effective operating condition at all times during construction activities so that violations of state water quality standards do not occur. [Statements A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
13. Sediment and erosion control measures, such as check-dams constructed of any material, silt fencing, hay bales, etc., shall not be placed within surface waters, either temporarily or permanently, without prior approval by the Kentucky Division of Water's Water Quality Certification Section. If placement of sediment and erosion control measures in surface waters is unavoidable, design and placement of temporary erosion control measures shall not be conducted in such a manner that may result in instability of streams that are adjacent to, upstream, or downstream of the structures. All sediment and erosion control devices shall be removed and the natural grade restored within the completion timeline of the activities. [Statements A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]

**General Certification--Nationwide Permit # 14**  
**Linear Transportation Projects**  
**Page 4**

14. Measures shall be taken to prevent or control spills of fuels, lubricants, or other toxic materials used in construction from entering surface waters. [Statements A and D and citations. [KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
15. Removal of riparian vegetation shall be limited to that necessary for equipment access. [Statements A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
16. To the maximum extent practicable, all in-stream work under this certification shall be performed under low-flow conditions [Statements A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
17. Heavy equipment (e.g., bulldozers, backhoes, and draglines), if required for this project, should not be used or operated within the stream channel. In those instances in which such in-stream work is unavoidable, then it shall be performed in such a manner and duration as to minimize turbidity and disturbance to substrates and bank or riparian vegetation. [Statements A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
18. Any fill shall be of such composition that it will not adversely affect the biological, chemical, or physical properties of the receiving waters and/or cause violations of water quality standards. If rip-rap is utilized, it should be of such weight and size that bank stress or slump conditions will not be created because of its placement. [Statements A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
19. If domestic water supply intakes are located downstream that may be affected by increased turbidity and suspended solids, the permittee shall notify the operator when such work will be done prior to construction. [Statement E and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
20. Should evidence of stream pollution or jurisdictional wetland impairment and/or violations of water quality standards occur as a result of this activity (either from a spill or other forms of water pollution), the Kentucky Division of Water shall be notified immediately by calling (800) 928-2380. [Statement A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
21. The Kentucky Division of Water requires submission of a formal application for any federal applicant that is not required to submit a Preconstruction Notification that would typically be required of any non-federal applicant. [Statements A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]

**General Certification--Nationwide Permit # 14  
Linear Transportation Projects  
Page 5**

22. The Kentucky Division of Water may require submission of a formal application for an Individual Certification for any project that has been determined to likely have a significant adverse effect upon water quality or degrade surface waters so that existing uses of the water body or downstream waters are precluded. [Statement A and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]
  
23. If the final issued General Permit for Nationwide Permit 14 Linear Transportation Projects changes significantly, the Division of Water may opt to deny certification for this permit. [Statements A and D and citations KRS 224.70-110, 401 KAR 10:030, Section 1(3)(b) & Section 1(4)(b); and 401 KAR 10:031, Section 2 & Section 4]

Statements of Necessity:

- A. This condition is necessary to protect waters categorized under the anti-degradation policy to protect the designated and existing uses and to maintain the associated water quality criteria necessary to protect these water resources.
  
- B. This condition is necessary to protect existing uses and the level of water quality necessary to protect those existing uses shall be assured in impaired water.
  
- C. This condition is necessary for long-term protection of compensatory mitigation sites.
  
- D. This condition is necessary to provide for the prevention, abatement, and control of all water pollution and to conserve water resources for legitimate uses, safeguard from pollution the uncontaminated waters, prevent the creation of any new pollution, and abate any existing pollution.
  
- E. This condition is necessary to protect domestic water supply use.
  
- F. This condition is necessary to evaluate, develop, and improve best-management practices in conservation plans, compliance plans, and forest stewardship management plans; establish statewide and regional agriculture water quality plans; and otherwise promote soil and water conservation activities that protect surface waters from the adverse impacts of agriculture operations within the Commonwealth.

**Violation of Kentucky state water quality standards may result in civil penalties and remediation actions.**

For assistance contact the Kentucky Division of Water, Water Quality Certification Section by email ([401WQC@ky.gov](mailto:401WQC@ky.gov)) or by phone (502)-564-3410.



# 2021 Nationwide Permit Summary

**US Army Corps  
of Engineers**  
Louisville District ®

**Issued: February 25, 2022**  
**Expires: March 14, 2026**

## **No. 14. Linear Transportation Projects**

(NWP Final Rule, 86 FR 73522)

Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, driveways, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize

non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

**Notification:** The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) The loss of waters of the United States exceeds 1/10 acre; or (2) there is a discharge of dredged or fill material in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404).

**Note 1:** For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d).

**Note 2:** Some discharges of dredged or fill material for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4).

**Note 3:** For NWP 14 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The

district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

### **Nationwide Permit General Conditions**

**Note:** To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. **Navigation.** (a) No activity may cause more than a minimal adverse effect on navigation.  
  
(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.  
  
(c) The permittee understands and agrees that, if future operations by the United

States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other

fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Structures and Fills. Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct



management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: <http://www.rivers.gov/>.

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding "activities that are reasonably certain to occur" and "consequences caused by the proposed action."

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate

documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-Federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7

consultation or conference has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district

engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at <http://www.fws.gov/> or <http://www.fws.gov/ipac> and <http://www.nmfs.noaa.gov/pr/species/esa/> respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (a) No activity is authorized under any NWP which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The

district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential

to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must

include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by an NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands

adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more

than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district

engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWP, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure

timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in

the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. (a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed discharge must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed discharge in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed discharge is not

authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge, the permittee must submit a copy of the certification to the district engineer. The discharge is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied by the issuance of a water quality certification or a waiver.

(c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

(a) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States cannot exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

(b) If one or more of the NWPs used to authorize the single and complete project has specified acreage limits, the acreage loss of waters of the United States authorized by those NWPs cannot exceed their respective specified acreage limits. For example, if a commercial development is constructed under NWP 39, and the single and complete project includes the filling of an upland ditch authorized by NWP 46, the maximum acreage loss of waters of the United States for the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States due to the NWP 39 and 46 activities cannot exceed 1 acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

\_\_\_\_\_  
(Transferee)

\_\_\_\_\_  
(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States. If an

NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification. (a) *Timing.* Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

- (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or
- (2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the

permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification:* The PCN must be in writing and include the following information:

- (1) Name, address and telephone numbers of the prospective permittee;
- (2) Location of the proposed activity;
- (3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;
- (4) (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any

other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial and intermittent streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many

wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) *Form of Pre-Construction Notification:* The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) *Agency Coordination:* (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

#### **D. District Engineer's Decision**

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the single and complete crossings of waters of the United States that require PCNs to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings of waters of the United States authorized by an NWP. If an applicant requests a waiver of an applicable limit, as provided for in NWPs 13, 36, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects.

2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by an NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the

NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

3. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters. The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not

practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure that the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

4. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) that the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no



work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

#### **E. Further Information**

1. District engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

#### **F. Nationwide Permit Definitions**

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term “discharge” means any discharge of dredged or fill material into waters of the United States.

Ecological reference: A model used to plan and design an aquatic habitat and riparian area restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on the structure, functions, and dynamics of an aquatic habitat type or a riparian area type that currently exists in the region where the proposed NWP 27 activity is located. Alternatively, an ecological reference may be based on a conceptual model for the aquatic habitat type or riparian area type to be restored, enhanced, or established as a result of the proposed NWP 27 activity. An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water’s surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of

water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. The loss of stream bed includes the acres of stream bed that are permanently adversely affected by filling or excavation because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters or wetlands for determining whether a project may qualify for an NWP; it is not

a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

Navigable waters: Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Perennial stream: A perennial stream has surface water flowing continuously year-round during a typical year.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For

the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands next to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term “single and complete project” is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of

the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of “independent utility”). Single and complete non-linear projects may not be “piecemealed” to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal

interruption of normal stream processes. A channelized jurisdictional stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line.

Tribal lands: Any lands title to which is either: 1) held in trust by the United States for the benefit of any Indian tribe or individual; or 2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

Tribal rights: Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a “water of the United States.” If a wetland is adjacent to a waterbody determined to be a water of the United

States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)).

## **2021 KENTUCKY REGIONAL GENERAL CONDITIONS**

These regional conditions are in addition to, but do not supersede, the requirements in the Federal Register (See volume 86, date January 13, 2021, pp 2867-2874 for the text of Section C, General Conditions).

Notifications for all Nationwide Permits (NWP) shall be in accordance with General Condition No. 32.

1. For activities that would result in a loss of Outstanding State or National Resource Waters (OSNRWs), Exceptional Waters (EWs), Coldwater Aquatic Habitat Waters (CAHs) and waters with Designated Critical Habitat (DCH) under the Endangered Species Act for the NWP listed below, a Pre-Construction Notification (PCN) will be required to the Corps. The Corps will coordinate with the appropriate resource agencies (see attached list) on these NWP for impacts to these waters.

NWP 3 (Maintenance)

NWP 4 (Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities)

NWP 5 (Scientific Measurement Devices)

NWP 6 (Survey Activities)

NWP 12 (Oil or Natural Gas Pipeline Activities)

NWP 13 (Bank Stabilization)

NWP 14 (Linear Transportation Projects)

NWP 15 (U.S. Coast Guard Approved Bridges)

NWP 16 (Return Water from Upland Contained Disposal Areas)

NWP 17 (Hydropower Projects)

NWP 18 (Minor Discharges)

NWP 19 (Minor Dredging)

NWP 20 (Response Operations for Oil or Hazardous Substances)

NWP 22 (Removal of Vessels)

NWP 23 (Approved Categorical Exclusions)

NWP 25 (Structural Discharges)

NWP 30 (Moist Soil Management for Wildlife)

NWP 32 (Completed Enforcement Actions)

NWP 33 (Temporary Construction, Access, and Dewatering)

NWP 36 (Boat Ramps)

NWP 41 (Reshaping Existing Drainage Ditches)

NWP 51 (Land-Based Renewable Energy Generation Facilities)

NWP 57 (Electric Utility Line and Telecommunications Activities)

NWP 58 (Utility Line Activities for Water and Other Substances)

2. In addition to the notification and agency coordination requirements in the NWP, for impacts greater than 0.25 acres in all "waters of the U.S." for the NWP listed below, a PCN will be required to the Corps. The Corps will coordinate with the appropriate resource agencies (see attached list) on these NWP:

NWP 3 (Maintenance)  
NWP 14 (Linear Transportation Projects)

3. Nationwide Permit No. 14 – Linear Transportation Projects.

- (a) New road alignments or realignments are limited to a permanent loss of 500 linear feet of intermittent or perennial stream length or the stream bed acreages listed in the table below at each crossing. Road crossings with permanent losses greater than 500 linear feet of intermittent or perennial stream or the stream bed acreages listed in the table below associated with new alignments or realignments will be evaluated as an individual permit (i.e., a Letter of Permission or Standard Permit).

Table of Acreages at Varying Stream Widths for 500 Linear Feet of Impact	
Stream Width (Feet)	Acres of Stream at Varying Widths for 500 Linear Feet of Stream
1	0.011
2	0.023
3	0.034
4	0.046
5	0.057
6	0.069
7	0.080
8	0.092
9	0.103
10	0.115

- (b) In addition to the notification requirements contained in NWP 14, the permittee must submit a PCN to the district engineer prior to commencing the activity for the permanent loss of greater than 300 linear feet of stream bed or the stream bed acreages listed in the table below. (See General Condition 32 and the definition of "loss of waters of the United States" in the Nationwide Permits for further information.)

Table of Acreages at Varying Stream Widths for 300 Linear Feet of Impact	
Stream Width (Feet)	Acres of Stream at Varying Widths for 300 Linear Feet of Stream
1	0.007
2	0.014
3	0.021
4	0.028
5	0.034
6	0.041
7	0.048
8	0.055
9	0.062
10	0.069

4. Notification in accordance with General Condition 32 is required to the Corps for all activities located in the following Section 10 waterways, to include the portion of their tributaries below the Ordinary High Water Mark or navigation pool, or otherwise subject to inundation, by the Section 10 waterway:

- Mississippi River
- Ohio River
- Licking River
- Kentucky River
- Salt River
- Green River
- Cumberland River
- Tennessee River
- Big Sandy River (from mouth to Louisa, KY)

5. All applications and requests should be submitted electronically. To submit applications or other requests electronically, all documents should be saved as a PDF document, and then submitted as an attachment in an email to the following email address:

[CELRL.Door.To.The.Corps@usace.army.mil](mailto:CELRL.Door.To.The.Corps@usace.army.mil)

Your email should include the following:

- a) Subject Line with the name of the applicant, type of request, and location (County and State). Example: RE: Doe, John, DA Permit Application, Jefferson County, KY
- b) Brief description of the request and contact information (phone number, mailing address, and email address) for the applicant and/or their agent.

c) Project Location: Address and Latitude/Longitude in decimal degrees (e.g. 42.927883, -88.362576).

All forms that require signature must be digitally signed or signed manually, scanned and then sent electronically.

Electronic documents must have sufficient resolution to show project details. In order to have the highest quality documents, the original digital documents should be converted to PDF rather than providing scanned copies of original documents.

The electronic application and attached documents must not exceed 10 megabytes (10MB).

6. For all activities, the applicant shall review the U.S. Fish and Wildlife Service's IPaC website: <http://ecos.fws.gov/ipac> to determine if the activity might affect threatened and/or endangered species or designated critical habitat. If federally-listed species or designated critical habitat are identified, a PCN in accordance with General Condition 18 and 32 would be triggered and the official species list generated from the IPaC website must be submitted with the PCN.

Further information:

Outstanding State or National Resource Water (OSNRWs), Exceptional Waters (EWs), and Coldwater Aquatic Habitat Waters (CAHs) are waters designated by the Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet. The list can be found at the following link: <http://eppcapp.ky.gov/spwaters/>

Designated Critical Habitat (DCH) under the Endangered Species Act is determined within the Commonwealth of Kentucky by the U.S. Fish and Wildlife Service. The current list of Kentucky's Threatened, Endangered, and Federal Candidate Species can be found at the following link: <http://www.fws.gov/frankfort/EndangeredSpecies.html>

Information on Pre-Construction Notification (PCN) can be found at NWP General Condition No. 32 in the Federal Register (See volume 86, date January 13, 2021, pp 2867-2874 for the text of Section C, General Conditions).

**COORDINATING RESOURCE AGENCIES**

Chief, Wetlands Regulatory Section  
U.S. Environmental Protection Agency  
Region IV  
Atlanta Federal Center  
61 Forsyth Street, SW  
Atlanta, Georgia 30303

Supervisor  
U.S. Fish & Wildlife Service  
JC Watts Federal Building, Room 265  
330 West Broadway  
Frankfort, Kentucky 40601

Supervisor  
401 Water Quality Certification  
Kentucky Division of Water  
300 Sower Boulevard, 3<sup>rd</sup> Floor  
Frankfort, KY 40601

Commissioner  
Department of Fish and Wildlife Resources  
#1 Sportsman's Lane  
Frankfort, KY 40601

Executive Director and State Historic Preservation Officer  
Kentucky Heritage Council  
410 High Street  
Frankfort, KY 40601





**DEPARTMENT OF THE ARMY**  
**U.S. ARMY CORPS OF ENGINEERS, LOUISVILLE DISTRICT**  
**600 DR. MARTIN LUTHER KING JR PL**  
**LOUISVILLE, KY 40202**

September 11, 2023

Regulatory Division  
South Branch (RDS)  
ID No. LRL-2016-00668-ncc

Mr. Andrew Logsdon  
Kentucky Transportation Cabinet (KYTC)  
Division of Environmental Analysis  
200 Mero Street  
Frankfort, Kentucky 40622

Dear Mr. Logsdon,

This is in response to your request for a Department of the Army (DA) permit to discharge fill or dredged material into “waters of the United States (U.S.)” associated with the construction of road improvements to approximately 1.81 miles of KY 185, beginning 0.24 mile south of Pruitt Road (Mile Post 6.54) and ending 0.16 mile south of KY 1320 (Mile Post 8.35). The majority of the project would involve construction of a new roadway on a new alignment east of the existing roadway (KYTC Item No. 3-110.30). The proposed roadway would consist of two 11-foot-wide driving lanes with four-foot-wide shoulders and guardrails, where necessary. A truck climbing lane would also be added where applicable. New intersections and connectors with major roadways and numerous entrances would also be constructed as part of the project. Impacts to the landscape include typical road construction activities, tree removal for construction access, and grading to allow for proper drainage. The proposed project is located in north of Bowling Green, Warren County, Kentucky (Latitude: 37.091597/Longitude: -86.445130). We have reviewed your application and have made the following determinations: The work is minor in nature, will not have a significant impact on the environment, and should encounter no opposition.

Based on these determinations, your proposed work satisfies the Transportation Letter of Permission (LOP) criteria, as specified in our regulations. Therefore, you are authorized, in accordance with 33 USC 1344, to place fill material into approximately 311 linear feet (0.057 acre) of a perennial stream, 280 linear feet (0.013 acre) of an intermittent stream, 697 linear feet (0.033 acre) of four ephemeral streams, 0.23 acres of two emergent wetlands, and 1.04 acre of two open water ponds, respectively. This permission is granted with the following Special Conditions:

- a. All work authorized by this permit shall be performed in strict compliance with the attached plans, dated June 8, 2022, for KYTC Item No. 3-110.3, which are a part of this

permit. Any modification to these plans affecting the authorized work shall be approved by the U.S. Army Corps of Engineers prior to implementation.

- b. The Permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit. A copy of this permit, including all conditions, drawings and attachments shall be available at the project site during the construction phase of this project. A description of the authorized work, as provided in the DA permit on ENG FORM 4336, shall be displayed at the project site during construction.
- c. The Permittee shall comply with all conditions of the Section 401 WQC No. WQCLOP2022-126-7, dated November 10, 2022, issued by the Kentucky Division of Water, which are incorporated herein by reference.
- d. Prior to initiating the authorized work, the Permittee shall provide written verification to the U.S. Army Corps of Engineers that 1,568 stream AMUs and 0.7 wetland AMUs have been purchased from the Kentucky Department of Fish and Wildlife Resources (KDFWR) In-Lieu Fee Program prior to the discharge of fill material into “waters of the U.S.” The required verification shall reference this project's permit number (LRL-2016-00668-ncc). Please note that the cost per credit is determined by KDFWR, in accordance with the requirements set forth in 33 CFR 332.8, and may increase or decrease. Inquiries regarding credit purchase may be made directly to KDFWR by calling Mr. Clifford Scott at (502) 564-5101, by email at: clifford.scott@ky.gov, or in writing at: Kentucky Department of Fish and Wildlife Resources, Division of Fisheries, #1 Sportsman’s Lane, Frankfort, Kentucky, 40601.
- e. To avoid impacts to the gray bat and listed mussel species, the Permittee shall implement the site-specific erosion control minimization measures discussed in Section 5.5 of the project’s biological assessment to limit effects to streams and caves.
- f. To avoid impacts to air and water flows into and out of caves used by the gray bat, the Permittee shall use controlled blasting techniques and shall limit blasting to May 15 – August 15, when swarming/spring emergence habitat is unoccupied.
- g. To avoid impacts to the northern long-eared bat (NLEB), the Permittee shall not perform tree clearing activities during the NLEB maternity season of June 1 – July 31.
- h. To mitigate for the loss of 39.98 acres of known Indiana bat swarming 2 forested habitat, the permittee shall follow the process outlined in the 2020 KYTC-FHWA Programmatic Bat Program for Foraging Habitat, and Summer/Temporary Roosting in the Commonwealth of Kentucky between the Federal Highway Administration, KYTC, and the U.S. Fish and Wildlife Service (USFWS) Kentucky Field Office (KFO). The Permittee shall contact the KFO of the USFWS by calling (502) 695-0468 to determine the appropriate mitigation in accordance with the Conservation Strategy. The Permittee

shall provide the Corps with a receipt of payment prior to any tree removal. If additional forested areas not previously considered in the DA permit application are to be cleared, the Permittee shall notify the Corps and the USFWS in advance of any additional tree clearing to determine if re-initiation of Endangered Species Act consultation is required.

- i. The Permittee shall implement all necessary precautions and measures so that any activity will not kill, injure, capture, harass, or otherwise harm any protected federally listed species. If the Permittee discovers or observes an injured/dead listed endangered or threatened species while accomplishing the authorized work, the Permittee shall immediately notify the Corps to initiate the required federal coordination.
- j. Unless otherwise requested in the application and depicted on the approved work plans, culverts greater than 48 inches in diameter shall be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter and less shall be buried or placed on the stream bed as practicable and appropriate to maintain aquatic organism passage during drought or low flow conditions and maintain the existing channel slope. Culverts shall be constructed in a manner that ensures channel stability.
- k. The permittee shall comply with the enclosed General Conditions.
- l. The time limit for completing the work authorized ends on **September 11, 2028**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least 1 month before the above date is reached.
- m. Upon completion of construction, you are to notify the District Engineer. The enclosed Completion Report must be completed and returned to this office.

For your information, effective March 9, 1999, the Corps of Engineers instituted an administrative appeals process. A permit applicant may appeal an individual permit denial or an individual permit that was issued with conditions (a proffered individual permit). To initiate the appeals process regarding the terms and conditions of this permit, you must write a letter to the district engineer explaining your objections to the permit. The enclosed Notification of Applicant Options (NAO) outlines the initial appeals process and options available to you. The objection letter must be received by the district engineer within 60 days of the date of the NAO. Please be aware that no work can occur in jurisdictional waters until the appeals process is completed.

Based on the information provided to this office, the site contains approximately 311 linear feet (0.057 acre) of a perennial stream, 124 linear feet (0.009 acre) of two intermittent streams, 1,097 linear feet (0.057 acre) of five ephemeral streams, 2.26 acres of five wetlands, and 1.04 acre of two open water ponds, respectively, that may be considered jurisdictional "waters of the U.S.," in accordance with the Regulatory Guidance Letter for Jurisdictional Determinations issued by the U.S. Army Corps of Engineers on October 31, 2016 (RGL No. 16-01).

As indicated in the guidance, this Preliminary Jurisdictional Determination (PJD) is non-binding and cannot be appealed and only provides a written indication that "waters of the U.S.,"

including wetlands, may be present on-site. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a PJD will treat all waters and wetlands on the site as if they are jurisdictional “waters of the U.S.”

Attached to this letter are a PJD, a Notification of Administrative Appeal Options and Process and Request for Appeal (NAO-NAP) form, as mentioned above. However, a PJD is not appealable and impacting “waters of the U.S.” identified in the PJD will result in you waiving the right to request an AJD at a later date. An AJD may be requested (which may be appealed), by contacting me for further instruction.

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are U.S. Department of Agriculture (USDA) program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center prior to starting work.

Please indicate your acceptance of the terms and conditions of the permit by signing and dating both copies of the permit form on the lines provided for "Permittee" and "Date" and return one copy to us via email to [norma.c.condra@usace.army.mil](mailto:norma.c.condra@usace.army.mil). This permit will not be valid until we receive the signed copy.

Should any modification of the plans become necessary for any reason, approval from the District Engineer must be received prior to the start of the work. Copies of this letter will be sent to the appropriate coordinating agencies (see enclosure for addresses).

If you have any questions, please contact this office by writing to the above address, ATTN: CELRL-RDS, or by calling Mrs. Norma C. Condra at (502) 315-6680. All correspondence pertaining to this matter should refer to our ID No. LRL-2016-00668-ncc.

FOR THE DISTRICT ENGINEER

Sincerely,

Eric Reusch  
Chief, Regulatory Division

(I accept the conditions of this authorization):

\_\_\_\_\_  
Kentucky Transportation Cabinet

\_\_\_\_\_  
Date

Enclosures:

1. Transportation LOP General Conditions
2. WQC Conditions
3. Project Plans

Copies Furnished:

U.S. Environmental Protection Agency  
[fitzgerald.austin@epa.gov](mailto:fitzgerald.austin@epa.gov)

U.S. Fish & Wildlife Service  
[kentuckyES@fws.gov](mailto:kentuckyES@fws.gov)

Kentucky Energy & Environment Cabinet  
Division of Water  
[401wqc@ky.gov](mailto:401wqc@ky.gov)

State Historic Preservation Officer  
Kentucky Heritage Council  
[khc.section106@ky.gov](mailto:khc.section106@ky.gov)

**Compliance Certification:**

**Permit Number: LRL-2016-00668-ncc**

**Name of Permittee: Kentucky Transportation Cabinet**

**Date of Issuance: September 11, 2023**

Upon completion of the activity authorized by this permit and any mitigation required by this permit, sign this certification, and return it to the following address:

U.S. Army Corps of Engineers  
CELRL-RDS  
P.O. Box 59  
Louisville, Kentucky 40201

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

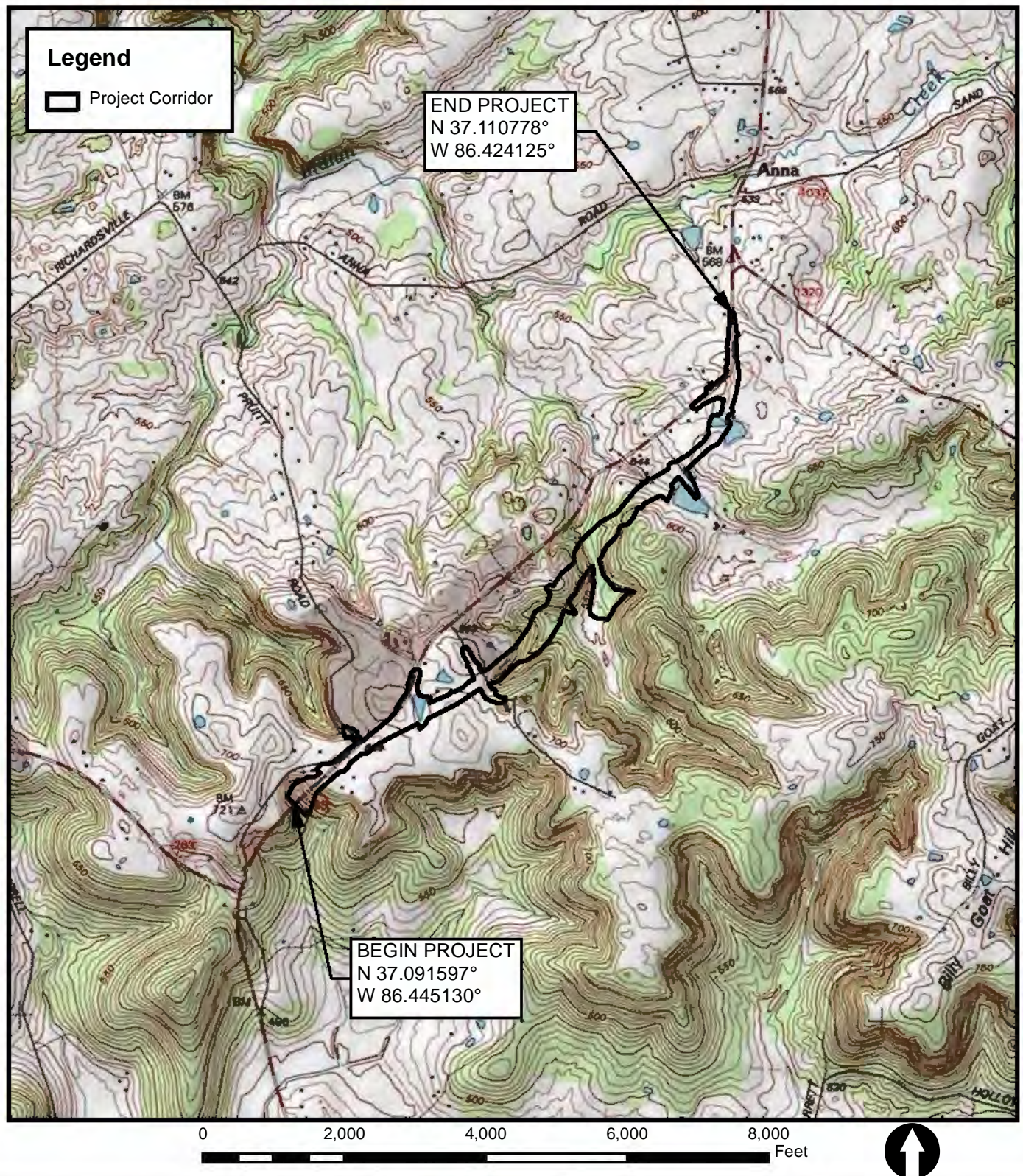
I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

\_\_\_\_\_  
Signature of Permittee

\_\_\_\_\_  
Date



Source: USA Topo Maps, (2013) NGS, USGS 7.5-minute Topographic Map - Bowling Green North, Kentucky Quadrangle.



R:\Residentgis\Projects\1062221\_KY\_185\_Spot\_Improvement\_1\MXD\Project\_Location\_Map.mxd, 06-8-2022, ebowman

KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30



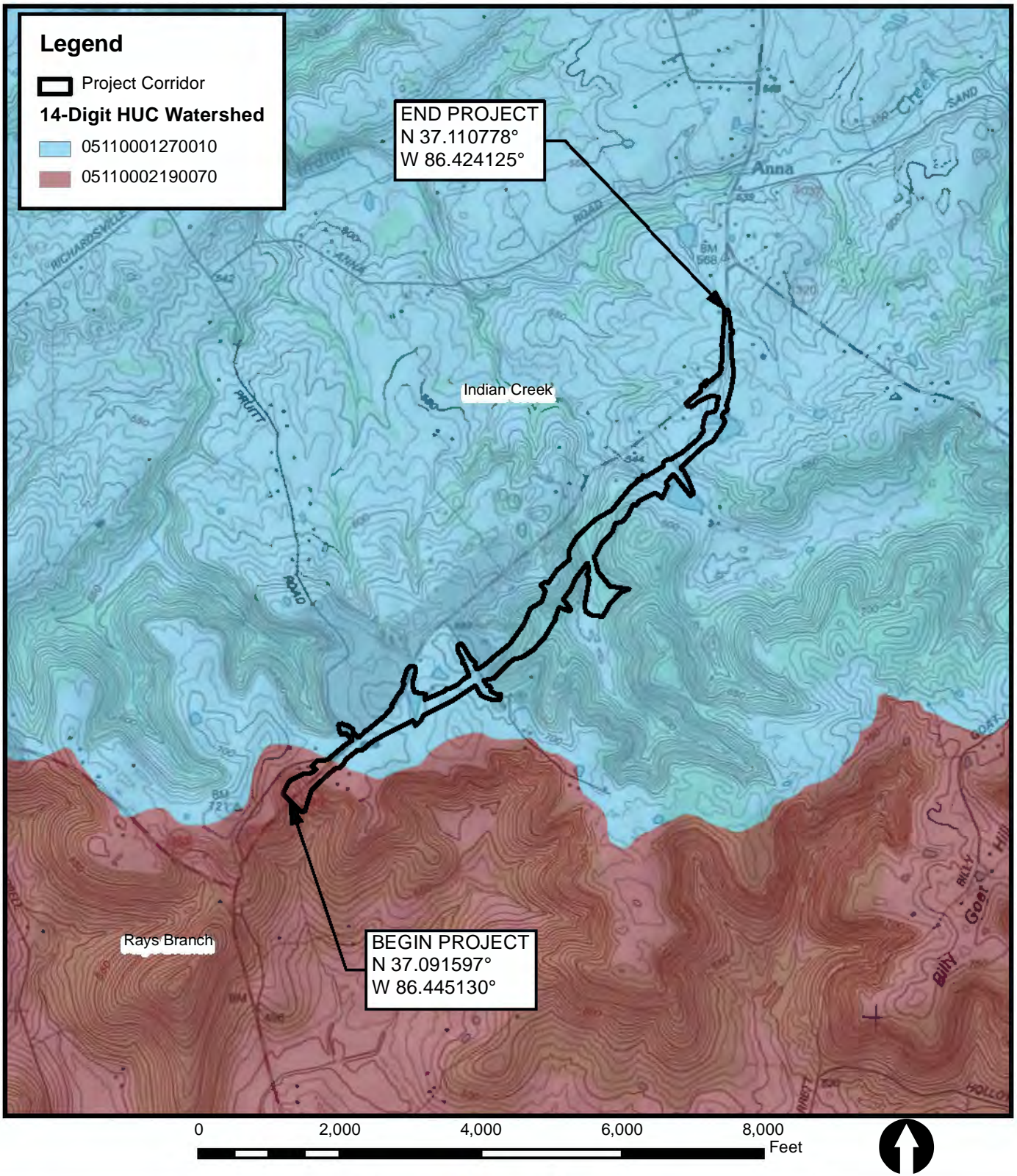
PROJECT LOCATION  
MAP

REVISED DATE: 06-08-22 DRAWN BY: EDB

FIGURE 1



Source: USA Topo Maps, (2013) NGS, USGS 7.5-minute Topographic Map - Bowling Green North, Kentucky Quadrangle; 14-Digit HUC Watershed by USGS - Water Resources of the United States.



R:\Residentgis\Projects\106221\_KY\_185\_Spot\_Improvement\_1\MXD\14-Digit HUC Watershed Map.mxd, 06-8-2022, ebowman

KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30









14-DIGIT HUC  
WATERSHED MAP

REVISED DATE: 06-08-22 DRAWN BY:EDB

FIGURE 2



**Legend**

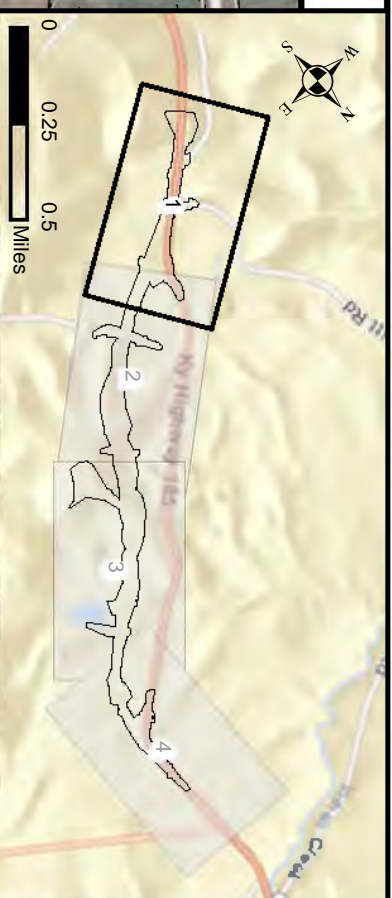
-  Project Corridor
-  Ephemeral Stream
-  Culvert
-  Pond
-  Wetland
-  Wetland Determination Data Point



NOTE: JURISDICTIONAL WATER/WETLAND BOUNDARIES WERE DELINEATED AND SURVEYED BY RES/WETLAND SCIENTISTS ON MAY 17 AND 18, 2022. THESE BOUNDARIES HAVE NOT BEEN VERIFIED BY THE U.S. ARMY CORPS OF ENGINEERS. USE OF THIS MAP IS FOR PRELIMINARY PLANNING PURPOSES ONLY.

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WARREN COUNTY  
114GR24D008



KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30

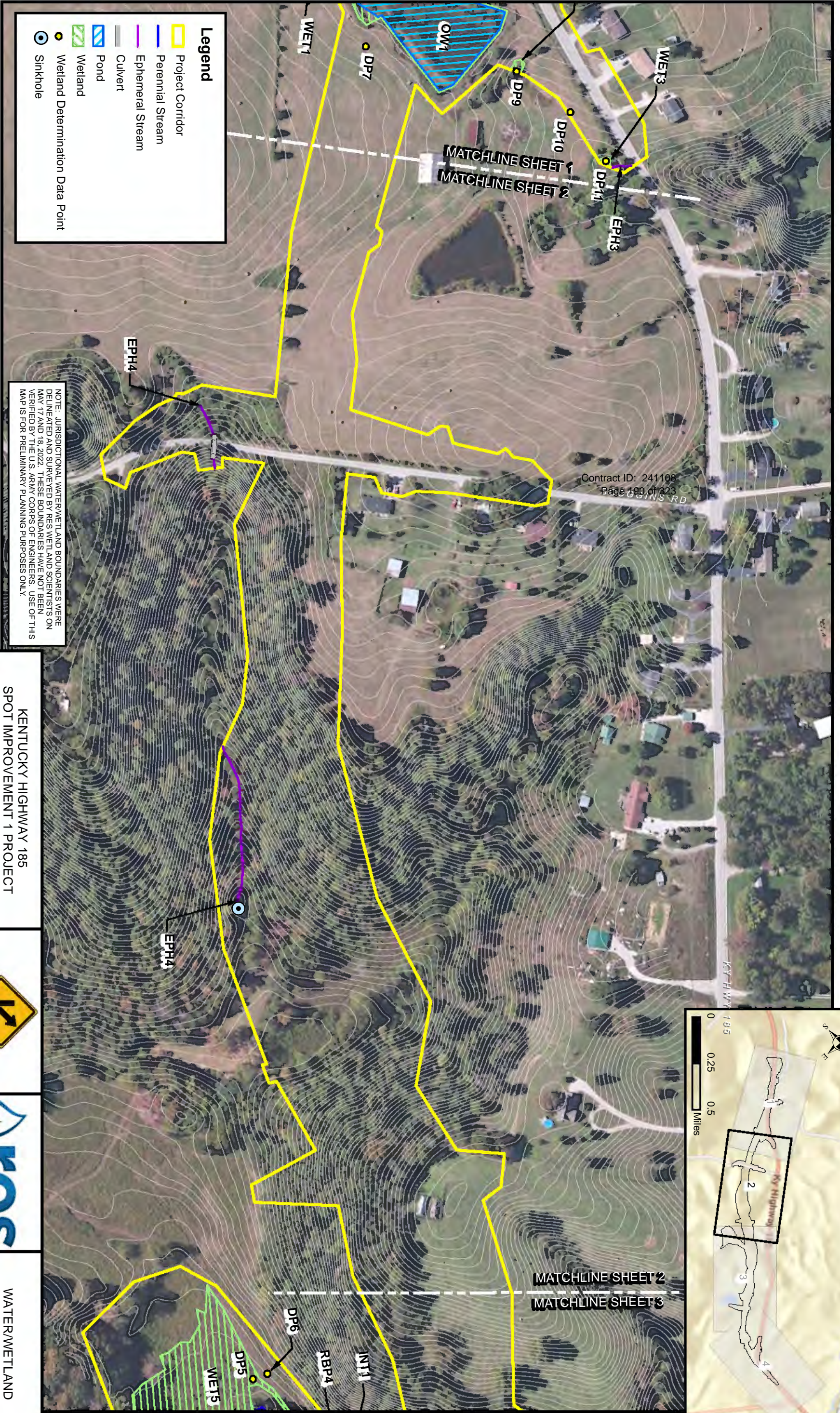
REVISED DATE: 06-13-22 DRAWN BY: ED8



WATER/WETLAND  
LOCATION MAP

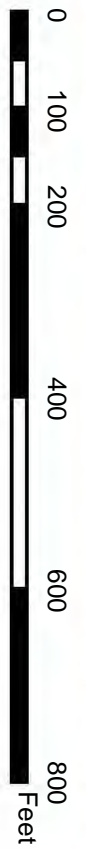
FIGURE 3  
SHEET 1 of 4





**Legend**

- Project Corridor
- Perennial Stream
- Ephemeral Stream
- Culvert
- Pond
- Wetland
- Wetland Determination Data Point
- Sinkhole



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WARREN COUNTY  
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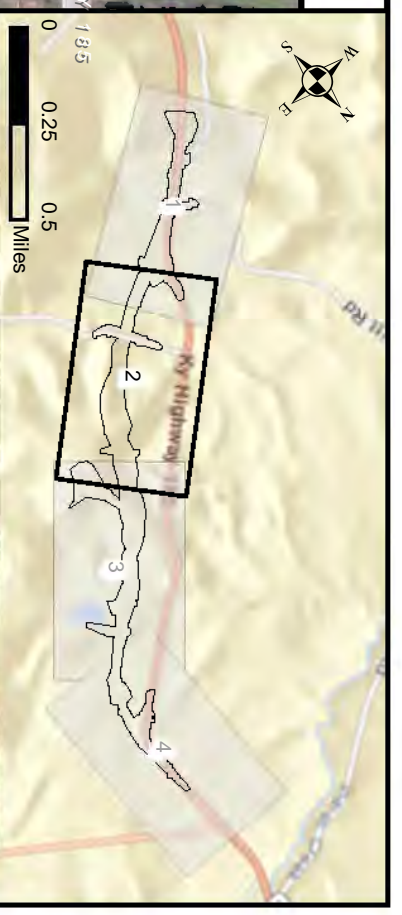
KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30

REVISED DATE: 06-13-22 DRAWN BY: EDB

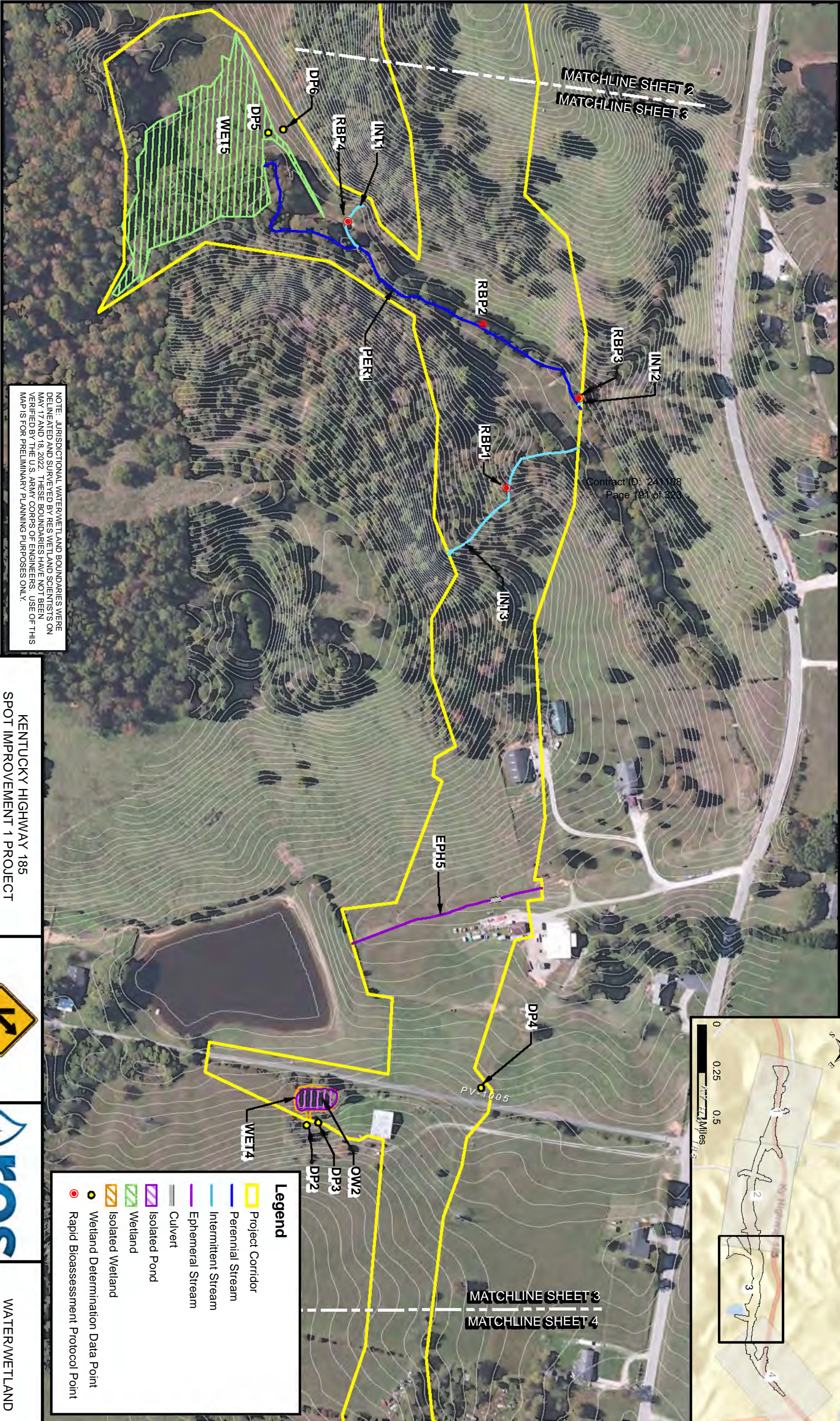


WATER/WETLAND  
LOCATION MAP

FIGURE 3  
SHEET 2 of 4





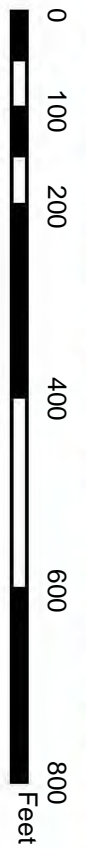


MATCHLINE SHEET 2  
MATCHLINE SHEET 6

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MATCHLINE SHEET 3  
MATCHLINE SHEET 4

NOTE: JURISDICTIONAL WATERWETLAND BOUNDARIES WERE DELINEATED AND SURVEYED BY RES WETLAND SCIENTISTS ON MAY 17 AND 18, 2022. THESE BOUNDARIES HAVE NOT BEEN VERIFIED BY THE U.S. ARMY CORPS OF ENGINEERS. USE OF THIS MAP IS FOR PRELIMINARY PLANNING PURPOSES ONLY.



WARREN COUNTY  
114GF24D008

KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30  
REVISED DATE: 06-13-22 DRAWN BY: EDB



WATER/WETLAND  
LOCATION MAP  
FIGURE 3  
SHEET 3 of 4

Legend	
	Project Corridor
	Perennial Stream
	Intermittent Stream
	Ephemeral Stream
	Culvert
	Isolated Pond
	Wetland
	Isolated Wetland
	Wetland Determination Data Point
	Rapid Bioassessment Protocol Point







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WARREN COUNTY  
114GR24D008






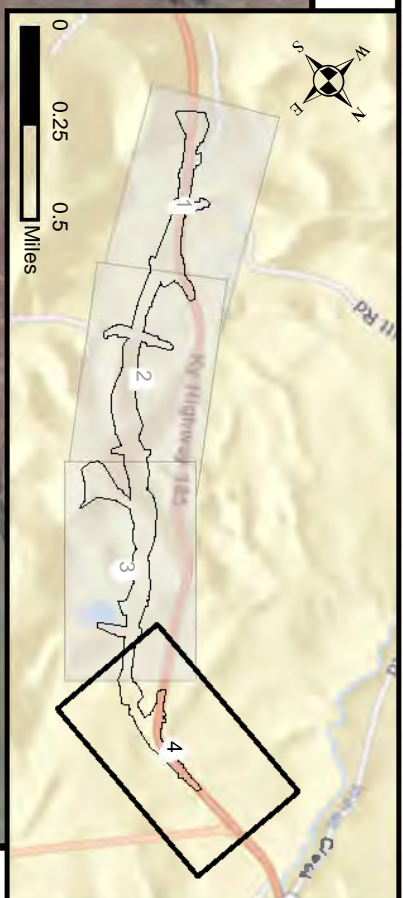
KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30  
REVISED DATE: 06-13-22 DRAWN BY: ED8



WATER/WETLAND  
LOCATION MAP  
FIGURE 3  
SHEET 4 of 4

**Legend**

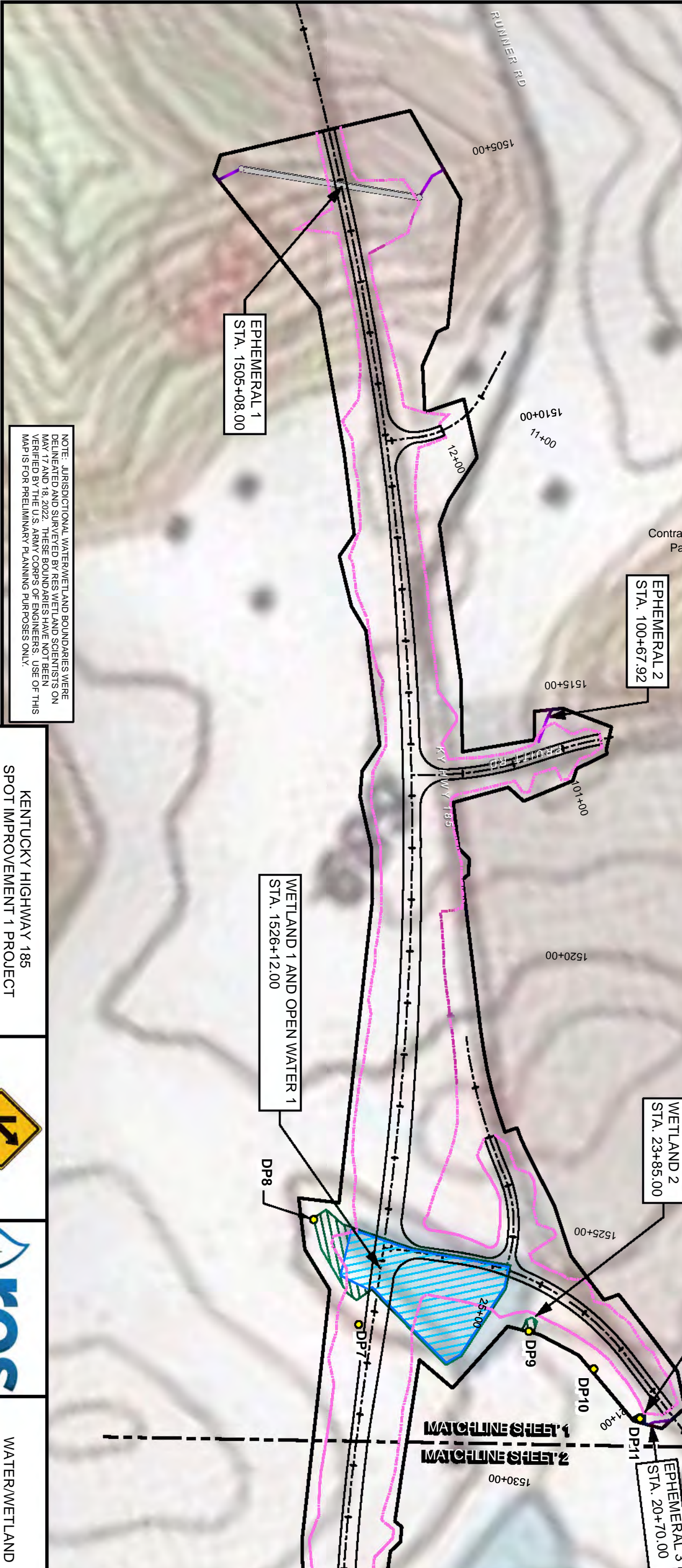
-  Project Corridor
-  Pond
-  Wetland Determination Data Point





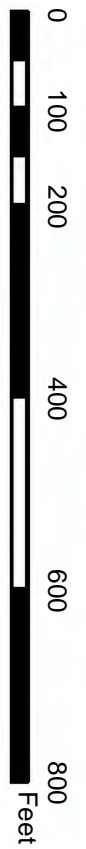
**Legend**

- Project Corridor
- Proposed Limits of Disturbance
- Proposed Roadway
- Ephemeral Stream
- Culvert
- Pond
- Wetland
- Wetland Determination Data Point

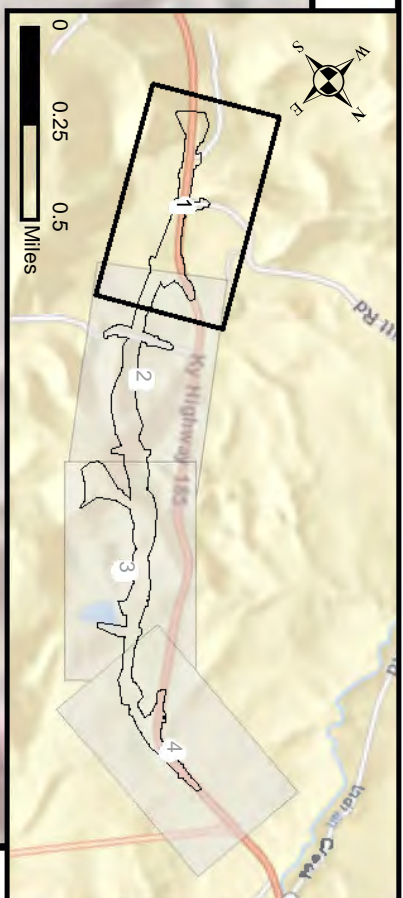


Contract ID: 241108  
Page 193 of 323

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WARREN COUNTY  
114GR24D008



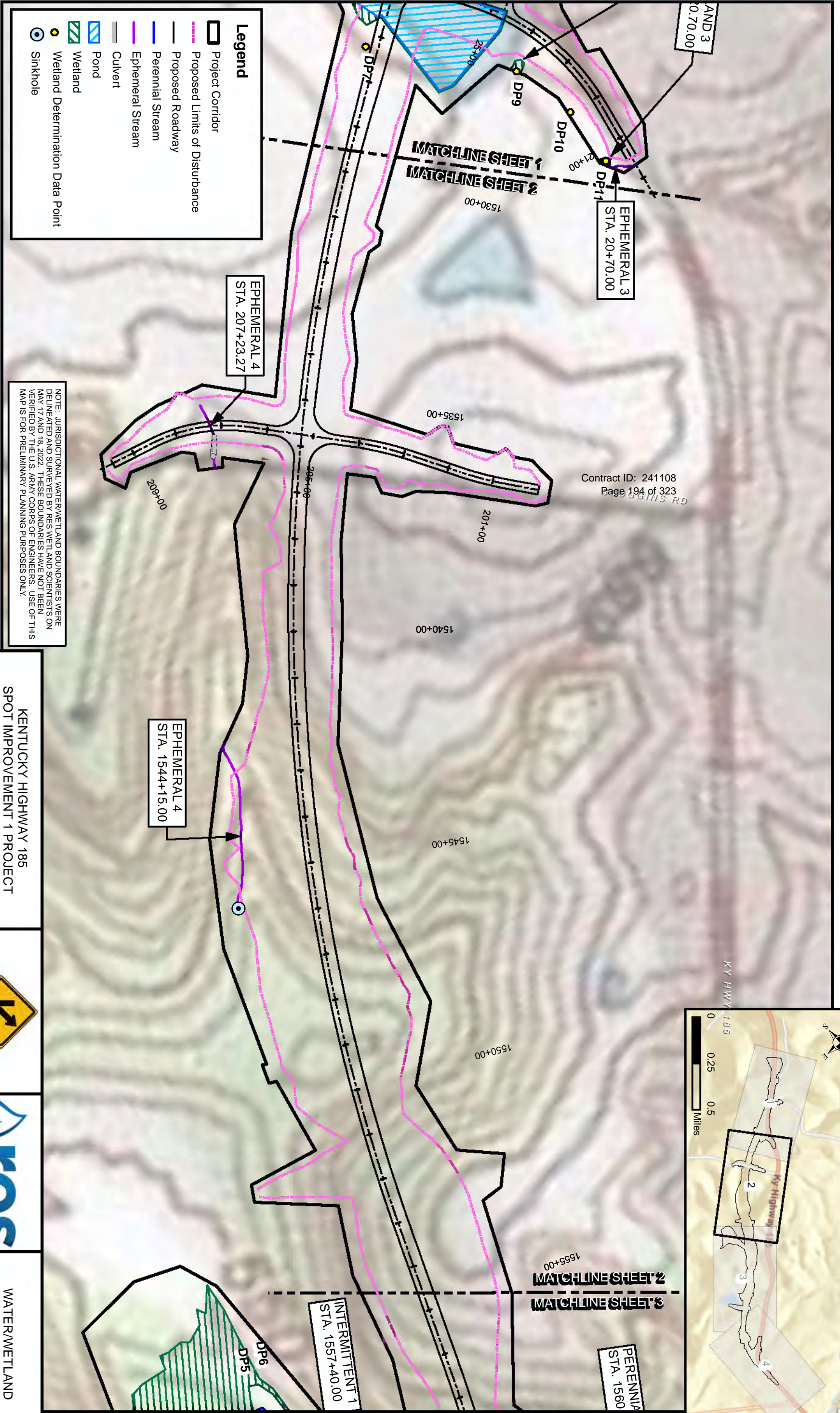
KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30  
REVISED DATE: 06-13-22 DRAWN BY: EDB



WATER/WETLAND  
STATION MAP  
FIGURE 4  
SHEET 1 of 4

MATCHLINE SHEET 1  
MATCHLINE SHEET 2

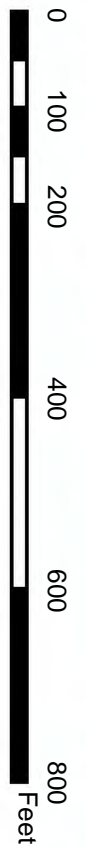




**Legend**

- Project Corridor
- Proposed Limits of Disturbance
- Proposed Roadway
- Perennial Stream
- Ephemeral Stream
- Culvert
- Pond
- Wetland
- Wetland Determination Data Point
- Sinkhole

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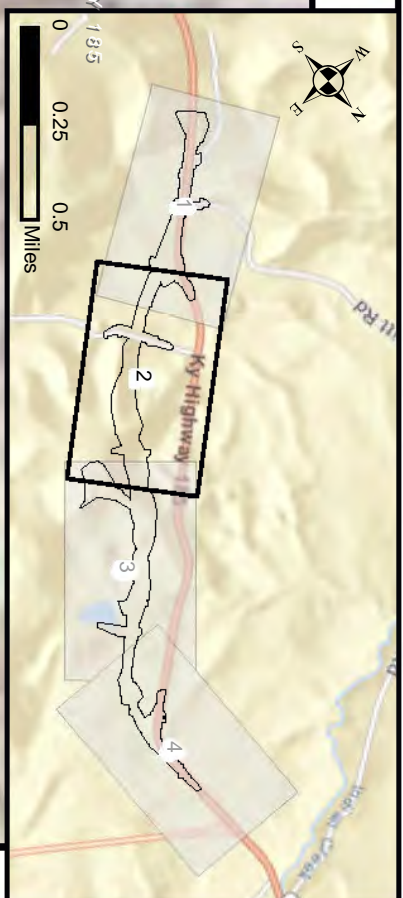
WARREN COUNTY  
114GR24D008

Contract ID: 241108  
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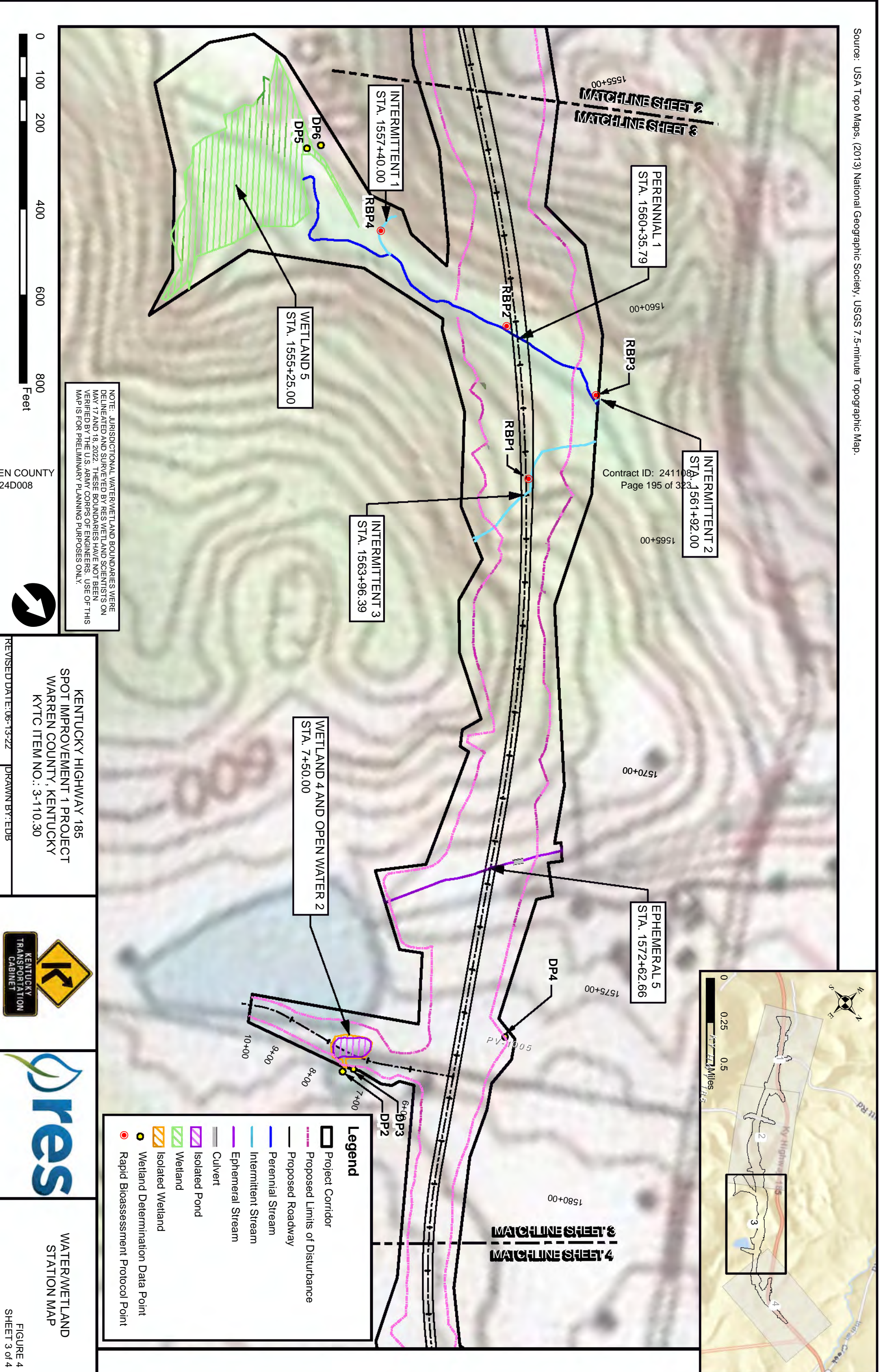
KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30  
REVISED DATE: 06-13-22 DRAWN BY: EDB



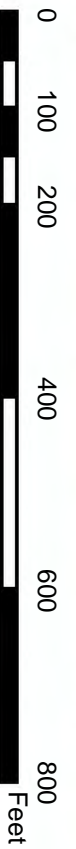
WATER/WETLAND  
STATION MAP  
FIGURE 4  
SHEET 2 of 4



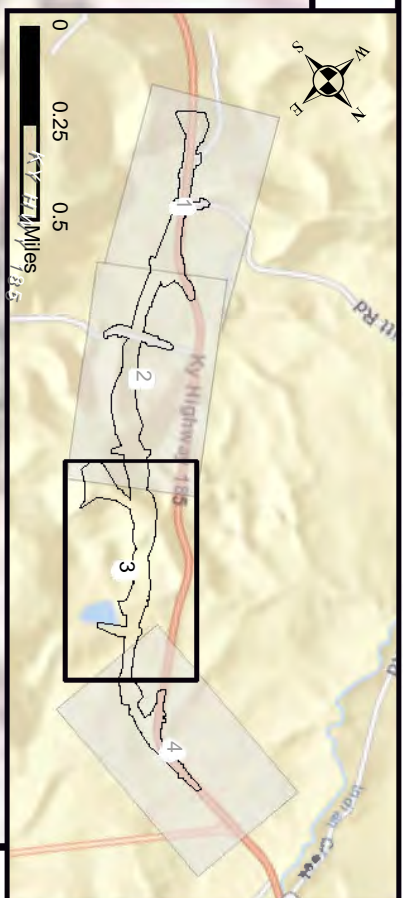




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WARREN COUNTY  
114GR24D008



Legend	
	Project Corridor
	Proposed Limits of Disturbance
	Proposed Roadway
	Perennial Stream
	Intermittent Stream
	Ephemeral Stream
	Culvert
	Isolated Pond
	Wetland
	Isolated Wetland
	Wetland Determination Data Point
	Rapid Bioassessment Protocol Point

KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30



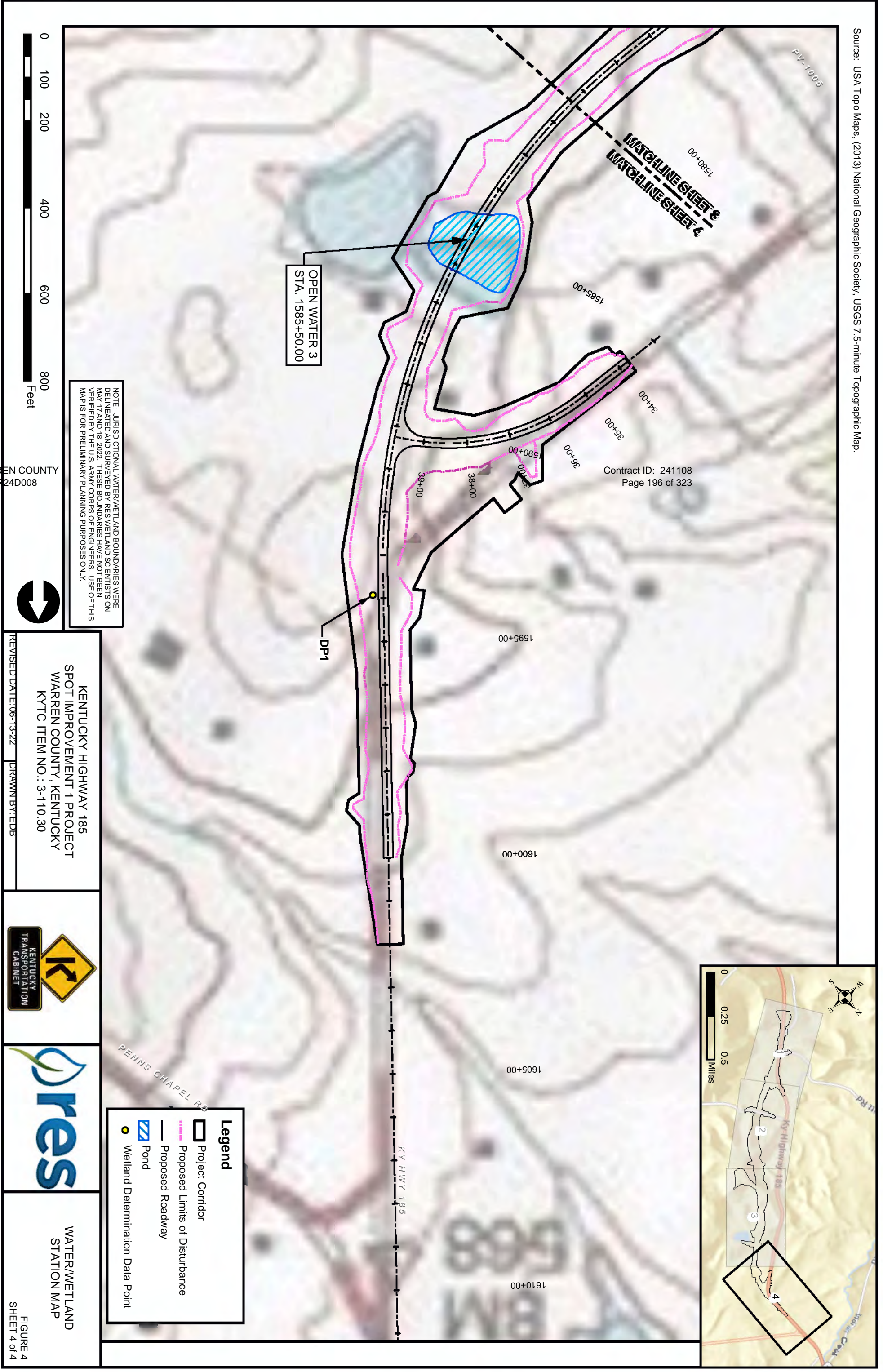
WATER/WETLAND  
STATION MAP  
FIGURE 4  
SHEET 3 of 4

Contract ID: 241108  
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MATCHLINE SHEET 2  
MATCHLINE SHEET 3

MATCHLINE SHEET 3  
MATCHLINE SHEET 4





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WARREN COUNTY  
114GR24D008

Contract ID: 241108  
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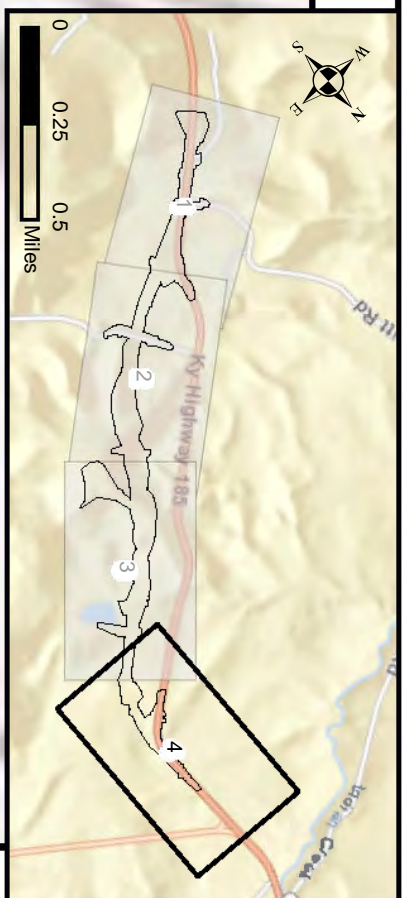
KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30  
REVISED DATE: 06-13-22 DRAWN BY: EDB



WATER/WETLAND  
STATION MAP  
FIGURE 4  
SHEET 4 of 4

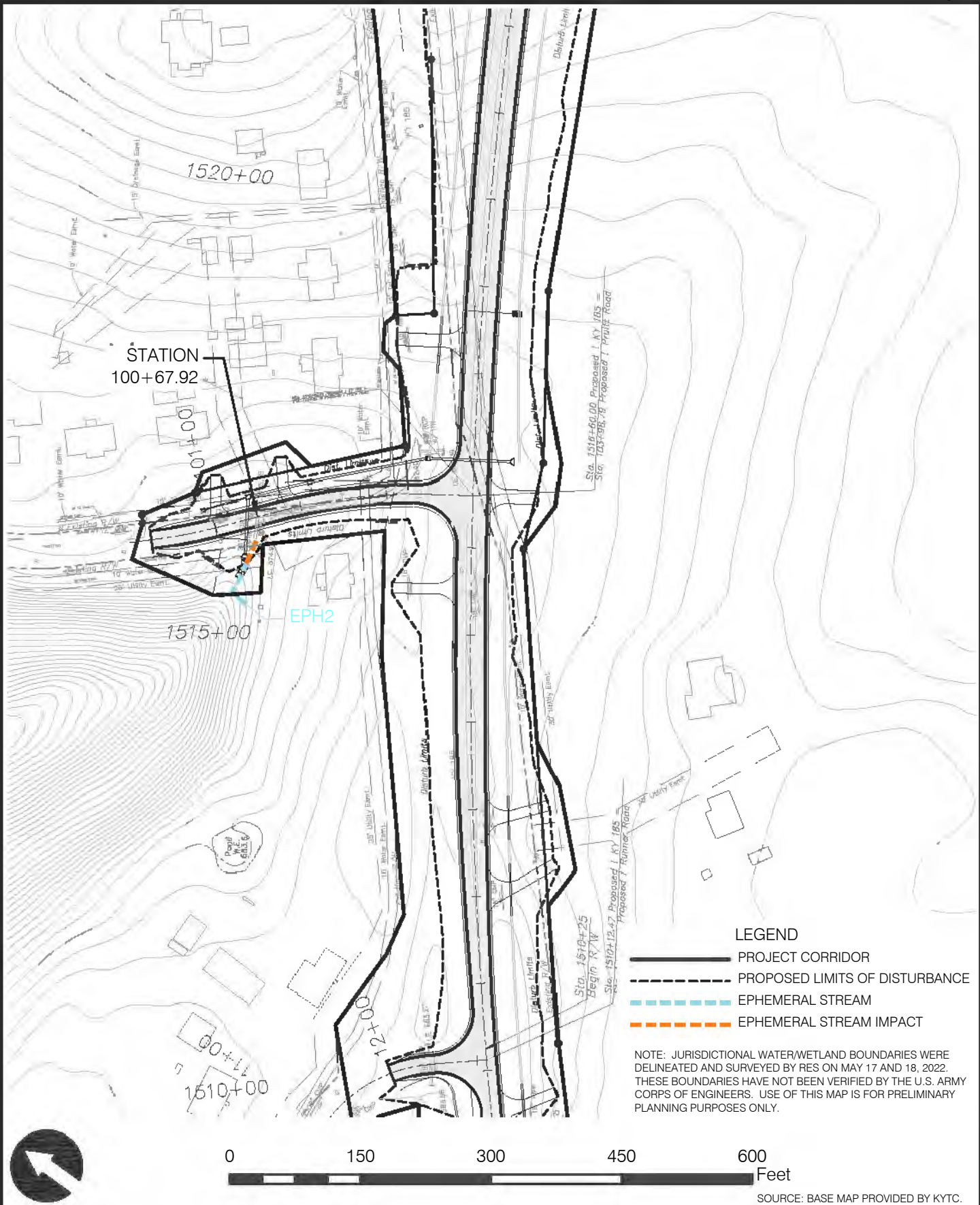
**Legend**

- Project Corridor
- Proposed Limits of Disturbance
- Proposed Roadway
- Pond
- Wetland Determination Data Point



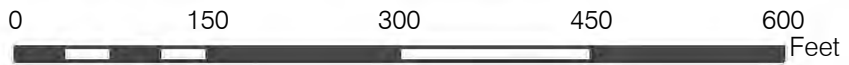


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- LEGEND**
- PROJECT CORRIDOR
  - PROPOSED LIMITS OF DISTURBANCE
  - EPHEMERAL STREAM
  - EPHEMERAL STREAM IMPACT

NOTE: JURISDICTIONAL WATER/WETLAND BOUNDARIES WERE DELINEATED AND SURVEYED BY RES ON MAY 17 AND 18, 2022. THESE BOUNDARIES HAVE NOT BEEN VERIFIED BY THE U.S. ARMY CORPS OF ENGINEERS. USE OF THIS MAP IS FOR PRELIMINARY PLANNING PURPOSES ONLY.



SOURCE: BASE MAP PROVIDED BY KYTC.

KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30

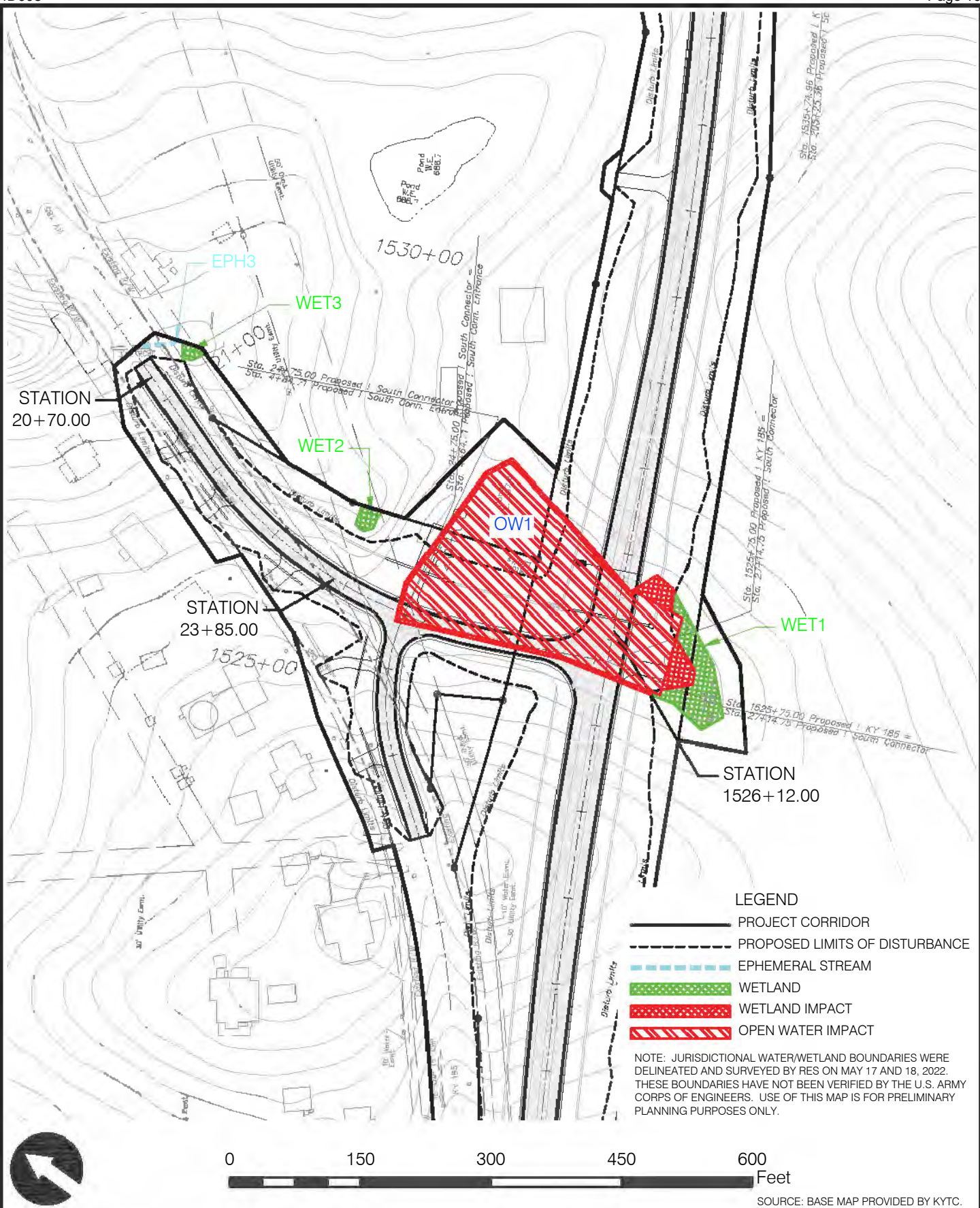


DETAIL STATION  
100+67.92

FIGURE 5  
SHEET 1 OF 6

REVISED DATE: 06-13-22    DRAWN BY: EDB

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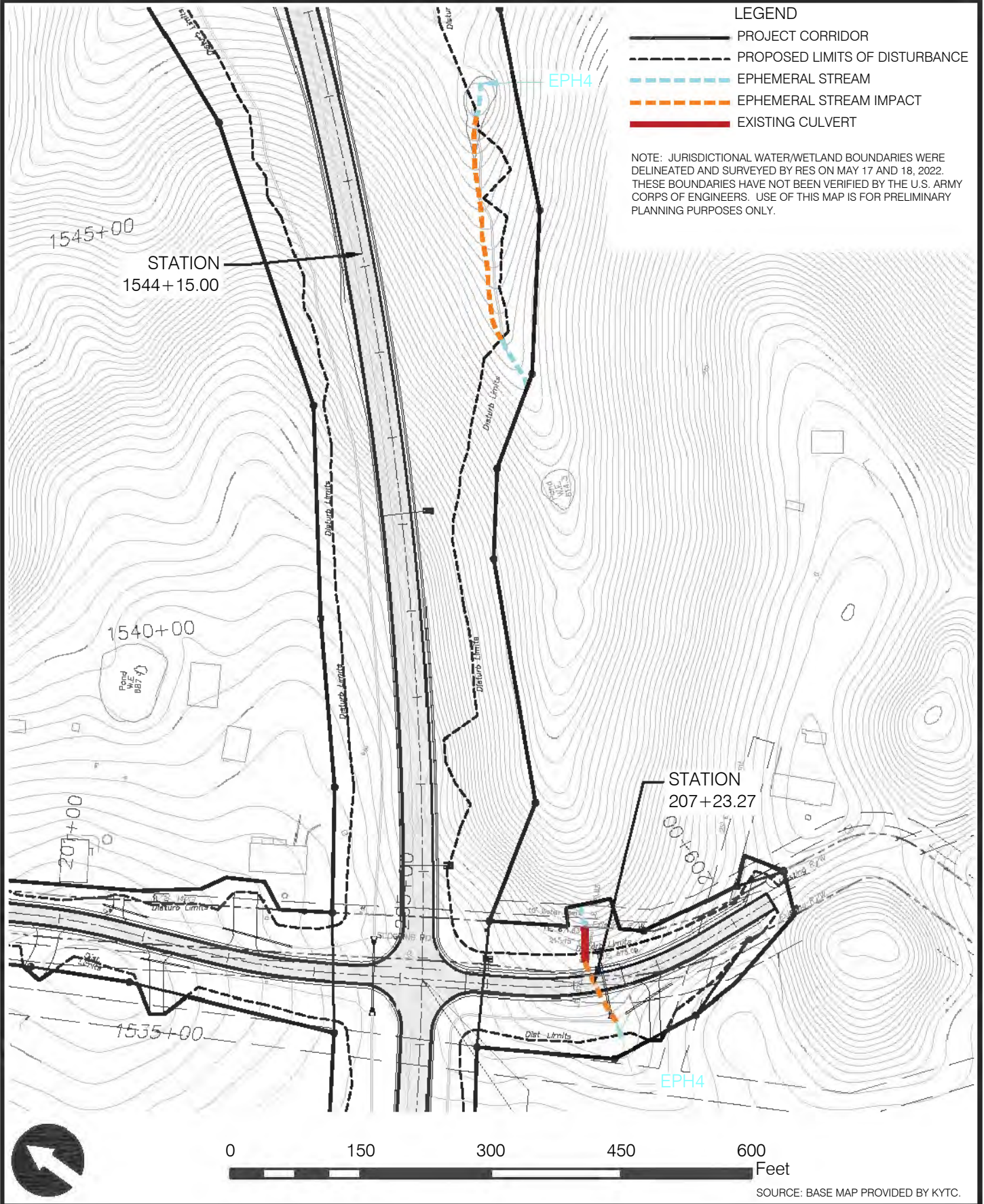
KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30



DETAIL STATION  
1526+12.00 and  
20+70.00 to 23+85.00

FIGURE 5  
SHEET 2 OF 6





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KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30



DETAIL STATION  
207+23.27 and 1544+15.00

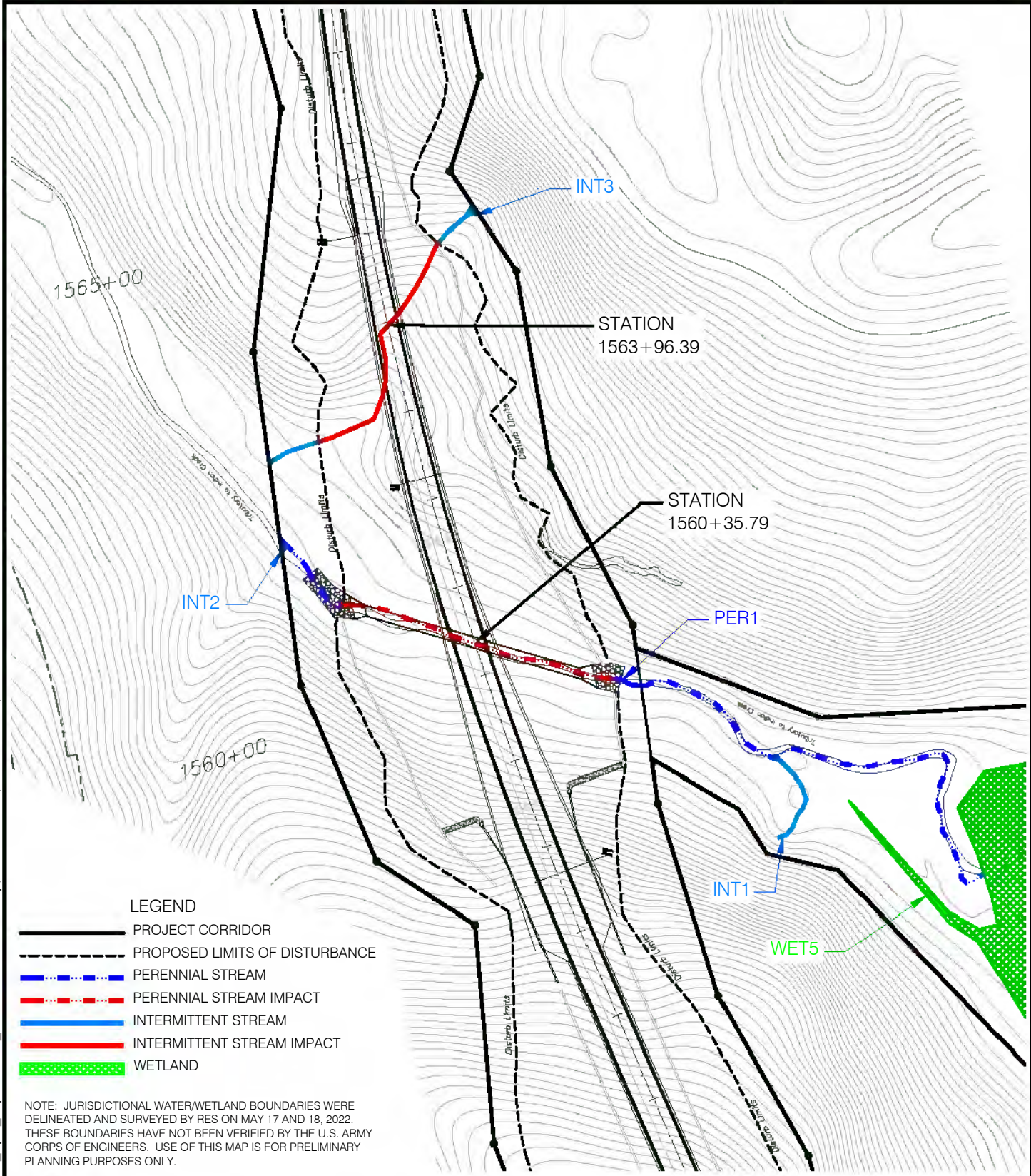
FIGURE 5  
SHEET 3 OF 6

REVISED DATE: 06-13-22

DRAWN BY: EDB



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- LEGEND**
- PROJECT CORRIDOR
  - PROPOSED LIMITS OF DISTURBANCE
  - PERENNIAL STREAM
  - PERENNIAL STREAM IMPACT
  - INTERMITTENT STREAM
  - INTERMITTENT STREAM IMPACT
  - WETLAND

NOTE: JURISDICTIONAL WATER/WETLAND BOUNDARIES WERE DELINEATED AND SURVEYED BY RES ON MAY 17 AND 18, 2022. THESE BOUNDARIES HAVE NOT BEEN VERIFIED BY THE U.S. ARMY CORPS OF ENGINEERS. USE OF THIS MAP IS FOR PRELIMINARY PLANNING PURPOSES ONLY.



SOURCE: BASE MAP PROVIDED BY KYTC.

KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30

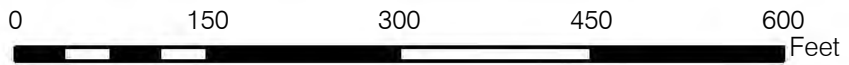
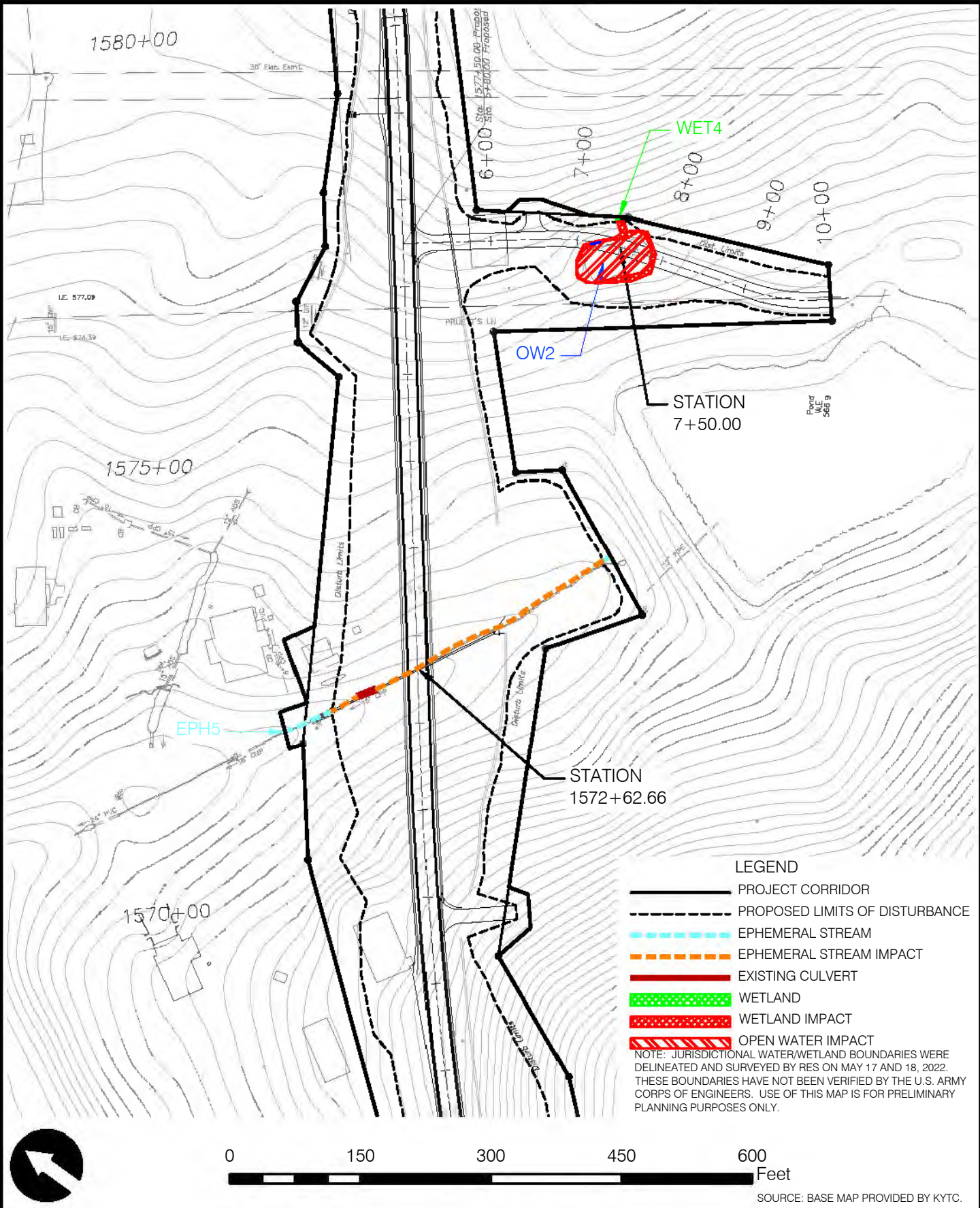


DETAIL STATION  
1560+35.79 to 1563+96.39

FIGURE 5  
SHEET 4 OF 6



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- LEGEND**
- PROJECT CORRIDOR
  - PROPOSED LIMITS OF DISTURBANCE
  - EPHEMERAL STREAM
  - EPHEMERAL STREAM IMPACT
  - EXISTING CULVERT
  - WETLAND
  - WETLAND IMPACT
  - OPEN WATER IMPACT

NOTE: JURISDICTIONAL WATER/WETLAND BOUNDARIES WERE DELINEATED AND SURVEYED BY RES ON MAY 17 AND 18, 2022. THESE BOUNDARIES HAVE NOT BEEN VERIFIED BY THE U.S. ARMY CORPS OF ENGINEERS. USE OF THIS MAP IS FOR PRELIMINARY PLANNING PURPOSES ONLY.

SOURCE: BASE MAP PROVIDED BY KYTC.

KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30

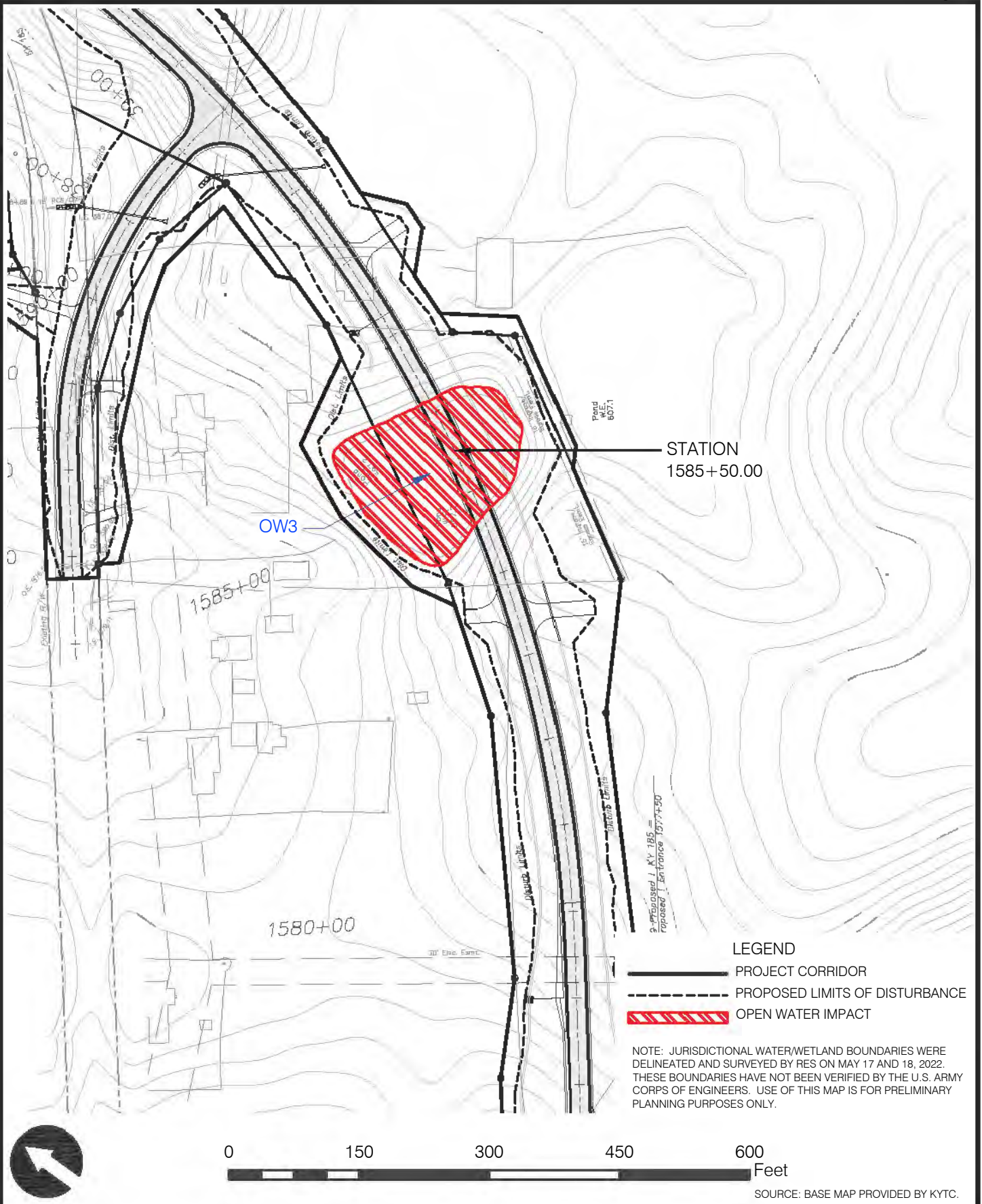





DETAIL STATION  
1572+62.66 and 7+50.00

FIGURE 5  
SHEET 5 OF 6

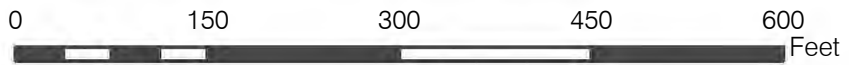
REVISED DATE: 06-13-22 DRAWN BY: EDB

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- LEGEND**
-  PROJECT CORRIDOR
  -  PROPOSED LIMITS OF DISTURBANCE
  -  OPEN WATER IMPACT

NOTE: JURISDICTIONAL WATER/WETLAND BOUNDARIES WERE DELINEATED AND SURVEYED BY RES ON MAY 17 AND 18, 2022. THESE BOUNDARIES HAVE NOT BEEN VERIFIED BY THE U.S. ARMY CORPS OF ENGINEERS. USE OF THIS MAP IS FOR PRELIMINARY PLANNING PURPOSES ONLY.



SOURCE: BASE MAP PROVIDED BY KYTC.

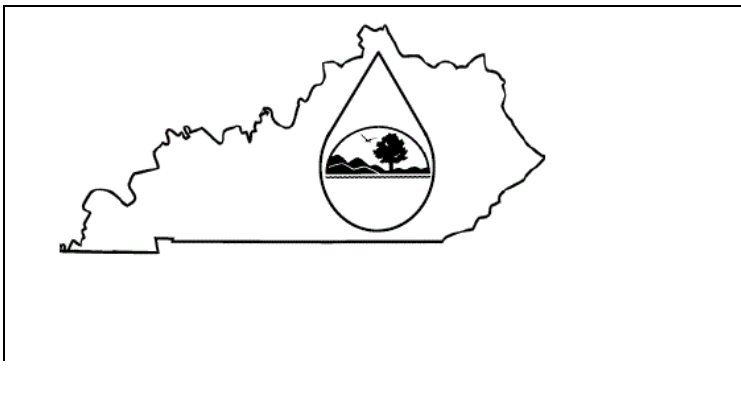
KENTUCKY HIGHWAY 185  
SPOT IMPROVEMENT 1 PROJECT  
WARREN COUNTY, KENTUCKY  
KYTC ITEM NO.: 3-110.30



DETAIL STATION  
1585+50.00

FIGURE 5  
SHEET 6 OF 6





## KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES)

Notice of Intent (NOI) for coverage of Storm Water Discharge  
Associated with Construction Activities Under the KPDES Storm  
Water General Permit KYR100000

[Click here for Instructions  
\(Controls/KPDES\\_FormKYR10\\_Instructions.htm\)](#)

[Click here to obtain information and a copy of the KPDES General Permit.  
\(http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf\)](http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf)

(\*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field

Reason for Submittal:(*) <input type="text" value="Application for New Permit Coverage"/>	Agency Interest ID: <input type="text" value="Agency Interest ID"/>	Permit Number:(✓) <input type="text" value="KPDES Permit Number"/>
--	--	---

If change to existing permit coverage is requested, describe the changes for which modification of coverage is being sought:(✓)

**ELIGIBILITY:**  
Stormwater discharges associated with construction activities disturbing individually one (1) acre or more, including, in the case of a common plan of development, contiguous construction activities that cumulatively equal one (1) acre or more of disturbance.

**EXCLUSIONS:**  
The following are excluded from coverage under this general permit:  
1) Are conducted at or on properties that have obtained an individual KPDES permit for the discharge of other wastewaters which requires the development and implementation of a Best Management Practices (BMP) plan;  
2) Any operation that the DOW determines an individual permit would better address the discharges from that operation;  
3) Any project that discharges to an Impaired Water listed in the most recent Integrated Report, §305(b) as impaired for sediment and for which an approved TMDL has been developed.

**SECTION I -- FACILITY OPERATOR INFORMATION (PERMITTEE)**

Company Name:(✓) <input type="text" value="Kentucky Transportation Cabinet District 3"/>	First Name:(✓) <input type="text" value="Gavin"/>	M.I.: <input type="text" value="MI"/>	Last Name:(✓) <input type="text" value="Hodges"/>
Mailing Address:(*) <input type="text" value="900 Morgantown Road"/>	City:(*) <input type="text" value="Bowling Green"/>	State:(*) <input type="text" value="Kentucky"/>	Zip:(*) <input type="text" value="42101"/>
eMail Address:(*) <input type="text" value="gavin.hodges@ky.gov"/>	Business Phone:(*) <input type="text" value="(502) 764-2070"/>	Alternate Phone: <input type="text" value="Phone"/>	

**SECTION II -- GENERAL SITE LOCATION INFORMATION**

Project Name:(*) <input type="text" value="3-110.30 KY185"/>	Status of Owner/Operator(*) <input type="text" value="State Government"/>	SIC Code(*) <input type="text"/>
Company Name:(✓) <input type="text" value="Kentucky Transportation Cabinet"/>	First Name:(✓) <input type="text" value="Gavin"/>	M.I.: <input type="text" value="MI"/>
Last Name:(✓) <input type="text" value="Hodges"/>		
Site Physical Address:(*) <input type="text" value="KY 185"/>		
City:(*) <input type="text" value="Bowling Green"/>	State:(*) <input type="text" value="Kentucky"/>	Zip:(*) <input type="text" value="42101"/>
County:(*) <input type="text" value="Warren"/>	Latitude(decimal degrees)(*)DMS to DD Converter (https://www.fcc.gov/media/radio/dms-decimal) <input type="text" value="37.102778"/>	Longitude(decimal degrees)(*) <input type="text" value="-86.431667"/>

**SECTION III -- SPECIFIC SITE ACTIVITY INFORMATION**

Project Description:(\*)

a. For single projects provide the following information

Total Number of Acres in Project:(✓)	Total Number of Acres Disturbed:(✓)
--------------------------------------	-------------------------------------

182	182
Anticipated Start Date:(✓) <input style="width:95%;" type="text"/>	Anticipated Completion Date:(✓) <input style="width:95%;" type="text"/>
b. For common plans of development provide the following information	
Total Number of Acres in Project:(✓) <input style="width:95%;" type="text"/> # Acre(s)	Total Number of Acres Disturbed:(✓) <input style="width:95%;" type="text"/> # Acre(s)
Number of individual lots in development, if applicable:(✓) <input style="width:95%;" type="text"/> # lot(s)	Number of lots in development:(✓) <input style="width:95%;" type="text"/> # lot(s)
Total acreage of lots intended to be developed:(✓) <input style="width:95%;" type="text"/> Project Acres	Number of acres intended to be disturbed at any one time:(✓) <input style="width:95%;" type="text"/> Disturbed Acres
Anticipated Start Date:(✓) <input style="width:95%;" type="text"/>	Anticipated Completion Date:(✓) <input style="width:95%;" type="text"/>

List Building Contractor(s) at the time of Application:(\*)

	Company Name			
+				

**SECTION IV -- IF THE PERMITTED SITE DISCHARGES TO A WATER BODY THE FOLLOWING INFORMATION IS REQUIRED ?**

Discharge Point(s):

	Unnamed Tributary?	Latitude	Longitude	Receiving Water Name
+				

**SECTION V -- IF THE PERMITTED SITE DISCHARGES TO A MS4 THE FOLLOWING INFORMATION IS REQUIRED ?**

Name of MS4:

Date of application/notification to the MS4 for construction site permit coverage: <input style="width:95%;" type="text" value="Date"/>	Discharge Point(s):(*) <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;"></th> <th style="width:15%;">Latitude</th> <th style="width:15%;">Longitude</th> <th style="width:10%;"></th> <th style="width:10%;"></th> </tr> </thead> <tbody> <tr> <td style="text-align:center;">+</td> <td style="height: 100px;"></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Latitude	Longitude			+				
	Latitude	Longitude									
+											

**SECTION VI -- WILL THE PROJECT REQUIRE CONSTRUCTION ACTIVITIES IN A WATER BODY OR THE RIPARIAN ZONE?**

Will the project require construction activities in a water body or the riparian zone?:(*)	<input style="width:95%;" type="text" value="Yes"/>
If Yes, describe scope of activity: (✓)	<input style="width:95%;" type="text" value="Culvert extension/replacements"/>
Is a Clean Water Act 404 permit required?:(*)	<input style="width:95%;" type="text" value="Yes"/>
Is a Clean Water Act 401 Water Quality Certification required?:(*)	<input style="width:95%;" type="text" value="Yes"/>

SECTION VII -- NOI PREPARER INFORMATION			
First Name:(*) Gavin	M.I.: MI	Last Name:(*) Hodges	Company Name:(*) Kentucky Transportation Cabinet District 3
Mailing Address:(*) 900 Morgantown Road	City:(*) Bowling Green	State:(*) Kentucky	Zip:(*) 42101
eMail Address:(*) gavin.hodges@ky.gov	Business Phone:(*) (502) 764-2070	Alternate Phone: Phone	
SECTION VIII -- ATTACHMENTS			
Facility Location Map:(*)	<input type="button" value="Upload file"/>		
Supplemental Information:	<input type="button" value="Upload file"/>		
SECTION IX -- CERTIFICATION			
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.			
Signature:(*) Signature	Title:(*) Title		
First Name:(*) Gavin	M.I.: MI	Last Name:(*) Hodges	
eMail Address:(*) eMail Address	Business Phone:(*) Phone	Alternate Phone: Phone	Signature Date:(*) Date
<input type="button" value="Click to Save Values for Future Retrieval"/> <input type="button" value="Click to Submit to EEC"/>			

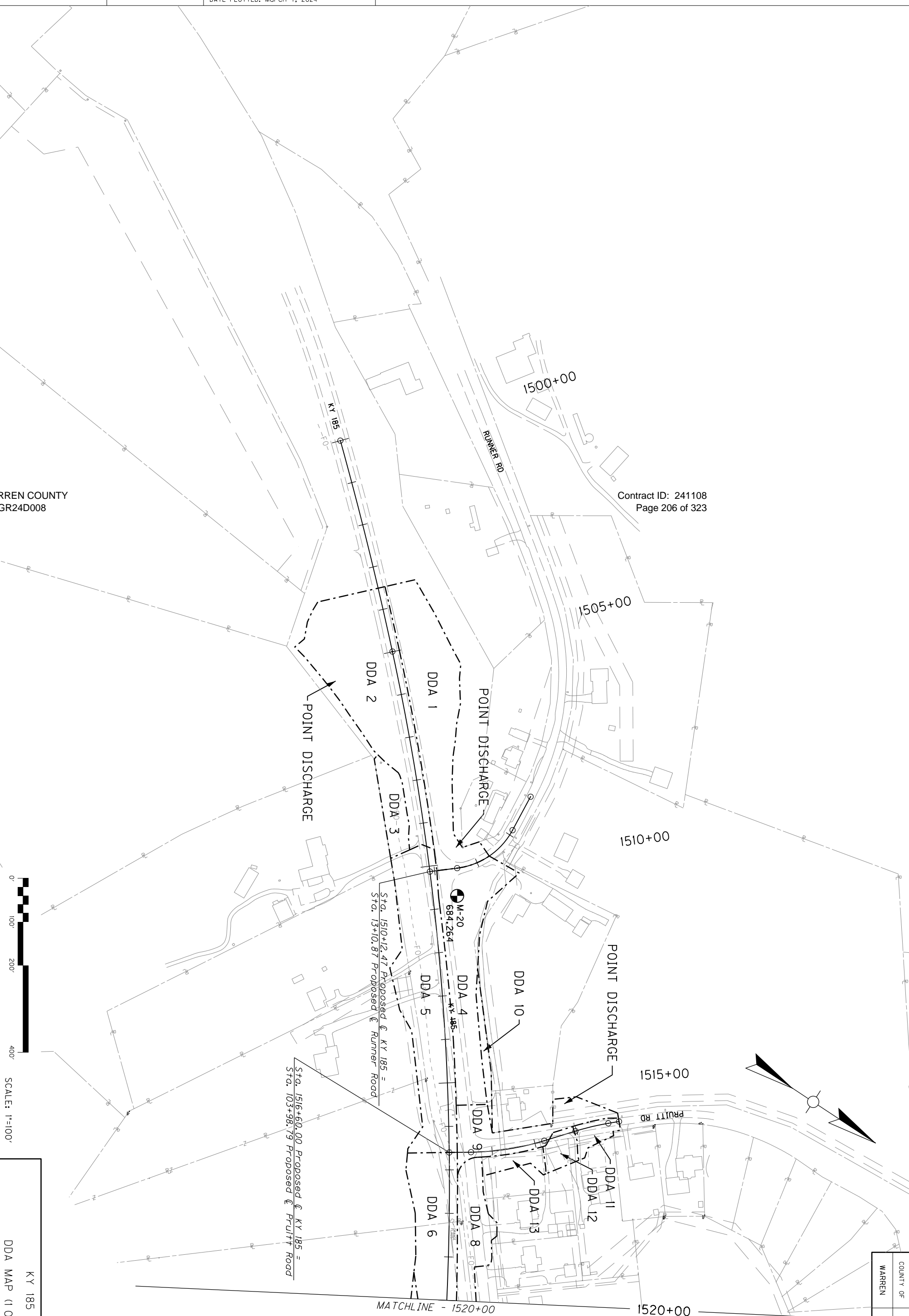
WARREN COUNTY  
114GR24D008

Contract ID: 241108  
Page 206 of 323



SCALE: 1"=100'

K Y 185  
DDA MAP (1 OF 4)



MATCHLINE - 1520+00

COUNTY OF	ITEM NO.	SHEET NO.
WARREN	3-110.30	DDA 1



Contract ID: 247108  
Page 207 of 323

WARREN COUNTY  
114GR24D008



SCALE: 1"=100'

KY 185  
DDA MAP (2 OF 4)

COUNTY OF	ITEM NO.	SHEET NO.
WARREN	3-110.30	DDA 2



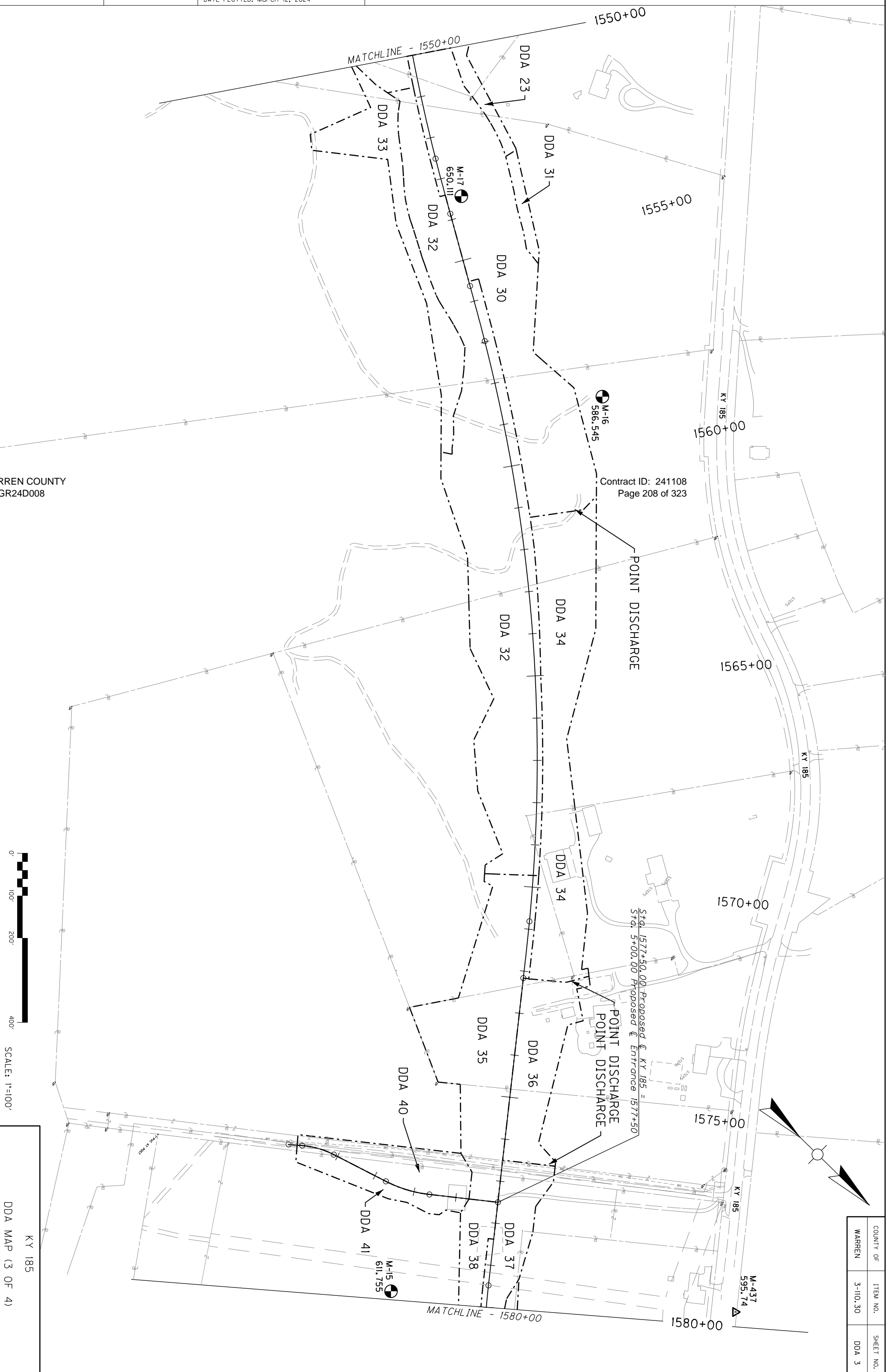
WARREN COUNTY  
114GR24D008

Contract ID: 241108  
Page 208 of 323

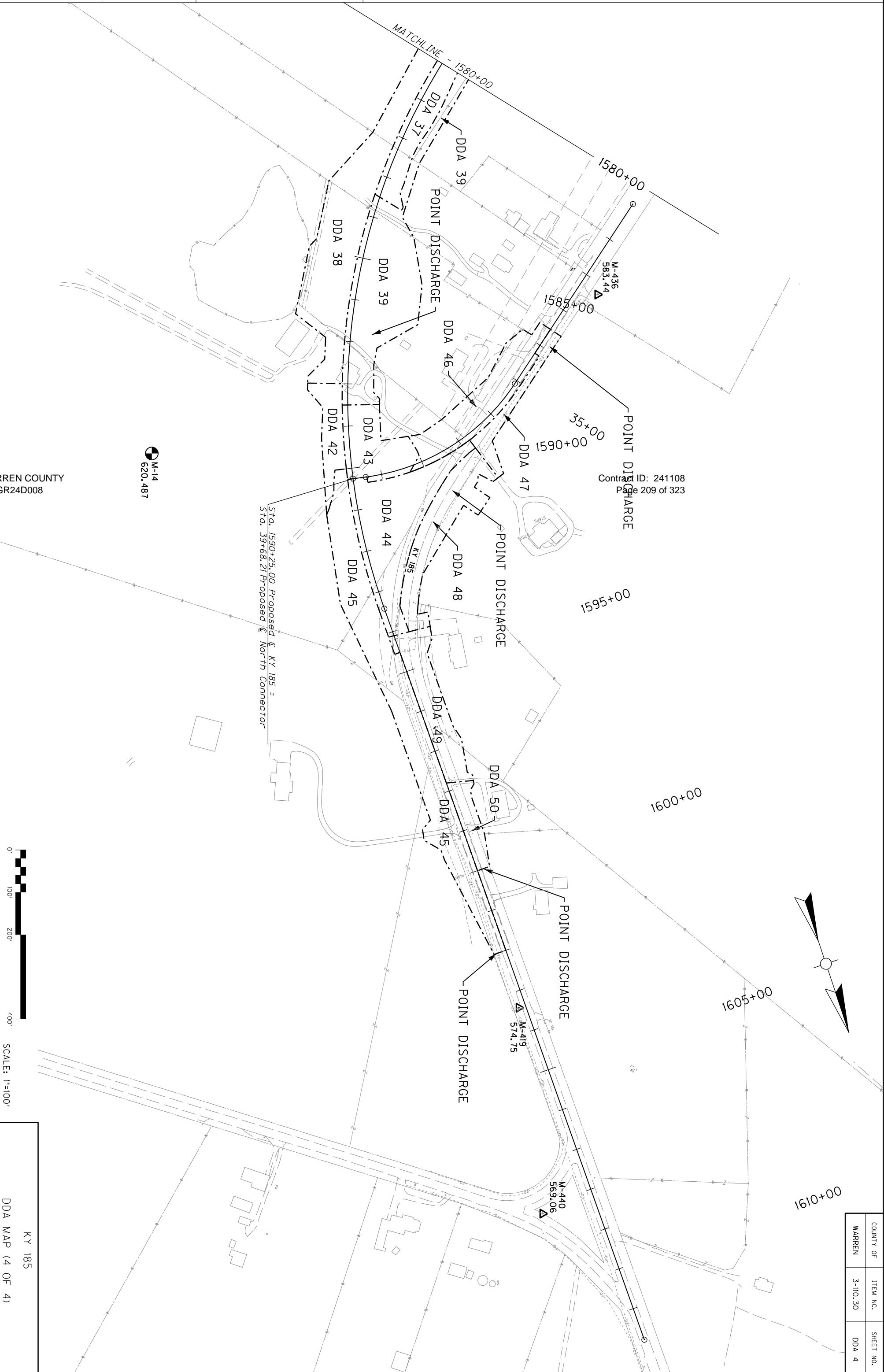


SCALE: 1"=100'

KY 185  
DDA MAP (3 OF 4)



COUNTY OF	ITEM NO.	SHEET NO.
WARREN	3-110.30	DDA 3



Contract ID: 241108  
Page 209 of 323

Sta. 1590+25.00 Proposed @ KY 185 =  
Sta. 39+68.21 Proposed @ North Connector

M-14  
620.487

WARREN COUNTY  
114GR24D008



SCALE: 1"=100'

KY 185  
DDA MAP (4 OF 4)

COUNTY OF	ITEM NO.	SHEET NO.
WARREN	3-110.30	DDA 4

GENERAL CONDITIONS:

1. Discharges of dredged or fill material into "waters of the U.S." must be minimized or avoided to the maximum extent practicable at the project site (i.e. on-site). In determining the minimal impact threshold, the Districts will consider the direct, secondary, and cumulative impacts of the fill or work and any mitigation measures.
2. The permittee shall provide a mitigation/monitoring plan for impacts resulting from the placement of fill into "waters of the U.S." in excess of 300 linear feet of intermittent or perennial stream; the filling of greater than 0.10 acre (4,356 sq. feet) of waters of the U.S; or work causing more than minimal effects, to compensate for impacts to the "waters of the U.S." These impact thresholds are applied for each crossing. When mitigation is required, the permittee will develop the mitigation site concurrently with, or in advance of, the site construction unless the Corps determines on a project specific basis that it is not practical to do so. This will ensure that aquatic functions are not lost for long periods of time (e.g. temporal loss) which could adversely affect water quality and wildlife. The requirement for conservation easements or deed restrictions will be determined on a project specific basis.
3. The permittee shall ensure that sedimentation and soil erosion control measures are in place prior to commencement of construction activities. These measures will remain in place and be properly maintained throughout construction. Sedimentation and soil control measures shall include the installation of straw bale barriers, silt fencing and/or other approved methods to control sedimentation and erosion. Sedimentation and erosion controls will not be placed in "waters of the U.S." except if specifically approved by the District.
4. The permittee shall ensure that areas disturbed by any construction activity, including channel and stream banks, are immediately stabilized and revegetated with a combination of non-invasive plants (grasses, legumes and shrubs) which are compatible with the affected area and will not compete with native vegetation.
5. The permittee shall ensure that no in-stream construction activity is performed during periods of high stream flow or during the fish spawning season (April 1 through June 30) without first contacting the Kentucky Department of Fish and Wildlife Resources (KDFWR) for their expertise on impacts to the fishery resource. Additionally, the discharge of dredged and/or fill material in known waterfowl breeding and wintering areas must be avoided to the maximum extent practicable.
6. The permittee will ensure that the activity authorized will not disrupt movement of those aquatic species indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's specific purpose is to impound water.
7. The permittee shall ensure that all construction equipment is refueled and maintained on an upland site away from existing streams, drainageways and wetland areas. Heavy equipment working in wetlands must be placed on mats or other measures must be taken to minimize soil disturbance.

8. The permittee must comply with any case specific special conditions added by the Corps or by the State Section 401 Water Quality Certification (WQC). The conditions imposed in the State Section 401 WQC are also conditions of this LOP.

9. The permittee shall ensure that no activity authorized by the LOP may cause more than a minimal adverse effect on navigation.

10. The permittee shall ensure proper maintenance of any structure or fill authorized by the LOP, in good condition and in conformance with the terms and conditions of the LOP, including maintenance to ensure public safety. The permittee is not relieved of this requirement if the permitted activity is abandoned, although the permittee may make a good faith transfer to a third party. Should the permittee wish to cease to maintain the authorized activity or desire to abandon it without a good faith transfer, the permittee must obtain a modification to the LOP from the Corps, which may require restoration of the area.

11. The permittee shall not perform any work within any Wild and Scenic Rivers or in any river officially designated as a "study river" for possible inclusion in the system, unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity authorized by the LOP will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal Land Management agency in the area (e.g. U.S. Forest Service, Bureau of Land Management, the National Parks Service, or the U.S. Fish and Wildlife Service).

12. The permittee shall not perform any work under the LOP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which is likely to destroy or adversely modify the critical habitat of such species. The permittee shall notify the Corps and coordinate the proposed action with the USFWS to determine if any listed species or critical habitat might be affected and/or adversely modified by the proposed work. No activity is authorized under the LOP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed. At the direction of the Corps, the permittee shall complete the necessary consultation with the USFWS, satisfying the requirements of Section 7(a)(2) of the Endangered Species Act. The permittee shall not begin work until notified by the District Engineer that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized. Authorization of an activity under the LOP does not authorize the "take" of a threatened or endangered species as defined under the Federal Endangered Species Act. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. Fish and Wildlife Service, both lethal and non-lethal "takes" of protected species are in violation of the Endangered Species Act.

Obligations under Section 7 of the Act must be reconsidered by the Corps Districts if (1) new information reveals impacts of the proposed action may affect listed species or critical habitat in a manner not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during consultation, or (3) new species are listed or critical habitat designated that might be affected

by the proposed action.

13. The permittee shall not perform any activity under the LOP which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places until the District Engineer has complied with the provisions of 33 CFR Part 325, Appendix C. The permittee must notify the District Engineer if the activity authorized by the LOP may affect any historic properties listed, determined to be eligible or which the permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin construction until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the Kentucky Heritage Council.

If the permittee discovers any previously unknown historic or archaeological remains while accomplishing the activity authorized by the LOP, work must be immediately stopped and this office immediately notified regarding the discovery. The District will initiate the Federal, Tribal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

14. The permittee shall not perform any work under the LOP where the discharge of dredged and/or fill material will occur in the proximity of a public water supply intake.

15. No activity, including structures or work in "waters of the U.S." or discharges of dredged or fill material may consist of unsuitable materials (e.g. trash, debris, car bodies, asphalt, etc.) and that materials used for construction or discharge must be free from toxic pollutants in toxic amounts.

16. The permittee shall, to the maximum extent practicable, design the project to maintain pre-construction downstream flow conditions. Furthermore, the work must not permanently restrict or impede the passage of normal or expected high flows and the structure or discharge of fill must withstand expected high flows. The project must provide, to the maximum extent practicable, for retaining excess flows from the site and for establishing flow rates from the site similar to pre-construction conditions.

17. The permittee shall ensure that all temporary fills, authorized under the LOP, be removed in their entirety and the affected areas returned to pre-construction elevation.

18. Representatives from the Corps of Engineers and/or the State of Kentucky may inspect any authorized activity or mitigation site at any time deemed necessary to ensure compliance with the terms and conditions of the LOP, Section 401 WQC, and applicable laws.

19. All work authorized by this LOP must be completed within five years after the date of the Corps authorization letter. If you find you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least three months before the expiration date.



20. The permittee, after completion of work under the LOP, shall submit a signed certification letter regarding the completed work and required mitigation, if applicable. The certification letter will include a statement that the work was done in accordance with the LOP authorization including compliance with all general and special conditions and completion of mitigation work.

21. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished with the terms and conditions of the LOP.

22. For Section 10 waters, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

DDA	Lat	Long	Receiving Water Name
DDA1	37.09218	-86.445	Indian Creek
DDA2	37.09125	-86.4445	Indian Creek
DDA3	37.09207	-86.4441	Indian Creek
DDA4	37.09294	-86.4437	Indian Creek
DDA5	37.09261	-86.4436	Indian Creek
DDA6	37.09379	-86.4416	Indian Creek
DDA7	37.09456	-86.4397	Indian Creek
DDA8	37.09402	-86.4418	Indian Creek
DDA9	37.09427	-86.4427	Indian Creek
DDA10	37.09377	-86.4425	Indian Creek
DDA11	37.09449	-86.4425	Indian Creek
DDA12	37.0944	-86.4423	Indian Creek
DDA13	37.09428	-86.4422	Indian Creek
DDA14	37.09504	-86.4389	Indian Creek
DDA15	37.09655	-86.4393	Indian Creek
DDA16	37.0958	-86.438	Indian Creek
DDA17	37.09679	-86.4392	Indian Creek
DDA18	37.09709	-86.4393	Indian Creek
DDA19	37.09689	-86.4393	Indian Creek
DDA20	37.09585	-86.4358	Indian Creek
DDA21	37.09647	-86.4363	Indian Creek
DDA22	37.09615	-86.4371	Indian Creek
DDA23	37.09899	-86.4334	Indian Creek
DDA24	37.09612	-86.4355	Indian Creek
DDA25	37.0968	-86.4349	Indian Creek
DDA26	37.09758	-86.4367	Indian Creek
DDA27	37.09773	-86.437	Indian Creek
DDA28	37.09559	-86.4351	Indian Creek
DDA29	37.0987	-86.4324	Indian Creek
DDA30	37.10195	-86.431	Indian Creek
DDA31	37.10032	-86.4325	Indian Creek
DDA32	37.10113	-86.4306	Indian Creek
DDA33	37.1002	-86.4314	Indian Creek
DDA34	37.10237	-86.4307	Indian Creek
DDA35	37.10385	-86.4276	Indian Creek
DDA36	37.10419	-86.4284	Indian Creek
DDA37	37.10487	-86.4271	Indian Creek
DDA38	37.10477	-86.4264	Indian Creek
DDA39	37.10652	-86.4252	Indian Creek
DDA40	37.1036	-86.4258	Indian Creek
DDA41	37.10365	-86.4257	Indian Creek
DDA42	37.10726	-86.4241	Indian Creek
DDA43	37.10756	-86.4246	Indian Creek
DDA44	37.10783	-86.4248	Indian Creek
DDA45	37.11085	-86.4241	Indian Creek
DDA46	37.10712	-86.4259	Indian Creek

DDA47	37.10723	-86.426	Indian Creek
DDA48	37.10799	-86.4251	Indian Creek
DDA49	37.10951	-86.4243	Indian Creek
DDA50	37.1103	-86.4242	Indian Creek

KyTC BMP Plan for Project CID ## - #####



**Kentucky Transportation Cabinet**

**Highway District (3)**

**And**

\_\_\_\_\_ **(2), Construction**

**Kentucky Pollutant Discharge Elimination System  
Permit KYR10  
Best Management Practices (BMP) plan**

**Groundwater protection plan**

**For Highway Construction Activities**

**For**

**Improve KY 185 from 0.24 miles south of Pruitt  
Road to 0.16 miles south of KY 1320**

**Project: CID ## - #####**

## KyTC BMP Plan for Project CID ## - #####

### Project information

Note – (1) = Design (2) = Construction (3) = Contractor

1. Owner – Kentucky Transportation Cabinet, District 3
2. Resident Engineer: (2)
3. Contractor name: (2)  
Address: (2)  
  
Phone number: (2)  
Contact: (2)  
Contractors agent responsible for compliance with the KPDES permit requirements (3):
4. Project Control Number (2)
5. Route (Address) KY 185
6. Latitude/Longitude (project mid-point) Lat: 37° 6' 10"/ Long: -86° 25' 54",
7. County (project mid-point) Warren
8. Project start date (date work will begin): (2)
9. Projected completion date: (2)

## KyTC BMP Plan for Project CID ## - #####

### A. Site description:

1. Nature of Construction Activity (from letting project description): Improve KY 185 from 0.24 miles south of Pruitt Road to 0.16 miles south of KY 1320.
2. Order of major soil disturbing activities (2) and (3)
3. Projected volume of material to be moved: 428,209 CUYD
4. Estimate of total project area (acres): 182.32 acres
5. Estimate of area to be disturbed (acres): 182.32 acres
6. Post construction runoff coefficient will be included in the project drainage folder. Persons needing information pertaining to the runoff coefficient will contact the resident engineer to request this information.
7. Data describing existing soil condition: The area is known for its rolling terrain, and red clay soils, and Karst behavior. There are numerous karst features in the project corridor. & (2)
8. Data describing existing discharge water quality (if any) & (2)
9. Receiving water name: Indian Creek
10. TMDLs and Pollutants of Concern in Receiving Waters: N/A
11. Site map – Project layout sheet plus the erosion control sheets in the project plans that depict Disturbed Drainage Areas (DDAs) and related information. These sheets depict the existing project conditions with areas delineated by DDA (drainage area bounded by watershed breaks and right of way limits), the storm water discharge locations (either as a point discharge or as overland flow) and the areas that drain to each discharge point. These plans define the limits of areas to be disturbed and the location of control measures. Controls will be either site specific as designated by the designer or will be annotated by the contractor and resident engineer before disturbance commences. The project layout sheet shows the surface waters and wetlands.
12. Potential sources of pollutants:



## KyTC BMP Plan for Project CID ## - #####

The primary source of pollutants is solids that are mobilized during storm events. Other sources of pollutants include oil/fuel/grease from servicing and operating construction equipment, concrete washout water, sanitary wastes and trash/debris. (3)

### **B. Sediment and Erosion Control Measures:**

1. Plans for highway construction projects will include erosion control sheets that depict Disturbed Drainage Areas (DDAs) and related information. These plan sheets will show the existing project conditions with areas delineated by DDA within the right of way limits, the discharge points and the areas that drain to each discharge point. Project managers and designers will analyze the DDAs and identify Best Management Practices (BMPs) that are site specific. The balance of the BMPs for the project will be listed in the bid documents for selection and use by the contractor on the project with approval by the resident engineer.

Projects that do not have DDAs annotated on the erosion control sheets will employ the same concepts for development and managing BMP plans.

2. Following award of the contract, the contractor and resident engineer will annotate the erosion control sheets showing location and type of BMPs for each of the DDAs that will be disturbed at the outset of the project. This annotation will be accompanied by an order of work that reflects the order or sequence of major soil moving activities. The remaining DDAs are to be designated as "Do Not Disturb" until the contractor and resident engineer prepare the plan for BMPs to be employed. The initial BMP's shall be for the first phase (generally Clearing and Grubbing) and shall be modified as needed as the project changes phases. The BMP Plan will be modified to reflect disturbance in additional DDA's as the work progresses. All DDA's will have adequate BMP's in place before being disturbed.
3. As DDAs are prepared for construction, the following will be addressed for the project as a whole or for each DDA as appropriate:
  - Construction Access – This is the first land-disturbing activity. As soon as construction begins, bare areas will be stabilized with gravel and temporary mulch and/or vegetation.
  - At the beginning of the project, all DDAs for the project will be inspected for areas that are a source of storm water pollutants.

## KyTC BMP Plan for Project CID ## - #####

Areas that are a source of pollutants will receive appropriate cover or BMPs to arrest the introduction of pollutants into storm water. Areas that have not been opened by the contractor will be inspected periodically (once per month) to determine if there is a need to employ BMPs to keep pollutants from entering storm water.

- Clearing and Grubbing – The following BMP's will be considered and used where appropriate.
  - Leaving areas undisturbed when possible.
  - Silt basins to provide silt volume for large areas.
  - Silt Traps Type A for small areas.
  - Silt Traps Type C in front of existing and drop inlets which are to be saved
  - Diversion ditches to catch sheet runoff and carry it to basins or traps or to divert it around areas to be disturbed.
  - Brush and/or other barriers to slow and/or divert runoff.
  - Silt fences to catch sheet runoff on short slopes. For longer slopes, multiple rows of silt fence may be considered.
  - Temporary Mulch for areas which are not feasible for the fore mentioned types of protections.
  - Non-standard or innovative methods.
- Cut & Fill and placement of drainage structures - The BMP Plan will be modified to show additional BMP's such as:
  - Silt Traps Type B in ditches and/or drainways as they are completed
  - Silt Traps Type C in front of pipes after they are placed
  - Channel Lining
  - Erosion Control Blanket
  - Temporary mulch and/or seeding for areas where construction activities will be ceased for 21 days or more.
  - Non-standard or innovative methods
- Profile and X-Section in place – The BMP Plan will be modified to show elimination of BMP's which had to be removed and the addition of new BMP's as the roadway was shaped. Probably changes include:
  - Silt Trap Type A, Brush and/or other barriers, Temporary Mulch, and any other BMP which had to be removed for final grading to take place.
  - Additional Silt Traps Type B and Type C to be placed as final drainage patterns are put in place.
  - Additional Channel Lining and/or Erosion Control Blanket.
  - Temporary Mulch for areas where Permanent Seeding and Protection cannot be done within 21 days.
  - Special BMP's such as Karst Policy

## KyTC BMP Plan for Project CID ## - #####

- Finish Work (Paving, Seeding, Protect, etc.) – A final BMP Plan will result from modifications during this phase of construction. Probably changes include:
  - Removal of Silt Traps Type B from ditches and drainways if they are protected with other BMP's which are sufficient to control erosion, i.e. Erosion Control Blanket or Permanent Seeding and Protection on moderate grades.
  - Permanent Seeding and Protection
  - Placing Sod
  - Planting trees and/or shrubs where they are included in the project
- BMP's including Storm Water Management Devices such as velocity dissipation devices and Karst policy BMP's to be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed are : (2) and (3)

### **C. Other Control Measures**

1. No solid materials, including building materials, shall be discharged to waters of the commonwealth, except as authorized by a Section 404 permit.
2. Waste Materials

All waste materials that may leach pollutants (paint and paint containers, caulk tubes, oil/grease containers, liquids of any kind, soluble materials, etc.) will be collected and stored in appropriate covered waste containers. Waste containers shall be removed from the project site on a sufficiently frequent basis as to not allow wastes to become a source of pollution. All personnel will be instructed regarding the correct procedure for waste disposal. Wastes will be disposed in accordance with appropriate regulations. Notices stating these practices will be posted in the office.

3. Hazardous Waste

All hazardous waste materials will be managed and disposed of in the manner specified by local or state regulation. The contractor shall notify the Section Engineer if there any hazardous wastes being generated at the project site and how these wastes are being managed. Site personnel will be instructed with regard to proper storage and handling of hazardous wastes when required. The Transportation Cabinet will file for generator, registration when appropriate, with the Division of Waste Management and advise the contractor regarding waste management requirements.

## KyTC BMP Plan for Project CID ## - #####

### 4. Spill Prevention

The following material management practices will be used to reduce the risk of spills or other exposure of materials and substances to the weather and/or runoff.

#### ➤ **Good Housekeeping:**

The following good housekeeping practices will be followed onsite during the construction project.

- An effort will be made to store only enough product required to do the job
- All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure
- Products will be kept in their original containers with the original manufacturer's label
- Substances will not be mixed with one another unless recommended by the manufacturer
- Whenever possible, all of the product will be used up before disposing of the container
- Manufacturers' recommendations for proper use and disposal will be followed
- The site contractor will inspect daily to ensure proper use and disposal of materials onsite

#### ➤ **Hazardous Products:**

These practices will be used to reduce the risks associated with any and all hazardous materials.

- Products will be kept in original containers unless they are not resealable
- Original labels and material safety data sheets (MSDS) will be reviewed and retained
- Contractor will follow procedures recommended by the manufacturer when handling hazardous materials
- If surplus product must be disposed of, manufacturers' or state/local recommended methods for proper disposal will be followed

**The following product-specific practices will be followed onsite:**

#### ➤ **Petroleum Products:**

## KyTC BMP Plan for Project CID ## - #####

Vehicles and equipment that are fueled and maintained on site will be monitored for leaks, and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products onsite will be stored in tightly sealed containers, which are clearly labeled and will be protected from exposure to weather.

The contractor shall prepare an Oil Pollution Spill Prevention Control and Countermeasure plan when the project that involves the storage of petroleum products in 55 gallon or larger containers with a total combined storage capacity of 1,320 gallons. This is a requirement of 40 CFR 112.

This project (will / will not) (3) have over 1,320 gallons of petroleum products with a total capacity, sum of all containers 55 gallon capacity and larger.

### ➤ **Fertilizers:**

Fertilizers will be applied at rates prescribed by the contract, standard specifications or as directed by the resident engineer. Once applied, fertilizer will be covered with mulch or blankets or worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

### ➤ **Paints:**

All containers will be tightly sealed and stored indoors or under roof when not being used. Excess paint or paint wash water will not be discharged to the drainage or storm sewer system but will be properly disposed of according to manufacturers' instructions or state and local regulations.

### ➤ **Concrete Truck Washout:**

Concrete truck mixers and chutes will not be washed on pavement, near storm drain inlets, or within 75 feet of any ditch, stream, wetland, lake, or sinkhole. Where possible, excess concrete and wash water will be discharged to areas prepared for pouring new concrete, flat areas to be paved that are away from ditches or drainage system features, or other locations that will not drain off site. Where this approach is not possible, a shallow earthen wash basin will be excavated away from ditches to receive the wash water

### ➤ **Spill Control Practices**

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

## KyTC BMP Plan for Project CID ## - #####

- Manufacturers' recommended methods for spill cleanup will be clearly posted. All personnel will be made aware of procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area. Equipment and materials will include as appropriate, brooms, dust pans, mops, rags, gloves, oil absorbents, sand, sawdust, and plastic and metal trash containers.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate state/local agency as required by KRS 224 and applicable federal law.
- The spill prevention plan will be adjusted as needed to prevent spills from reoccurring and improve spill response and cleanup.
- Spills of products will be cleaned up promptly. Wastes from spill clean up will be disposed in accordance with appropriate regulations.

### **D. Other State and Local Plans**

This BMP plan shall include any requirements specified in sediment and erosion control plans, storm water management plans or permits that have been approved by other state or local officials. Upon submittal of the NOI, other requirements for surface water protection are incorporated by reference into and are enforceable under this permit (even if they are not specifically included in this BMP plan). This provision does not apply to master or comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit issued for the construction site by state or local officials. The project falls within the City of Bowling Green, which is a MS4 community. A copy of the eNOI should be submitted to the MS4 Coordinator for the City of Bowling Green at the same time it is submitted to the KY Division of Water. Contact info is: Matt Powell, PH: (270) 393-3000, email Matt.Powell@bgky.org.



## KyTC BMP Plan for Project CID ## - #####

### **E. Maintenance**

1. The BMP plan shall include a clear description of the maintenance procedures necessary to keep the control measures in good and effective operating condition.
- Maintenance of BMPs during construction shall be a result of weekly and post rain event inspections with action being taken by the contractor to correct deficiencies.
  - Post Construction maintenance will be a function of normal highway maintenance operations. Following final project acceptance by the cabinet, district highway crews will be responsible for identification and correction of deficiencies regarding ground cover and cleaning of storm water BMPs. The project manager shall identify any BMPs that will be for the purpose of post construction storm water management with specific guidance for any non-routine maintenance. There are none.

### **F. Inspections**

Inspection and maintenance practices that will be used to maintain erosion and sediment controls:

- All erosion prevention and sediment control measures will be inspected at least once each week and following any rain of one-half inch or more.
- Inspections will be conducted by individuals that have successfully completed the KEPSC-RI course as required by Section 213.02.02 of the Standard Specifications for Road and Bridge Construction, current edition.
- Inspection reports will be written, signed, dated, and kept on file.
- Areas at final grade will be seeded and mulched within 14 days.
- Areas that are not at final grade where construction has ceased for a period of 21 days or longer and soil stock piles shall receive temporary mulch no later than 14 days from the last construction activity in that area.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of being reported.
- Built-up sediment will be removed from behind the silt fence before it has reached halfway up the height of the fence.
- Silt fences will be inspected for bypassing, overtopping, undercutting, depth of sediment, tears, and to ensure attachment to secure posts.

## KyTC BMP Plan for Project CID ## - #####

- Sediment basins will be inspected for depth of sediment, and built-up sediment will be removed when it reaches 50 percent of the design capacity and at the end of the job.
- Diversion dikes and berms will be inspected and any breaches promptly repaired. Areas that are eroding or scouring will be repaired and re-seeded / mulched as needed.
- Temporary and permanent seeding and mulching will be inspected for bare spots, washouts, and healthy growth. Bare or eroded areas will be repaired as needed.
- All material storage and equipment servicing areas that involve the management of bulk liquids, fuels, and bulk solids will be inspected weekly for conditions that represent a release or possible release of pollutants to the environment.

### **G. Non – Storm Water discharges**

It is expected that non-storm water discharges may occur from the site during the construction period. Examples of non-storm water discharges include:

- Water from water line flushings.
- Water form cleaning concrete trucks and equipment.
- Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).
- Uncontaminated groundwater and rain water (from dewatering during excavation).

All non-storm water discharges will be directed to the sediment basin or to a filter fence enclosure in a flat vegetated infiltration area or be filtered via another approved commercial product.

### **H. Groundwater Protection Plan (3)**

This plan serves as the groundwater protection plan as required by 401 KAR 5:037.

- Contractors statement: (3)

The following activities, as enumerated by 401 KAR 5:037 Section 2 that require the preparation and implementation of a groundwater protection plan, will or may be may be conducted as part of this construction project:

### KyTC BMP Plan for Project CID ## - #####

\_\_\_\_\_ 2. (e) land treatment or land disposal of a pollutant;

\_\_\_\_\_ 2. (f) Storing, ..., or related handling of hazardous waste, solid waste or special waste, ..., in tanks, drums, or other containers, or in piles, (This does not include wastes managed in a container placed for collection and removal of municipal solid waste for disposal off site);

\_\_\_\_\_ 2. (g) .... Handling of materials in bulk quantities (equal or greater than 55 gallons or 100 pounds net dry weight transported held in an individual container) that, if released to the environment, would be a pollutant;

\_\_\_\_\_ 2. (j) Storing or related handling of road oils, dust suppressants, ....., at a central location;

\_\_\_\_\_ 2. (k) Application or related handling of road oils, dust suppressants or deicing materials, (does not include use of chloride-based deicing materials applied to roads or parking lots);

\_\_\_\_\_ 2. (m) Installation, construction, operation, or abandonment of wells, bore holes, or core holes, (this does not include bore holes for the purpose of explosive demolition);

Or, check the following only if there are no qualifying activities

\_\_\_\_\_ There are no activities for this project as listed in 401 KAR 5:037 Section 2 that require the preparation and implementation of a groundwater protection plan.

The contractor is responsible for the preparation of a plan that addresses the

401 KAR 5:037 Section 3. (3) Elements of site specific groundwater protection plan:

- (a) General information about this project is covered in the Project information;
- (b) Activities that require a groundwater protection plan have been identified above;
- (c) Practices that will protect groundwater from pollution are addressed in section C. Other control measures.
- (d) Implementation schedule – all practices required to prevent pollution of groundwater are to be in place prior to conducting the activity;
- (e) Training is required as a part of the ground water protection plan. All employees of the contractor, sub-contractor and resident engineer personnel will be trained to understand the nature and requirements of this plan as they pertain to their job

### KyTC BMP Plan for Project CID ## - #####

function(s). Training will be accomplished within one week of employment and annually thereafter. A record of training will be maintained by the contractor with a copy provide to the resident engineer.

- (f) Areas of the project and groundwater plan activities will be inspected as part of the weekly sediment and erosion control inspections
- (g) Certification (see signature page.)



KyTC BMP Plan for Project CID ## - #####

### Sub-Contractor Certification

The following sub-contractor shall be made aware of the BMP plan and responsible for implementation of BMPs identified in this plan as follows:

Subcontractor

Name:  
Address:  
Address:

Phone:

The part of BMP plan this subcontractor is responsible to implement is:

I certify under penalty of law that I understand the terms and conditions of the general Kentucky Pollutant Discharge Elimination System permit that authorizes the storm water discharges, the BMP plan that has been developed to manage the quality of water to be discharged as a result of storm events associated with the construction site activity and management of non-storm water pollutant sources identified as part of this certification.

Signed \_\_\_\_\_ title \_\_\_\_\_, \_\_\_\_\_  
Typed or printed name<sup>1</sup> signature

1. Sub Contractor Note: to be signed by a person who is the owner, a responsible corporate officer, a general partner or the proprietor or a person designated to have the authority to sign reports by such a person in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601. Reference the Project Control Number (PCN) and KPDES number when one has been issued.



3KYTC BMP Plan for Project Item 3-9024.00



## **Kentucky Transportation Cabinet**

### **Highway District 3**

**And**

\_\_\_\_\_ **(2), Construction**

**Kentucky Pollutant Discharge Elimination System  
Permit KYR10  
Best Management Practices (BMP) plan**

**Groundwater protection plan**

**For Highway Construction Activities**

**For**

**Highway Safety Improvement Project on KY 185 in  
Warren County**

**Project: 3-9024.00**

## 3KYTC BMP Plan for Project Item 3-9024.00

### Project information

Note – (1) = Design (2) = Construction (3) = Contractor

1. Owner – Kentucky Transportation Cabinet, District 3
2. Resident Engineer: (2)
3. Contractor name: (2)  
Address: (2)  
  
Phone number: (2)  
Contact: (2)  
Contractor's agent responsible for compliance with the KPDES permit requirements (3):
4. Project Control Number: (2)
5. Route (Address): KY 185
6. Latitude/Longitude (project mid-point): 37° 07' 02", -86° 25' 23"
7. County (project mid-point): Warren
8. Project start date (date work will begin): (2)
9. Projected completion date: (2)

## 3KYTC BMP Plan for Project Item 3-9024.00

### A. Site description:

1. Nature of Construction Activity (from letting project description): Roadway Rehab
2. Order of major soil disturbing activities: (2) and (3)
3. Projected volume of material to be moved: *This project does not involve significant cut and fill.*
4. Estimate of total project area (acres): 8.52
5. Estimate of area to be disturbed (acres): 5.1
6. Post construction runoff coefficient will be included in the project drainage folder. Persons needing information pertaining to the runoff coefficient will contact the resident engineer to request this information.
7. Data describing existing soil condition: (1) & (2)
8. Data describing existing discharge water quality (if any): (1) & (2)
9. Receiving water name: Indian Creek
10. TMDLs and Pollutants of Concern in Receiving Waters: *No TDML's were involved on this project.*
11. Site map – Project layout sheet plus the erosion control sheets in the project plans that depict Disturbed Drainage Areas (DDAs) and related information. These sheets depict the existing project conditions with areas delineated by DDA (drainage area bounded by watershed breaks and right of way limits), the storm water discharge locations (either as a point discharge or as overland flow) and the areas that drain to each discharge point. These plans define the limits of areas to be disturbed and the location of control measures. Controls will be either site specific as designated by the designer or will be annotated by the contractor and resident engineer before disturbance commences. The project layout sheet shows the surface waters and wetlands.
12. Potential sources of pollutants:  
The primary source of pollutants is solids that are mobilized during storm events. Other sources of pollutants include oil/fuel/grease from servicing and operating construction equipment, concrete washout water, sanitary wastes and trash/debris. (3)

## 3KYTC BMP Plan for Project Item 3-9024.00

### **B. Sediment and Erosion Control Measures:**

1. Plans for highway construction projects will include erosion control sheets that depict Disturbed Drainage Areas (DDAs) and related information. These plan sheets will show the existing project conditions with areas delineated by DDA within the right of way limits, the discharge points and the areas that drain to each discharge point. Project managers and designers will analyze the DDAs and identify Best Management Practices (BMPs) that are site specific. The balance of the BMPs for the project will be listed in the bid documents for selection and use by the contractor on the project with approval by the resident engineer.

Projects that do not have DDAs annotated on the erosion control sheets will employ the same concepts for development and managing BMP plans.

2. Following award of the contract, the contractor and resident engineer will annotate the erosion control sheets showing location and type of BMPs for each of the DDAs that will be disturbed at the outset of the project. This annotation will be accompanied by an order of work that reflects the order or sequence of major soil moving activities. The remaining DDAs are to be designated as "Do Not Disturb" until the contractor and resident engineer prepare the plan for BMPs to be employed. The initial BMP's shall be for the first phase (generally Clearing and Grubbing) and shall be modified as needed as the project changes phases. The BMP Plan will be modified to reflect disturbance in additional DDA's as the work progresses. All DDA's will have adequate BMP's in place before being disturbed.
3. As DDAs are prepared for construction, the following will be addressed for the project as a whole or for each DDA as appropriate:
  - Construction Access – This is the first land-disturbing activity. As soon as construction begins, bare areas will be stabilized with gravel and temporary mulch and/or vegetation.
  - At the beginning of the project, all DDAs for the project will be inspected for areas that are a source of storm water pollutants. Areas that are a source of pollutants will receive appropriate cover or BMPs to arrest the introduction of pollutants into storm water. Areas that have not been opened by the contractor will be inspected periodically (once per month) to determine if there is a need to employ BMPs to keep pollutants from entering storm water.
  - Clearing and Grubbing – The following BMP's will be considered and used where appropriate.
    - Leaving areas undisturbed when possible.
    - Silt basins to provide silt volume for large areas.
    - Silt Traps Type A for small areas.

### 3KYTC BMP Plan for Project Item 3-9024.00

- Silt Traps Type C in front of existing pipes and drop inlets which are to be saved
- Diversion ditches to catch sheet runoff and carry it to basins or traps or to divert it around areas to be disturbed.
- Brush and/or other barriers to slow and/or divert runoff.
- Silt fences to catch sheet runoff on short slopes. For longer slopes, multiple rows of silt fence may be considered.
- Temporary Mulch for areas which are not feasible for the fore mentioned types of protections.
- Non-standard or innovative methods.
- Cut & Fill and placement of drainage structures - The BMP Plan will be modified to show additional BMP's such as:
  - Silt Traps Type B in ditches and/or drainways as they are completed
  - Silt Traps Type C in front of pipes and drop inlets after they are placed
  - Channel Lining
  - Erosion Control Blanket
  - Temporary mulch and/or seeding for areas where construction activities will be ceased for 21 days or more.
  - Non-standard or innovative methods
- Profile and X-Section in place – The BMP Plan will be modified to show elimination of BMP's which had to be removed and the addition of new BMP's as the roadway was shaped. Probably changes include:
  - Silt Trap Type A, Brush and/or other barriers, Temporary Mulch, and any other BMP which had to be removed for final grading to take place.
  - Additional Silt Traps Type B and Type C to be placed as final drainage patterns are put in place.
  - Additional Channel Lining and/or Erosion Control Blanket.
  - Temporary Mulch for areas where Permanent Seeding and Protection cannot be done within 21 days.
  - Special BMP's such as Karst Policy
- Finish Work (Paving, Seeding, Protect, etc.) – A final BMP Plan will result from modifications during this phase of construction. Probable changes include:
  - Removal of Silt Traps Type B from ditches and drainways if they are protected with other BMP's which are sufficient to control erosion, i.e. Erosion Control Blanket or Permanent Seeding and Protection on moderate grades.
  - Permanent Seeding and Protection
  - Placing Sod

## 3KYTC BMP Plan for Project Item 3-9024.00

- Planting trees and/or shrubs where they are included in the project
- BMP's including Storm Water Management Devices such as velocity dissipation devices and Karst policy BMP's to be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed are: *This project does not include storm water BMPs or flow controls for post-construction use.*

### C. Other Control Measures

1. No solid materials, including building materials, shall be discharged to waters of the commonwealth, except as authorized by a Section 404 permit.

2. Waste Materials

All waste materials that may leach pollutants (paint and paint containers, caulk tubes, oil/grease containers, liquids of any kind, soluble materials, etc.) will be collected and stored in appropriate covered waste containers. Waste containers shall be removed from the project site on a sufficiently frequent basis as to not allow wastes to become a source of pollution. All personnel will be instructed regarding the correct procedure for waste disposal. Wastes will be disposed in accordance with appropriate regulations. Notices stating these practices will be posted in the office.

3. Hazardous Waste

All hazardous waste materials will be managed and disposed of in the manner specified by local or state regulation. The contractor shall notify the Section Engineer if there any hazardous wastes being generated at the project site and how these wastes are being managed. Site personnel will be instructed with regard to proper storage and handling of hazardous wastes when required. The Transportation Cabinet will file for generator, registration when appropriate, with the Division of Waste Management and advise the contractor regarding waste management requirements.

4. Spill Prevention

The following material management practices will be used to reduce the risk of spills or other exposure of materials and substances to the weather and/or runoff.

- **Good Housekeeping:**



### 3KYTC BMP Plan for Project Item 3-9024.00

The following good housekeeping practices will be followed onsite during the construction project.

- An effort will be made to store only enough product required to do the job
- All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure
- Products will be kept in their original containers with the original manufacturer's label
- Substances will not be mixed with one another unless recommended by the manufacturer
- Whenever possible, all of the product will be used up before disposing of the container
- Manufacturers' recommendations for proper use and disposal will be followed
- The site contractor will inspect daily to ensure proper use and disposal of materials onsite

➤ **Hazardous Products:**

These practices will be used to reduce the risks associated with any and all hazardous materials.

- Products will be kept in original containers unless they are not resealable
- Original labels and material safety data sheets (MSDS) will be reviewed and retained
- Contractor will follow procedures recommended by the manufacturer when handling hazardous materials
- If surplus product must be disposed of, manufacturers' or state/local recommended methods for proper disposal will be followed

**The following product-specific practices will be followed onsite:**

➤ **Petroleum Products:**

Vehicles and equipment that are fueled and maintained on site will be monitored for leaks, and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products onsite will be stored in tightly sealed containers, which are clearly labeled and will be protected from exposure to weather.

The contractor shall prepare an Oil Pollution Spill Prevention Control and Countermeasure plan when the project that involves the storage of petroleum

### 3KYTC BMP Plan for Project Item 3-9024.00

products in 55 gallon or larger containers with a total combined storage capacity of 1,320 gallons. This is a requirement of 40 CFR 112.

This project (will / will not) (3) have over 1,320 gallons of petroleum products with a total capacity, sum of all containers 55 gallon capacity and larger.

#### ➤ **Fertilizers:**

Fertilizers will be applied at rates prescribed by the contract, standard specifications or as directed by the resident engineer. Once applied, fertilizer will be covered with mulch or blankets or worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

#### ➤ **Paints:**

All containers will be tightly sealed and stored indoors or under roof when not being used. Excess paint or paint wash water will not be discharged to the drainage or storm sewer system but will be properly disposed of according to manufacturers' instructions or state and local regulations.

#### ➤ **Concrete Truck Washout:**

Concrete truck mixers and chutes will not be washed on pavement, near storm drain inlets, or within 75 feet of any ditch, stream, wetland, lake, or sinkhole. Where possible, excess concrete and wash water will be discharged to areas prepared for pouring new concrete, flat areas to be paved that are away from ditches or drainage system features, or other locations that will not drain off site. Where this approach is not possible, a shallow earthen wash basin will be excavated away from ditches to receive the wash water

#### ➤ **Spill Control Practices**

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- Manufacturers' recommended methods for spill cleanup will be clearly posted. All personnel will be made aware of procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area. Equipment and materials will include as appropriate, brooms, dust pans, mops, rags, gloves, oil absorbents, sand, sawdust, and plastic and metal trash containers.
- All spills will be cleaned up immediately after discovery.

### 3KYTC BMP Plan for Project Item 3-9024.00

- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate state/local agency as required by KRS 224 and applicable federal law.
- The spill prevention plan will be adjusted as needed to prevent spills from reoccurring and improve spill response and cleanup.
- Spills of products will be cleaned up promptly. Wastes from spill cleanup will be disposed in accordance with appropriate regulations.

## D. Other State and Local Plans

This BMP plan shall include any requirements specified in sediment and erosion control plans, storm water management plans or permits that have been approved by other state or local officials. Upon submittal of the NOI, other requirements for surface water protection are incorporated by reference into and are enforceable under this permit (even if they are not specifically included in this BMP plan). This provision does not apply to master or comprehensive plans, non-enforceable guidelines, or technical guidance documents that are not identified in a specific plan or permit issued for the construction site by state or local officials. *There are no other local (MS4) requirements that are expected to be necessary for this project.*

## E. Maintenance

1. The BMP plan shall include a clear description of the maintenance procedures necessary to keep the control measures in good and effective operating condition.
  - Maintenance of BMPs during construction shall be a result of weekly and post rain event inspections with action being taken by the contractor to correct deficiencies.
  - Post Construction maintenance will be a function of normal highway maintenance operations. Following final project acceptance by the cabinet, district highway crews will be responsible for identification and correction of deficiencies regarding ground cover and cleaning of storm water BMPs. The project manager shall identify any BMPs that will be for the purpose of post construction storm water management with specific guidance for any non-routine maintenance. *There are no such BMP's for this project.*

## 3KYTC BMP Plan for Project Item 3-9024.00

### F. Inspections

Inspection and maintenance practices that will be used to maintain erosion and sediment controls:

- All erosion prevention and sediment control measures will be inspected at least once each week and following any rain of one-half inch or more.
- Inspections will be conducted by individuals that have successfully completed the KEPSC-RI course as required by Section 213.02.02 of the Standard Specifications for Road and Bridge Construction, current edition.
- Inspection reports will be written, signed, dated, and kept on file.
- Areas at final grade will be seeded and mulched within 14 days.
- Areas that are not at final grade where construction has ceased for a period of 21 days or longer and soil stock piles shall receive temporary mulch no later than 14 days from the last construction activity in that area.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of being reported.
- Built-up sediment will be removed from behind the silt fence before it has reached halfway up the height of the fence.
- Silt fences will be inspected for bypassing, overtopping, undercutting, depth of sediment, tears, and to ensure attachment to secure posts.
- Sediment basins will be inspected for depth of sediment, and built-up sediment will be removed when it reaches 50 percent of the design capacity and at the end of the job.
- Diversion dikes and berms will be inspected and any breaches promptly repaired. Areas that are eroding or scouring will be repaired and re-seeded / mulched as needed.
- Temporary and permanent seeding and mulching will be inspected for bare spots, washouts, and healthy growth. Bare or eroded areas will be repaired as needed.
- All material storage and equipment servicing areas that involve the management of bulk liquids, fuels, and bulk solids will be inspected weekly for conditions that represent a release or possible release of pollutants to the environment.

### G. Non – Storm Water Discharges

It is expected that non-storm water discharges may occur from the site during the construction period. Examples of non-storm water discharges include:

- Water from water line flushings.
- Water from cleaning concrete trucks and equipment.

### 3KYTC BMP Plan for Project Item 3-9024.00

- Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).
- Uncontaminated groundwater and rain water (from dewatering during excavation).

All non-storm water discharges will be directed to the sediment basin or to a filter fence enclosure in a flat vegetated infiltration area or be filtered via another approved commercial product.

## H. Groundwater Protection Plan (3)

This plan serves as the groundwater protection plan as required by 401 KAR 5:037.

- Contractors statement: (3)

The following activities, as enumerated by 401 KAR 5:037 Section 2 that require the preparation and implementation of a groundwater protection plan, will or may be may be conducted as part of this construction project:

\_\_\_\_\_ 2. (e) land treatment or land disposal of a pollutant;

\_\_\_\_\_ 2. (f) Storing, ..., or related handling of hazardous waste, solid waste or special waste, ..., in tanks, drums, or other containers, or in piles, (This does not include wastes managed in a container placed for collection and removal of municipal solid waste for disposal off site);

\_\_\_\_\_ 2. (g) .... Handling of materials in bulk quantities (equal or greater than 55 gallons or 100 pounds net dry weight transported held in an individual container) that, if released to the environment, would be a pollutant;

\_\_\_\_\_ 2. (j) Storing or related handling of road oils, dust suppressants, ....., at a central location;

\_\_\_\_\_ 2. (k) Application or related handling of road oils, dust suppressants or deicing materials, (does not include use of chloride-based deicing materials applied to roads or parking lots);

\_\_\_\_\_ 2. (m) Installation, construction, operation, or abandonment of wells, bore holes, or core holes, (this does not include bore holes for the purpose of explosive demolition);

Or, check the following only if there are no qualifying activities:

### 3KYTC BMP Plan for Project Item 3-9024.00

\_\_\_\_\_ There are no activities for this project as listed in 401 KAR 5:037 Section 2 that require the preparation and implementation of a groundwater protection plan.

The contractor is responsible for the preparation of a plan that addresses the 401 KAR 5:037 Section 3. (3) Elements of site specific groundwater protection plan:

- (a) General information about this project is covered in the Project information;
- (b) Activities that require a groundwater protection plan have been identified above;
- (c) Practices that will protect groundwater from pollution are addressed in section C. Other control measures.
- (d) Implementation schedule – all practices required to prevent pollution of groundwater are to be in place prior to conducting the activity;
- (e) Training is required as a part of the ground water protection plan. All employees of the contractor, sub-contractor, and resident engineer personnel will be trained to understand the nature and requirements of this plan as they pertain to their job function(s). Training will be accomplished within one week of employment and annually thereafter. A record of training will be maintained by the contractor with a copy provide to the resident engineer.
- (f) Areas of the project and groundwater plan activities will be inspected as part of the weekly sediment and erosion control inspections
- (g) Certification (see signature page.)



### 3KYTC BMP Plan for Project Item 3-9024.00

## Contractor and Resident Engineer Plan certification

The contractor that is responsible for implementing this BMP plan is identified in the Project Information section of this plan.

The following certification applies to all parties that are signatory to this BMP plan:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Further, this plan complies with the requirements of 401 KAR 5:037. By this certification, the undersigned state that the individuals signing the plan have reviewed the terms of the plan and will implement its provisions as they pertain to ground water protection.

Resident Engineer and Contractor Certification:

(2) Resident Engineer signature

Signed \_\_\_\_\_ title \_\_\_\_\_, \_\_\_\_\_  
Typed or printed name<sup>2</sup> signature

(3) Signed \_\_\_\_\_ title \_\_\_\_\_, \_\_\_\_\_  
Typed or printed name<sup>1</sup> signature

1. Contractor Note: to be signed by a person who is the owner, a responsible corporate officer, a general partner, or the proprietor or a person designated to have the authority to sign reports by such a person in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601. Reference the Project Control Number (PCN) and KPDES number when one has been issued.

2. KYTC Note: to be signed by the Chief District Engineer, or a person designated to have the authority to sign reports by such a person (usually the resident engineer) in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601 Reference the Project Control Number (PCN) and KPDES number when one has been issued.

3KYTC BMP Plan for Project Item 3-9024.00

### Sub-Contractor Certification

The following sub-contractor shall be made aware of the BMP plan and responsible for implementation of BMPs identified in this plan as follows:

Subcontractor

Name:  
Address:  
Address:  
  
Phone:

The part of BMP plan this subcontractor is responsible to implement is:

I certify under penalty of law that I understand the terms and conditions of the general Kentucky Pollutant Discharge Elimination System permit that authorizes the storm water discharges, the BMP plan that has been developed to manage the quality of water to be discharged as a result of storm events associated with the construction site activity and management of non-storm water pollutant sources identified as part of this certification.

Signed \_\_\_\_\_ title \_\_\_\_\_, \_\_\_\_\_  
Typed or printed name<sup>1</sup> signature

1. Sub-Contractor Note: to be signed by a person who is the owner, a responsible corporate officer, a general partner, or the proprietor or a person designated to have the authority to sign reports by such a person in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601. Reference the Project Control Number (PCN) and KPDES number when one has been issued.

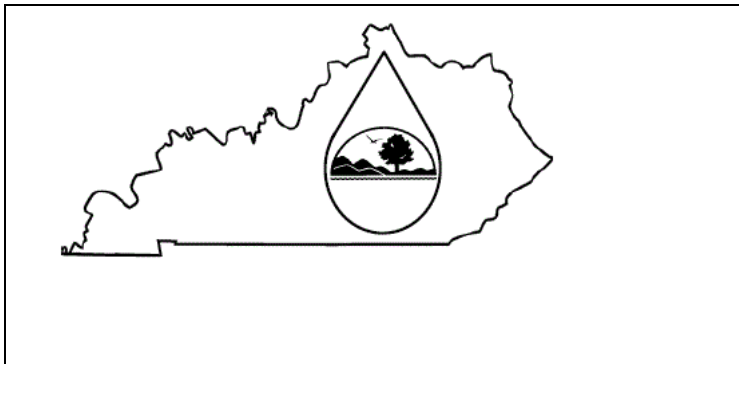
**Item No.: 3-9024**  
**Warren County**  
**Highway Safety Improvement Project along KY-185**  
**from MP 8.250 – 9.508**

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An electronic Notice of Intent (eNOI) for obtaining coverage under the Kentucky Pollutant Discharge Elimination System (KPDES) General Permit for Stormwater Discharges Associated with Construction Activities (KYR10) has been drafted, a copy of which is attached. Upon award, the Contractor will be identified in Section III of the form as the “Building Contractor” and the eNOI will be submitted for approval to the Kentucky Division of Water. The Contractor shall be responsible for advancing the work within this contract in a manner that is compliant with all applicable and appropriate KYTC specifications for sediment and erosion control, as well as meeting the requirements of the KYR10 permit and the KDOW.

**eForm Submittal ID: 321378**

**eForm Transaction ID: 171a5255-c60a-4021-a3e4-d9d0e10083f8**



## KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES)

Notice of Intent (NOI) for coverage of Storm Water Discharge  
Associated with Construction Activities Under the KPDES Storm  
Water General Permit KYR100000

[Click here for Instructions  
\(Controls/KPDES\\_FormKYR10\\_Instructions.htm\)](#)

[Click here to obtain information and a copy of the KPDES General Permit.  
\(http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf\)](http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf)

(\*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field

Reason for Submittal:(*) <input type="text" value="Application for New Permit Coverage"/>	Agency Interest ID: <input type="text" value="Agency Interest ID"/>	Permit Number:(✓) <input type="text" value="KPDES Permit Number"/>
--	--	---

If change to existing permit coverage is requested, describe the changes for which modification of coverage is being sought:(✓)

**ELIGIBILITY:**  
Stormwater discharges associated with construction activities disturbing individually one (1) acre or more, including, in the case of a common plan of development, contiguous construction activities that cumulatively equal one (1) acre or more of disturbance.

**EXCLUSIONS:**  
The following are excluded from coverage under this general permit:  
 1) Are conducted at or on properties that have obtained an individual KPDES permit for the discharge of other wastewaters which requires the development and implementation of a Best Management Practices (BMP) plan;  
 2) Any operation that the DOW determines an individual permit would better address the discharges from that operation;  
 3) Any project that discharges to an Impaired Water listed in the most recent Integrated Report, §305(b) as impaired for sediment and for which an approved TMDL has been developed.

**SECTION I -- FACILITY OPERATOR INFORMATION (PERMITTEE)**

Company Name:(✓) <input type="text" value="Kentucky Transportation Cabinet, District 3"/>	First Name:(✓) <input type="text" value="Joe"/>	M.I.: <input type="text" value="MI"/>	Last Name:(✓) <input type="text" value="Plunk"/>
Mailing Address:(*) <input type="text" value="900 Morgantown Rd."/>	City:(*) <input type="text" value="Bowling Green"/>	State:(*) <input type="text" value="Kentucky"/>	Zip:(*) <input type="text" value="42101"/>
eMail Address:(*) <input type="text" value="Joseph.Plunk@ky.gov"/>	Business Phone:(*) <input type="text" value="270-746-7898"/>	Alternate Phone: <input type="text" value="Phone"/>	

**SECTION II -- GENERAL SITE LOCATION INFORMATION**

Project Name:(*) <input type="text" value="Item No. 3-9024"/>	Status of Owner/Operator(*) <input type="text" value="State Government"/>	SIC Code(*) <input type="text" value="1611 Highway and Street Cons"/>
Company Name:(✓) <input type="text" value="Company Name"/>	First Name:(✓) <input type="text" value="First Name"/>	M.I.: <input type="text" value="MI"/>
Last Name:(✓) <input type="text" value="Last Name"/>		
Site Physical Address:(*) <input type="text" value="KY-185"/>		
City:(*) <input type="text" value="Bowling Green"/>	State:(*) <input type="text" value="Kentucky"/>	Zip:(*) <input type="text" value="42101"/>
County:(*) <input type="text" value="Warren"/>	Latitude(decimal degrees)(*)DMS to DD Converter ( <a href="https://www.fcc.gov/media/radio/dms-decimal">https://www.fcc.gov/media/radio/dms-decimal</a> ) <input type="text" value="37.117178"/>	Longitude(decimal degrees)(*) <input type="text" value="-86.423017"/>

**SECTION III -- SPECIFIC SITE ACTIVITY INFORMATION**

Project Description:(\*)

a. For single projects provide the following information

Total Number of Acres in Project:(√) <input style="width:95%;" type="text" value="8.5"/>	Total Number of Acres Disturbed:(√) <input style="width:95%;" type="text" value="5.1"/>
Anticipated Start Date:(√) <input style="width:95%;" type="text"/>	Anticipated Completion Date:(√) <input style="width:95%;" type="text"/>

**b. For common plans of development provide the following information**

Total Number of Acres in Project:(√) <input style="width:95%;" type="text" value="# Acre(s)"/>	Total Number of Acres Disturbed:(√) <input style="width:95%;" type="text" value="# Acre(s)"/>
Number of individual lots in development, if applicable:(√) <input style="width:95%;" type="text" value="# lot(s)"/>	Number of lots in development:(√) <input style="width:95%;" type="text" value="# lot(s)"/>
Total acreage of lots intended to be developed:(√) <input style="width:95%;" type="text" value="Project Acres"/>	Number of acres intended to be disturbed at any one time:(√) <input style="width:95%;" type="text" value="Disturbed Acres"/>
Anticipated Start Date:(√) <input style="width:95%;" type="text"/>	Anticipated Completion Date:(√) <input style="width:95%;" type="text"/>

List Building Contractor(s) at the time of Application:(\*)

	Company Name			
+				

**SECTION IV -- IF THE PERMITTED SITE DISCHARGES TO A WATER BODY THE FOLLOWING INFORMATION IS REQUIRED** ?

Discharge Point(s):

	Unnamed Tributary?	Latitude	Longitude	Receiving Water Name	
1	Yes	37.122895	-86.422266	Indian Creek	Delete
2	Yes	37.127001	-86.422751	Indian Creek	Delete
3	Yes	37.110934	-86.424379	Indian Creek	Delete
4	Yes	37.113672	-86.424448	Indian Creek	Delete
+					

**SECTION V -- IF THE PERMITTED SITE DISCHARGES TO A MS4 THE FOLLOWING INFORMATION IS REQUIRED** ?

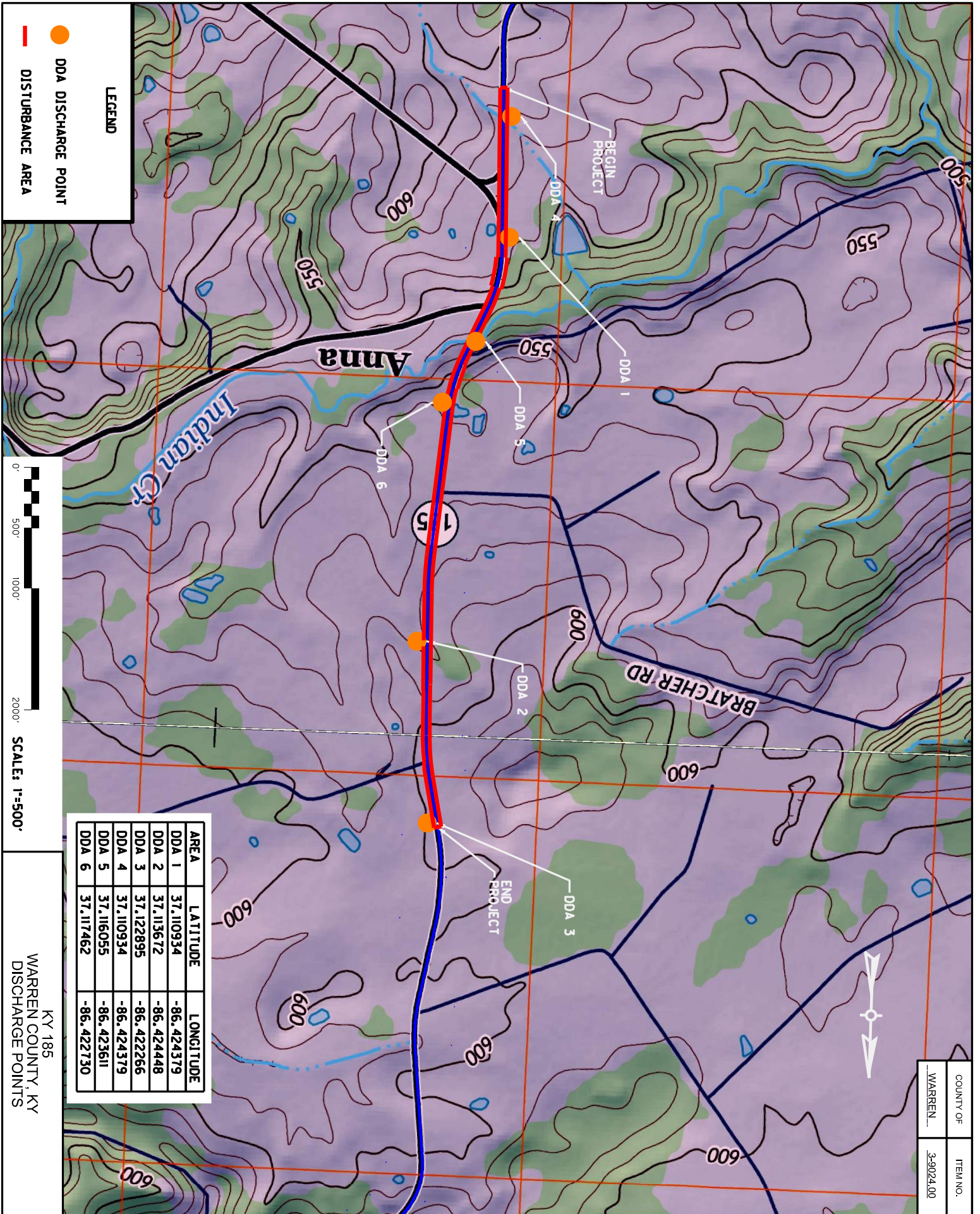
Name of MS4: <input style="width:95%;" type="text"/>											
Date of application/notification to the MS4 for construction site permit coverage: <input style="width:95%;" type="text" value="Date"/>	Discharge Point(s):(*) <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;"></th> <th style="width:30%;">Latitude</th> <th style="width:30%;">Longitude</th> <th style="width:15%;"></th> <th style="width:20%;"></th> </tr> </thead> <tbody> <tr> <td style="text-align:center;">+</td> <td style="height: 50px;"></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Latitude	Longitude			+				
	Latitude	Longitude									
+											

**SECTION VI -- WILL THE PROJECT REQUIRE CONSTRUCTION ACTIVITIES IN A WATER BODY OR THE RIPARIAN ZONE?**

Will the project require construction activities in a water body or the riparian zone?: (*)	<input style="width:95%;" type="text" value="No"/>
If Yes, describe scope of activity: (√)	<input style="width:95%;" type="text" value="describe scope of activity"/>
Is a Clean Water Act 404 permit required?:(*)	<input style="width:95%;" type="text" value="No"/>

Is a Clean Water Act 401 Water Quality Certification required?:(*)		No <input type="button" value="v"/>	
<b>SECTION VII -- NOI PREPARER INFORMATION</b>			
First Name:(*) <input type="text" value="First Name"/>	M.I.: <input type="text" value="MI"/>	Last Name:(*) <input type="text" value="Last Name"/>	Company Name:(*) <input type="text" value="Company Name"/>
Mailing Address:(*) <input type="text" value="Mailing Address"/>	City:(*) <input type="text" value="City"/>	State:(*) <input type="button" value="v"/>	Zip:(*) <input type="text" value="Zip"/>
eMail Address:(*) <input type="text" value="eMail Address"/>	Business Phone:(*) <input type="text" value="Phone"/>	Alternate Phone: <input type="text" value="Phone"/>	
<b>SECTION VIII -- ATTACHMENTS</b>			
Facility Location Map:(*)	<input type="button" value="Upload file"/>		
Supplemental Information:	<input type="button" value="Upload file"/>		
<b>SECTION IX -- CERTIFICATION</b>			
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.			
Signature:(*) <input type="text" value="Signature"/>	Title:(*) <input type="text" value="Title"/>		
First Name:(*) <input type="text" value="First Name"/>	M.I.: <input type="text" value="MI"/>	Last Name:(*) <input type="text" value="Last Name"/>	
eMail Address:(*) <input type="text" value="eMail Address"/>	Business Phone:(*) <input type="text" value="Phone"/>	Alternate Phone: <input type="text" value="Phone"/>	Signature Date:(*) <input type="text" value="Date"/>
<input type="button" value="Click to Save Values for Future Retrieval"/> <input type="button" value="Click to Submit to EEC"/>			





**LEGEND**

- DDA DISCHARGE POINT
- DISTURBANCE AREA



AREA	LATITUDE	LONGITUDE
DDA 1	37.110934	-86.424379
DDA 2	37.113672	-86.424448
DDA 3	37.122895	-86.422266
DDA 4	37.110934	-86.424379
DDA 5	37.116055	-86.423611
DDA 6	37.117462	-86.422730

KY 185  
WARREN COUNTY, KY  
DISCHARGE POINTS

COUNTY OF	ITEM NO.
WARREN	3-9024.00

## KENTUCKY TRANSPORTATION CABINET COMMUNICATING ALL PROMISES (CAP)

Item No. 3 - 110.3

County: Warren

Route: 185

Project Manager: ANDREW STEWART

5/23/24

CAP #	Date of Promise	Promise made to:	Location of Promise:	CAP Description
1	5/23/24	Mike Russell	Parcel 7	Owner acknowledges downspouts extend into the existing R/W and proposed.
2	5/23/24	Mike Russell	Parcel 8	The two trees located within the temporary easement (Tract B), but outside of the disturbance limits, on either side of the driveway (entrance) located on Pruitt Road at the Lt. Station 101+83 will not be disturbed if at all possible. Speak with property owner first if must be removed.
3	5/23/24	Mike Russell	Parcel 15	The Cabinet insures to the property owner that any disruption of land within the permanent easement area is returned to satisfactory condition.
4	5/23/24	Mike Russell	Parcel 17	KYTC agrees that the entrance located at Station 200+11.50 will be reconstructed back to its original likeness as it was in the before situation and the mailbox will be relocated. Any ground disturbed will be repaired back to similar likeness as it was in the before situation as well.
5	5/23/24	Mike Russell	Parcel 3	Please give 30-day notice to property owners before removal of any site improvements.
6	5/23/24	Mike Russell	Parcel 11	The Cabinet agrees that if the trees located within the temporary easement, but outside the disturb limits, are damaged structurally via the root system during construction, the road contractor will remove the trees. The Cabinet also agrees to contact the property once construction authorization has begun, giving the property owner the start date of construction for the project. The temporary easement will begin on this date.
7	5/23/24	Mike Russell	Parcel 16	WHEREAS, the Transportation Cabinet, Commonwealth of Kentucky, in order to protect Highway No. finds it necessary to do the following work: Complete the construction of entrances located at Rt. St. 202+15 and Rt. St. 207+95 on Scoggins Rd. Most of the entrance construction will be on the fee simple tracts, but in order to tie in the slopes a portion of the construction will be outside said fee simple tract. To forgo any additional area acquired the property owner, Ronald Grimes, agrees to a consent and release to complete the necessary dirt work associated with the construction of the entrance slopes. Mr. Grimes does not live at the subject property on Scoggins Rd., this tract of land is vacant residential. The work will be done on the land of the property owner listed in Section 2. NOW, THEREFORE, in consideration of the above and the incidental benefits accruing to the property, I hereby consent and agree that the Transportation Cabinet may come upon the above property and do the work as set out above, and do further agree that I will assert no claim for damages against the Transportation Cabinet by reason of said work, but by these presents shall be forever barred.
8	5/23/24	Mike Russell	Parcel 29	KYTC agrees the property owners will be able to use their existing entrance to cross the portion of property being obtained from them by KYTC for the highway road project. Item Number 03- 110.30 Parcel 29, until KYTC has constructed a new entrance directly onto their remaining property. Once that entrance onto their remaining property has been constructed. they will no longer be able to access the portion of land being acquired from them by KYTC as part of this project.



## KENTUCKY TRANSPORTATION CABINET COMMUNICATING ALL PROMISES (CAP)

Item No. 3 - 110.3

County: Warren

Route: 185

Project Manager: ANDREW STEWART

5/23/24

CAP #	Date of Promise	Promise made to:	Location of Promise:	CAP Description
9	5/23/24	Mike Russell	Parcel 30	WHEREAS, the Transportation Cabinet, Commonwealth of Kentucky, finds it necessary to do the following work within, along, and/or adjacent to the existing right of way and has requested permission to: Complete the construction of the entrance located at Lt. Station 36+78. The entrance construction is necessary to tie the entrance into the existing KY Hwy 185, maintaining a grade that is feasible for motorists. Furthermore, the entrance located at Lt. Station 36+78 will be placed back using concrete material. To forgo any additional area acquired, the property owner, Estate of Jessie Harlow, agrees to a consent and release to complete the necessary dirt work associated with the construction of the entrance slope and tie-in.

# MATERIAL SUMMARY

**CONTRACT ID: 241108**

**114GR24D008**

**0311401852401**

STATE ROUTE 185 (KY 185) FROM 0.257 MILE SOUTH OF KY 1320 EXTENDING NORTH TO 0.099 MILE NORTH OF JACK SIMMONS ROAD GRADE & DRAIN WITH ASPHALT SURFACE, A DISTANCE OF 1.26 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0005	00001	DGA BASE	507.00	TON
0010	00100	ASPHALT SEAL AGGREGATE	62.00	TON
0015	00103	ASPHALT SEAL COAT	7.50	TON
0020	00190	LEVELING & WEDGING PG64-22	268.00	TON
0025	00212	CL2 ASPH BASE 1.00D PG64-22	853.00	TON
0030	00301	CL2 ASPH SURF 0.38D PG64-22	1,340.00	TON
0035	02676	MOBILIZATION FOR MILL & TEXT - (WARREN KY 185 HSIP)	1.00	LS
0040	02677	ASPHALT PAVE MILLING & TEXTURING	146.00	TON
0045	24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING	3.30	TON
0050	01987	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	18.00	EACH
0055	02159	TEMP DITCH	3,000.00	LF
0060	02160	CLEAN TEMP DITCH	1,500.00	LF
0065	02200	ROADWAY EXCAVATION	166.00	CUYD
0070	02230	EMBANKMENT IN PLACE	792.00	CUYD
0075	02355	GUARDRAIL-STEEL W BEAM-S FACE A	100.00	LF
0080	02360	GUARDRAIL TERMINAL SECTION NO 1	3.00	EACH
0085	02367	GUARDRAIL END TREATMENT TYPE 1	1.00	EACH
0090	02381	REMOVE GUARDRAIL	857.00	LF
0095	02483	CHANNEL LINING CLASS II	152.00	TON
0100	02545	CLEARING AND GRUBBING - (5.1 AC)	1.00	LS
0105	02650	MAINTAIN & CONTROL TRAFFIC - (WARREN KY 185 HSIP)	1.00	LS
0110	02671	PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH
0115	02697	EDGELINE RUMBLE STRIPS	12,400.00	LF
0120	02701	TEMP SILT FENCE	3,000.00	LF
0125	02703	SILT TRAP TYPE A	9.00	EACH
0130	02704	SILT TRAP TYPE B	9.00	EACH
0135	02705	SILT TRAP TYPE C	9.00	EACH
0140	02706	CLEAN SILT TRAP TYPE A	9.00	EACH
0145	02707	CLEAN SILT TRAP TYPE B	9.00	EACH
0150	02708	CLEAN SILT TRAP TYPE C	9.00	EACH
0155	02726	STAKING - (WARREN KY 185 HSIP)	1.00	LS
0160	05950	EROSION CONTROL BLANKET	1,500.00	SQYD
0165	05952	TEMP MULCH	27,556.00	SQYD
0170	05953	TEMP SEEDING AND PROTECTION	20,667.00	SQYD
0175	05963	INITIAL FERTILIZER	1.40	TON
0180	05964	MAINTENANCE FERTILIZER	.80	TON
0185	05985	SEEDING AND PROTECTION	26,178.00	SQYD
0190	05992	AGRICULTURAL LIMESTONE	16.20	TON
0195	06404	FLEXIBLE DELINEATOR POST-M/Y	12.00	EACH
0200	06510	PAVE STRIPING-TEMP PAINT-4 IN	24,800.00	LF
0205	06515	PAVE STRIPING-PERM PAINT-6 IN	24,800.00	LF
0210	08805	GUARDRAIL-BRIDGE CASE I	86.00	LF

## MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0215	20748ED	SHOULDER MILLING/TRENCHING	2,558.00	SQYD
0220	21802EN	G/R STEEL W BEAM-S FACE (7 FT POST)	638.75	LF
0225	00462	CULVERT PIPE-18 IN	40.00	LF
0230	00464	CULVERT PIPE-24 IN	51.00	LF
0235	01310	REMOVE PIPE	51.00	LF
0240	01726	SAFETY BOX INLET-18 IN SDB-1	1.00	EACH
0245	01727	SAFETY BOX INLET-24 IN SDB-1	2.00	EACH
0250	02403	REMOVE CONCRETE MASONRY	1.00	CUYD
0255	02625	REMOVE HEADWALL	8.00	EACH
0260	08003	FOUNDATION PREPARATION - (3X3 RCBC, STA 487+24)	1.00	LS
0265	08003	FOUNDATION PREPARATION - (4X4 RCBC, STA 442+24)	1.00	LS
0270	08100	CONCRETE-CLASS A	44.75	CUYD
0275	08150	STEEL REINFORCEMENT	2,568.00	LB
0280	26131ED	SLOPED AND MITERED HEADWALL-18 IN	2.00	EACH
0285	26132ED	SLOPED AND MITERED HEADWALL-24 IN	3.00	EACH
0290	21134ND	REMOVE-STORE AND REINSTALL SIGN	27.00	EACH
0295	02569	DEMOBILIZATION	1.00	LS

**CONTRACT ID: 241108**

**114GR24D008**

**DE11401852408**

KY 185 KY 185 - SPOT #1 GRADE & DRAIN WITH ASPHALT SURFACE, A DISTANCE OF 1.86 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0300	00003	CRUSHED STONE BASE	21,727.00	TON
0305	00008	CEMENT STABILIZED ROADBED	41,796.00	SQYD
0310	00020	TRAFFIC BOUND BASE	1,645.00	TON
0315	00078	CRUSHED AGGREGATE SIZE NO 2	886.00	TON
0320	00100	ASPHALT SEAL AGGREGATE	179.00	TON
0325	00103	ASPHALT SEAL COAT	21.00	TON
0330	00190	LEVELING & WEDGING PG64-22	380.00	TON
0335	00212	CL2 ASPH BASE 1.00D PG64-22	16,351.00	TON
0340	00301	CL2 ASPH SURF 0.38D PG64-22	293.00	TON
0345	00309	CL2 ASPH SURF 0.50D PG64-22	598.00	TON
0350	00324	CL3 ASPH SURF 0.50B PG64-22	3,153.00	TON
0355	00358	ASPHALT CURING SEAL	42.00	TON
0360	02101	CEM CONC ENT PAVEMENT-8 IN	301.00	SQYD
0365	02542	CEMENT	835.00	TON
0370	02602	FABRIC-GEOTEXTILE CLASS 1 - (FOR SEPARATION)	2,054.00	SQYD
0375	02702	SAND FOR BLOTTER	104.00	TON
0380	20071EC	JOINT ADHESIVE	19,110.00	LF
0385	24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING	29.00	TON
0390	00078	CRUSHED AGGREGATE SIZE NO 2	3,845.00	TON
0395	01000	PERFORATED PIPE-4 IN	993.00	LF
0400	01010	NON-PERFORATED PIPE-4 IN	96.00	LF
0405	01020	PERF PIPE HEADWALL TY 1-4 IN	4.00	EACH
0410	01024	PERF PIPE HEADWALL TY 2-4 IN	4.00	EACH

## MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0415	01028	PERF PIPE HEADWALL TY 3-4 IN	1.00	EACH
0420	01032	PERF PIPE HEADWALL TY 4-4 IN	3.00	EACH
0425	01711	FILL AND CAP WELL	1.00	EACH
0430	01740	CORED HOLE DRAINAGE BOX CON-4 IN	3.00	EACH
0435	01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	132.00	EACH
0440	02014	BARRICADE-TYPE III	24.00	EACH
0445	02091	REMOVE PAVEMENT	1,390.00	SQYD
0450	02159	TEMP DITCH	6,174.00	LF
0455	02160	CLEAN TEMP DITCH	3,089.00	LF
0460	02223	GRANULAR EMBANKMENT	10.00	CUYD
0465	02230	EMBANKMENT IN PLACE	427,943.00	CUYD
0470	02242	WATER	500.00	MGAL
0475	02360	GUARDRAIL TERMINAL SECTION NO 1	8.00	EACH
0480	02373	GUARDRAIL END TREATMENT TYPE 3	4.00	EACH
0485	02381	REMOVE GUARDRAIL	1,144.00	LF
0490	02391	GUARDRAIL END TREATMENT TYPE 4A	6.00	EACH
0495	02429	RIGHT-OF-WAY MONUMENT TYPE 1	111.00	EACH
0500	02432	WITNESS POST	13.00	EACH
0505	02469	CLEAN SINKHOLE	2.00	EACH
0510	02471	FILL AND CAP SINKHOLE	1.00	EACH
0515	02483	CHANNEL LINING CLASS II	3,770.40	TON
0520	02484	CHANNEL LINING CLASS III	2,976.00	TON
0525	02545	CLEARING AND GRUBBING - APPROXIMATELY 58.6 ACRES.	1.00	LS
0530	02555	CONCRETE-CLASS B	75.00	CUYD
0535	02562	TEMPORARY SIGNS	166.00	SQFT
0540	02585	EDGE KEY	188.00	LF
0545	02602	FABRIC-GEOTEXTILE CLASS 1 - (FOR SLOPE PROTECTION)	9,008.00	SQYD
0550	02602	FABRIC-GEOTEXTILE CLASS 1 - (FOR STABILIZATION)	8,667.00	SQYD
0555	02603	FABRIC-GEOTEXTILE CLASS 2 - (FOR SEPARATION)	8,350.00	SQYD
0560	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
0565	02671	PORTABLE CHANGEABLE MESSAGE SIGN	4.00	EACH
0570	02676	MOBILIZATION FOR MILL & TEXT	1.00	LS
0575	02677	ASPHALT PAVE MILLING & TEXTURING	61.80	TON
0580	02697	EDGELINE RUMBLE STRIPS	18,347.00	LF
0585	02701	TEMP SILT FENCE	10,713.00	LF
0590	02703	SILT TRAP TYPE A	59.00	EACH
0595	02704	SILT TRAP TYPE B	59.00	EACH
0600	02705	SILT TRAP TYPE C	18.00	EACH
0605	02706	CLEAN SILT TRAP TYPE A	118.00	EACH
0610	02707	CLEAN SILT TRAP TYPE B	118.00	EACH
0615	02708	CLEAN SILT TRAP TYPE C	36.00	EACH
0620	02726	STAKING	1.00	LS
0625	03171	CONCRETE BARRIER WALL TYPE 9T	325.00	LF
0630	05950	EROSION CONTROL BLANKET	52,824.00	SQYD
0635	05952	TEMP MULCH	189,115.00	SQYD
0640	05953	TEMP SEEDING AND PROTECTION	141,836.00	SQYD
0645	05963	INITIAL FERTILIZER	11.00	TON
0650	05964	MAINTENANCE FERTILIZER	7.00	TON



## MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0655	05985	SEEDING AND PROTECTION	113,602.00	SQYD
0660	05990	SODDING	44,349.00	SQYD
0665	05992	AGRICULTURAL LIMESTONE	131.00	TON
0670	06510	PAVE STRIPING-TEMP PAINT-4 IN	7,960.00	LF
0675	06530	PAVE STRIPING REMOVAL-4 IN	7,960.00	LF
0680	06540	PAVE STRIPING-THERMO-4 IN W	25,904.00	LF
0685	06541	PAVE STRIPING-THERMO-4 IN Y	26,376.00	LF
0690	06568	PAVE MARKING-THERMO STOP BAR-24IN	252.00	LF
0695	06569	PAVE MARKING-THERMO CROSS-HATCH	9,490.00	SQFT
0700	06574	PAVE MARKING-THERMO CURV ARROW	5.00	EACH
0705	06578	PAVE MARKING-THERMO MERGE ARROW	2.00	EACH
0710	08150	STEEL REINFORCEMENT	50.00	LB
0715	08903	CRASH CUSHION TY VI CLASS BT TL3	2.00	EACH
0720	10020NS	FUEL ADJUSTMENT	103,966.00	DOLL
0725	10030NS	ASPHALT ADJUSTMENT	50,050.00	DOLL
0730	20166ES810	TEMPORARY PIPE	184.00	LF
0735	20191ED	OBJECT MARKER TY 3	6.00	EACH
0740	20458ES403	CENTERLINE RUMBLE STRIPS	9,600.00	LF
0745	20550ND	SAWCUT PAVEMENT	3,015.00	LF
0750	21289ED	LONGITUDINAL EDGE KEY	1,775.00	LF
0755	21802EN	G/R STEEL W BEAM-S FACE (7 FT POST)	7,038.00	LF
0760	23274EN11F	TURF REINFORCEMENT MAT 1	13,333.00	SQYD
0765	23649EC	DRAIN POND - Station Range 1525+55 - 1527+90	1.00	LS
0770	23649EC	DRAIN POND - Station Range 1584+30 - 1586+20	1.00	LS
0775	00440	ENTRANCE PIPE-15 IN	646.00	LF
0780	00441	ENTRANCE PIPE-18 IN	312.00	LF
0785	00443	ENTRANCE PIPE-24 IN	319.00	LF
0790	00462	CULVERT PIPE-18 IN	290.00	LF
0795	00464	CULVERT PIPE-24 IN	368.00	LF
0800	00469	CULVERT PIPE-42 IN	269.00	LF
0805	00521	STORM SEWER PIPE-15 IN	51.00	LF
0810	00522	STORM SEWER PIPE-18 IN	379.00	LF
0815	00526	STORM SEWER PIPE-30 IN	364.00	LF
0820	01204	PIPE CULVERT HEADWALL-18 IN	6.00	EACH
0825	01208	PIPE CULVERT HEADWALL-24 IN	6.00	EACH
0830	01210	PIPE CULVERT HEADWALL-30 IN	2.00	EACH
0835	01214	PIPE CULVERT HEADWALL-42 IN	2.00	EACH
0840	01371	METAL END SECTION TY 1-18 IN	2.00	EACH
0845	01450	S & F BOX INLET-OUTLET-18 IN	2.00	EACH
0850	01496	DROP BOX INLET TYPE 3	1.00	EACH
0855	01499	DROP BOX INLET TYPE 4	2.00	EACH
0860	01538	DROP BOX INLET TYPE 7	1.00	EACH
0865	02483	CHANNEL LINING CLASS II	531.50	TON
0870	02484	CHANNEL LINING CLASS III	48.70	TON
0875	02602	FABRIC-GEOTEXTILE CLASS 1 - (FOR SLOPE PROTECTION)	421.00	SQYD
0880	02602	FABRIC-GEOTEXTILE CLASS 1 - (FOR STABILIZATION)	62.00	SQYD
0885	02603	FABRIC-GEOTEXTILE CLASS 2 - (FOR SUBSURFACE DRAINAGE)	69.00	SQYD
0890	02607	FABRIC-GEOTEXTILE CLASS 2 FOR PIPE	4,574.00	SQYD
0895	03262	CLEAN PIPE STRUCTURE	3.00	EACH

## MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0900	24814EC	PIPELINE INSPECTION	2,210.00	LF
0905	08002	STRUCTURE EXCAV-SOLID ROCK	40.00	CUYD
0910	08003	FOUNDATION PREPARATION	1.00	LS
0915	08100	CONCRETE-CLASS A	518.40	CUYD
0920	08150	STEEL REINFORCEMENT	80,555.00	LB
0925	06401	FLEXIBLE DELINEATOR POST-M/W	22.00	EACH
0930	06404	FLEXIBLE DELINEATOR POST-M/Y	14.00	EACH
0935	06406	SBM ALUM SHEET SIGNS .080 IN	160.00	SQFT
0940	06407	SBM ALUM SHEET SIGNS .125 IN	32.00	SQFT
0945	06411	STEEL POST TYPE 2	421.00	LF
0950	06412	STEEL POST MILE MARKERS	2.00	EACH
0955	21373ND	REMOVE SIGN	15.00	EACH
0960	24631EC	BARCODE SIGN INVENTORY	35.00	EACH
0965	02568	MOBILIZATION	1.00	LS
0970	02569	DEMOBILIZATION	1.00	LS

# GUARDRAIL DELIVERY VERIFICATION SHEET

Contract Id: \_\_\_\_\_

Contractor: \_\_\_\_\_

Section Engineer: \_\_\_\_\_

District & County: \_\_\_\_\_

<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QTY LEAVING PROJECT</u>	<u>QTY RECEIVED@BB YARD</u>
GUARDRAIL (Includes End treatments & crash cushions)	LF	_____	_____
STEEL POSTS	EACH	_____	_____
STEEL BLOCKS	EACH	_____	_____
WOOD OFFSET BLOCKS	EACH	_____	_____
BACK UP PLATES	EACH	_____	_____
CRASH CUSHION	EACH	_____	_____
NUTS, BOLTS, WASHERS	BAG/BCKT	_____	_____
DAMAGED RAIL TO MAINT. FACILITY	LF	_____	_____
DAMAGED POSTS TO MAINT. FACILITY	EACH	_____	_____

**\*Required Signatures before Leaving Project Site**

Printed Section Engineer's Representative \_\_\_\_\_ & Date \_\_\_\_\_

Signature Section Engineer's Representative \_\_\_\_\_ & Date \_\_\_\_\_

Printed Contractor's Representative \_\_\_\_\_ & Date \_\_\_\_\_

Signature Contractor's Representative \_\_\_\_\_ & Date \_\_\_\_\_

**\*Required Signatures after Arrival at Bailey Bridge Yard (All material on truck must be counted & the quantity received column completed before signatures)**

Printed Bailey Bridge Yard Representative \_\_\_\_\_ & Date \_\_\_\_\_

Signature Bailey Bridge Yard Representative \_\_\_\_\_ & Date \_\_\_\_\_

Printed Contractor's Representative \_\_\_\_\_ & Date \_\_\_\_\_

Signature Contractor's Representative \_\_\_\_\_ & Date \_\_\_\_\_

\*\*Payment for the bid item remove guardrail will be based upon the quantities shown in the Bailey Bridge Yard received column. Payment will not be made for guardrail removal until the guardrail verification sheets are electronically submitted to the Section Engineer by the Bailey Bridge Yard Representative.

Completed Form Submitted to Section Engineer Date: \_\_\_\_\_ By: \_\_\_\_\_

**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>

## **SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS**

This Special Note will apply when indicated on the plans or in the proposal.

**1.0 DESCRIPTION.** Furnish, install, operate, and maintain variable message signs at the locations shown on the plans or designated by the Engineer. Remove and retain possession of variable message signs when they are no longer needed on the project.

### **2.0 MATERIALS.**

**2.1 General.** Use LED Variable Message Signs Class I, II, or III, as appropriate, from the Department's List of Approved Materials.

Unclassified signs may be submitted for approval by the Engineer. The Engineer may require a daytime and nighttime demonstration. The Engineer will make a final decision within 30 days after all required information is received.

**2.2 Sign and Controls.** All signs must:

- 1) Provide 3-line messages with each line being 8 characters long and at least 18 inches tall. Each character comprises 35 pixels.
- 2) Provide at least 40 preprogrammed messages available for use at any time. Provide for quick and easy change of the displayed message; editing of the message; and additions of new messages.
- 3) Provide a controller consisting of:
  - a) Keyboard or keypad.
  - b) Readout that mimics the actual sign display. (When LCD or LCD type readout is used, include backlighting and heating or otherwise arrange for viewing in cold temperatures.)
  - c) Non-volatile memory or suitable memory with battery backup for storing pre-programmed messages.
  - d) Logic circuitry to control the sequence of messages and flash rate.
- 4) Provide a serial interface that is capable of supporting complete remote control ability through land line and cellular telephone operation. Include communication software capable of immediately updating the message, providing complete sign status, and allowing message library queries and updates.
- 5) Allow a single person easily to raise the sign to a satisfactory height above the pavement during use, and lower the sign during travel.
- 6) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
- 7) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
- 8) Provide the driver board as part of a module. All modules are interchangeable, and have plug and socket arrangements for disconnection and reconnection. Printed circuit boards associated with driver boards have a conformable coating to protect against moisture.
- 9) Provide a sign case sealed against rain, snow, dust, insects, etc. The lens is UV stabilized clear plastic (polycarbonate, acrylic, or other approved material) angled to prevent glare.
- 10) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
- 11) Provide a photocell control to provide automatic dimming.



- 12) Allow an on-off flashing sequence at an adjustable rate.
- 13) Provide a sight to aim the message.
- 14) Provide a LED display color of approximately 590 nm amber.
- 15) Provide a controller that is password protected.
- 16) Provide a security device that prevents unauthorized individuals from accessing the controller.
- 17) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

/KEEP/RIGHT/=>=>=>/	/MIN/SPEED/**MPH/
/KEEP/LEFT/<=<=</	/ICY/BRIDGE/AHEAD/ /ONE
/LOOSE/GRAVEL/AHEAD/	LANE/BRIDGE/AHEAD/
/RD WORK/NEXT/**MILES/	/ROUGH/ROAD/AHEAD/
/TWO WAY/TRAFFIC/AHEAD/	/MERGING/TRAFFIC/AHEAD/
/PAINT/CREW/AHEAD/	/NEXT/***/MILES/
/REDUCE/SPEED/**MPH/	/HEAVY/TRAFFIC/AHEAD/
/BRIDGE/WORK/***0 FT/	/SPEED/LIMIT/**MPH/
/MAX/SPEED/**MPH/	/BUMP/AHEAD/
/SURVEY/PARTY/AHEAD/	/TWO/WAY/TRAFFIC/

\*Insert numerals as directed by the Engineer.  
Add other messages during the project when required by the Engineer.

**2.3 Power.**

- 1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide direct wiring for operation of the sign or arrow board from an external power source to provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.

**3.0 CONSTRUCTION.** Furnish and operate the variable message signs as designated on the plans or by the Engineer. Ensure the bottom of the message panel is a minimum of 7 feet above the roadway in urban areas and 5 feet above in rural areas when operating. Use Class I, II, or III signs on roads with a speed limit less than 55 mph. Use Class I or II signs on roads with speed limits 55 mph or greater.

Maintain the sign in proper working order, including repair of any damage done by others, until completion of the project. When the sign becomes inoperative, immediately repair or replace the sign. Repetitive problems with the same unit will be cause for rejection and replacement.

Use only project related messages and messages directed by the Engineer, unnecessary messages lessen the impact of the sign. Ensure the message is displayed in either one or 2 phases with each phase having no more than 3 lines of text. When no message is needed, but it is necessary to know if the sign is operable, flash only a pixel.

When the sign is not needed, move it outside the clear zone or where the Engineer directs. Variable Message Signs are the property of the Contractor and shall be removed from the project when no longer needed. The Department will not assume ownership of these signs.

**4.0 MEASUREMENT.** The final quantity of Variable Message Sign will be

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the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

**5.0 PAYMENT.** The Department will pay for the Variable Message Signs at the unit price each. The Department will not pay for signs replaced due to damage or rejection. Payment is full compensation for furnishing all materials, labor, equipment, and service necessary to, operate, move, repair, and maintain or replace the variable message signs. The Department will make payment for the completed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

## SPECIAL NOTE FOR ROCK BLASTING

This Special Note will apply when indicated on the plans or in the proposal. Section references herein are to the Department's Current Standard Specifications for Road and Bridge Construction.

**1.0 DESCRIPTION.** This work consists of fracturing rock and constructing stable final rock cut faces using presplit blasting and production blasting techniques.

**2.0 MATERIALS.** Deliver, store, and use explosives according to the manufacturer's recommendations and applicable laws. Do not use explosives outside their recommended use date. Verify date of manufacture and provide copies of the technical data sheets (TDS) and material safety data sheets (MSDS) to the Engineer. Explosives and initiating devices include, but are not necessarily limited to, dynamite and other high explosives, slurries, water gels, emulsions, blasting agents, initiating explosives, detonators, blasting caps, and detonating cord.

**3.0 CONSTRUCTION.** Furnish copies or other proof of all-applicable permits and licenses. Comply with Federal, State, and local regulations on the purchase, transportation, storage, and use of explosive material. Regulations include but are not limited to the following:

- 1) KRS 351.310 through 351.9901.
- 2) 805 KAR 4:005 through 4:165
- 3) Applicable rules and regulations issued by the Office of Mine Safety and Licensing.
- 4) Safety and health. OSHA, 29 CFR Part 1926, Subpart U.
- 5) Storage, security, and accountability. Bureau of Alcohol, Tobacco, and Firearms (BATF), 27 CFR Part 181.
- 6) Shipment. DOT, 49 CFR Parts 171-179, 390-397.

**3.1 Blaster-in-Charge.** Designate in writing a blaster-in-charge and any proposed alternates for the position. Submit documentation showing the blaster-in-charge, and alternates, have a valid Kentucky blaster's license. Ensure the blaster-in-charge or approved alternate is present at all times during blasting operations.

**3.2 Blasting Plans.** Blasting plans and reports are for quality control and record keeping purposes. Blasting reports are to be signed by the blaster-in-charge or the alternate blaster-in-charge. The general review and acceptance of blasting plans does not relieve the Contractor of the responsibility whatsoever for conformance to regulations or for obtaining the required results. All blasting plans shall be submitted to the Engineer. The Engineer will be responsible for submitting the plan to the Central Office Division of Construction and the Division of Mine Reclamation and Enforcement, Explosives and Blasting Branch at the following address: 2 Hudson Hollow, Frankfort, Kentucky, 40601.

**A) General Blasting Plan.** Submit a general blasting plan for acceptance at least 15 working days before drilling operations begin. Include, as a minimum, the following safety and procedural details:

- 1) Working procedures and safety precautions for storing, transporting, handling, detonating explosives. Include direction on pre and post blast audible procedures, methods of addressing misfires, and methods of addressing inclement weather, including lightning.
  - 2) Proposed product selection for both dry and wet holes. Furnish Manufacturer's TDS and MSDS for all explosives, primers, initiators, and other blasting devices.
  - 3) Proposed initiation and delay methods.
  - 4) Proposed format for providing all the required information for the site specific blasting shot reports.
- B) Preblast Meeting.** Prior to drilling operations, conduct a preblast meeting to discuss safety and traffic control issues and any site specific conditions that will need to be addressed. Ensure, at a minimum, that the Engineer or lead inspector, Superintendent, blaster-in-charge, and all personnel involved in the blasting operation are present. Site specific conditions include blast techniques; communication procedures; contingency plans and equipment for dealing with errant blast material. The conditions of the General Blasting plan will be discussed at this meeting. Record all revisions and additions made to the blasting plan and obtain written concurrence by the blaster-in-charge. Provide a copy of the signed blast plan to the Engineer along with the sign in sheet from the preblast meeting.

**3.3 Preblast Condition Survey and Vibration Monitoring and Control.** Before blasting, arrange for a preblast condition survey of nearby buildings, structures, or utilities, within 500 feet of the blast or that could be at risk from blasting damage. Provide the Engineer a listing of all properties surveyed and any owners denying entry or failing to respond. Notify the Engineer and occupants of buildings at risk at least 24 hours before blasting.

Limit ground vibrations and airblast to levels that will not exceed limits of 805 KAR 4:005 through 4:165. More restrictive levels may be specified in the Contract.

Size all blast designs based on vibration, distance to nearest building or utility, blast site geometry, atmospheric conditions and other factors. Ground vibrations are to be controlled according to the blasting standards and scaled distance formulas in 805 KAR 4:020 or by the use of seismographs as allowed in 805 KAR 4:030. The Department will require seismographs at the nearest allowable location to the protected site when blasting occurs within 500 feet of buildings, structures, or utilities.

**3.4 Blasting.** Drill and blast at the designated slope lines according to the blasting plan. Perform presplitting to obtain smooth faces in the rock and shale formations. Perform the presplitting before blasting and excavating the interior portion of the specified cross section at any location. The Department may allow blasting for fall benches and haul roads prior to presplitting when blasting is a sufficient distance from the final slope and results are satisfactory to the Engineer. Use the types of explosives and blasting accessories necessary to obtain the required results.

Free blast holes of obstructions for their entire depth. Place charges without caving the blast hole walls. Stem the upper portion of all blast holes with dry sand or other granular material passing the 3/8-inch sieve. Dry drill cuttings are acceptable for stemming when blasts are more than 800 feet from the nearest dwelling.

11D

Stop traffic during blasting operations when blasting near any road and ensure traffic does not pass through the Danger Zone. The blaster-in-charge will define the Danger Zone prior to each blast. Ensure traffic is stopped outside the Danger Zone, and in no case within 800 feet of the blast location.

Following a blast, stop work in the entire blast area, and check for misfires before allowing worker to return to excavate the rock.

Remove or stabilize all cut face rock that is loose, hanging, or potentially dangerous. Leave minor irregularities or surface variations in place if they do not create a hazard. Drill the next lift only after the cleanup work and stabilization work is complete.

When blasting operations cause fracturing of the final rock face, repair or stabilize it in an approved manner at no cost to the Department.

Halt blasting operations in areas where any of the following occur:

- 1) Slopes are unstable;
- 2) Slopes exceed tolerances or overhangs are created;
- 3) Backslope damage occurs;
- 4) Safety of the public is jeopardized;
- 5) Property or natural features are endangered;
- 6) Fly rock is generated; or
- 7) Excessive ground or airblast vibrations occur in an area where damage to buildings, structures, or utilities is possible.
- 8) The Engineer determines that materials have become unsuitable for blasting

Blasting operations may continue at a reasonable distance from the problem area or in areas where the problems do not exist. Make the necessary modifications to the blasting operations and perform a test blast to demonstrate resolution of the problem.

**A) Drill Logs.** Maintain a layout drawing designating hole numbers with corresponding drill logs and provide a copy of this information to the blaster prior to loading the hole. Ensure the individual hole logs completed by the driller(s) show their name; date drilled; total depth drilled; and depths and descriptions of significant conditions encountered during drilling that may affect loading such as water, voids, changes in rock type.

**B) Presplitting.** Conduct presplitting operations in conformance with Subsection 204.03.04 of the Standard Specifications for Road and Bridge Construction.

**3.5 Shot Report.** Maintain all shot reports on site for review by the Department. Within one day after a blast, complete a shot report according to the record keeping requirements of 805 KAR 4:050. Include all results from airblast and seismograph monitoring.

**3.6 Unacceptable Blasting.** When unacceptable blasting occurs, the Department will halt all blasting operations. Blasting will not resume until the Department completes its investigation and all concerns are addressed. A blast is unacceptable when it results in fragmentation beyond the final rock face, fly rock, excessive vibration or airblast, overbreak, damage to the final rock face or overhang. Assume the cost for all resulting damages to private and public property and hold the Department harmless.

11D

When an errant blast or fly rock causes damage to or blocks a road or conveyance adjacent to the roadway, remove all debris from the roadway as quickly as practicable and perform any necessary repairs. Additionally, when specified in the Contract, the Department will apply a penalty.

Report all blasting accidents to the Division of Mine Reclamation and Enforcement, Explosives and Blasting Branch at 502-564-2340.

**4.0 MEASUREMENT AND PAYMENT.** The Department will not measure this work for payment and will consider all items contained in this note to be incidental to either Roadway Excavation or Embankment-in-Place, as applicable. However, if the Engineer directs in writing slope changes, then the Department will pay for the second presplitting operation as Extra Work.

The Department will measure for payment material lying outside the typical section due to seams, broken formations, or earth pockets, including any earth overburden removed with this material, only when the work is performed under authorized adjustments.

The Department will not measure for payment any extra material excavated because of the drill holes being offset outside the designated slope lines.

The Department will not measure for payment any material necessary to be removed due to the inefficient or faulty blasting practices.

July 1, 2022



**SPECIAL NOTE FOR TURF REINFORCING MAT**

**1.0 DESCRIPTION.** Install turf reinforcement mat at locations specified in the Contract or as the Engineer directs. Section references herein are to the Department’s Current Standard Specifications for Road and Bridge Construction.

**2.0 MATERIALS.**

**2.1 Turf Reinforcement Mat (TRM).** Use a Turf Reinforcement Mat defined as permanent rolled erosion control product composed of non-degradable synthetic fibers, filaments, nets, wire mesh and/or other elements, processed into a three-dimensional matrix of sufficient thickness and from the Department’s List of Approved Materials. Mats must be 100% UV stabilized materials. For TRMs containing degradable components, all physical property values must be obtained on the non-degradable portion of the matting exclusively. Ensure product labels clearly show the manufacturer or supplier name, style name, and roll number. Ensure labeling, shipment and storage follows ASTM D-4873. The Department will require manufacturer to provide TRMs that are machine constructed web of mechanically or melt bonded nondegradable fibers entangled to form a three dimensional matrix. The Department will require all long term performance property values in table below to be based on non degradable portion of the matting alone. Approved methods include polymer welding, thermal or polymer fusion, or placement of fibers between two high strength biaxially oriented nets mechanically bound by parallel stitching with polyolefin thread. Ensure that mats designated in the plans as Type 4 mats, are not to be manufactured from discontinuous or loosely held together by stitching or glued netting or composites. Type 4 mats shall be composed of geosynthetic matrix that exhibits a very high interlock and reinforcement capacities with both soil and root systems and with high tensile modulus. The Department will require manufacturer to use materials chemically and biologically inert to the natural soil environments conditions. Ensure the blanket is smolder resistant without the use of chemical additives. When stored, maintain the protective wrapping and elevate the mats off the ground to protect them from damage. The Department will not specify these materials for use in heavily acidic coal seam areas or other areas with soil problems that would severally limit vegetation growth.

**2.2 Classifications**

The basis for selection of the type of mat required will be based on the long term shear stress level of the mat of the channel in question or the degree of slope to protect and will be designated in the contract. The Type 4 mats are to be used at structural backfills protecting critical structures, utility cuts, areas where vehicles may be expected to traverse the mat, channels with large heavy drift, channels with high shear stresses, and where higher factors of safety, very steep slopes and/or durability concerns are needed as determined by project team and designer and will be specified in the plans by designer.

Properties	Type 1	Type 2	Type 3	Type 4
Maximum Slope (H:V)	1:1	1:1	0.5:1	0.5:1
Un-vegetated Shear	≥ 2.0 lbs/ft <sup>2</sup> (≥ 96 Pa)	≥ 2.0 lb/ft <sup>2</sup> (≥ 96 Pa)"	≥ 2.0 lb/ft <sup>2</sup> (≥ 96 Pa)	≥ 2.0 lb/ft <sup>2</sup> (≥ 96 Pa)

Stress <sup>b, c, d</sup> ASTM D6460				
Vegetated Shear Stress <sup>c, d, e, f</sup> ASTM D6460	≥ 6.0 lbs/ft <sup>2</sup> (≥ 287 Pa)	≥ 8.0 lb/ft <sup>2</sup> (≥ 383 Pa)	≥ 10.0 lb/ft <sup>2</sup> (≥ 479 Pa)	≥ 12.0 lb/ft <sup>2</sup> (≥ 575 Pa)
Seedling Emergence <sup>d</sup> ASTM D7322	≥ 250%	≥ 250%	≥ 250%	≥ 250%
MD Material Tensile Strength <sup>d, f</sup> ASTM D6818	≥ 150 lbs/ft (≥ 2.2 kN/m)	≥ 175 lbs/ft (≥ 2.6 kN/m)	≥ 200 lbs/ft (≥ 2.9 kN/m)	≥ 1,500 lbs/ft (≥ 21.9 kN/m)
TD Material Tensile Strength <sup>d, f</sup> ASTM D6818	≥ 150 lbs/ft (≥ 2.2 kN/m)	≥ 175 lbs/ft (≥ 2.6 kN/m)	≥ 200 lbs/ft (≥ 2.9 kN/m)	≥ 1,500 lbs/ft (≥ 21.9 kN/m)
Mass Per Unit Area <sup>d</sup> ASTM D6566	≥ 8.0 oz/yd <sup>2</sup> (≥ 271 g/m <sup>2</sup> )	≥ 8.0 oz/yd <sup>2</sup> (≥ 271 g/m <sup>2</sup> )	≥ 8.0 oz/yd <sup>2</sup> (≥ 271 g/m <sup>2</sup> )	≥ 8.0 oz/yd <sup>2</sup> (≥ 271 g/m <sup>2</sup> )
Material Thickness <sup>d</sup> ASTM D6525	≥ 0.25 in (≥ 6.35 mm)	≥ 0.25 in (≥ 6.35 mm)	≥ 0.25 in (≥ 6.35 mm)	≥ 0.25 in (≥ 6.35 mm)
UV Stability <sup>c, e</sup> ASTM D4355	≥ 80% @ 500 hrs	≥ 80% @ 500 hrs	≥ 80% @ 1,000 hrs	≥ 90% @ 1,000 hrs

- a. For Type 4 mats, property values tested per ASTM D6818 and D6525 are reported as minimum average roll values (MARVs). MARVs are calculated as the typical minus two standard deviations. Statistically, it yields a 97.7% degree of confidence that any samples taken from quality assurance testing will exceed the value reported.
- b. Required minimum shear stress TRM (un-vegetated) can sustain without physical damage or excess erosion (> 12.7 mm (0.5 in.) soil loss during successive, minimum 30 minute flow events in large scale testing.
- c. Acceptable large-scale testing protocol may include ASTM D6460, or other independent testing deemed acceptable by the engineer. Large-scale performance testing typically involves limited soil types and vegetative stands, therefore it is recommended that an appropriate factor of safety be used in design and product selection (see Guidance Document for further information).
- d. Typical values are calculated as the average value, it yields a 50% degree of confidence that any samples taken from quality assurance testing will exceed the value reported.
- e. Required minimum shear stress TRM (fully vegetated) can sustain without physical damage or excess erosion (> 12.7 mm (0.5 in.) soil loss during successive, minimum 30 minute flow events in large scale testing.
- f. For TRMs containing degradable components, property values must be obtained on the non-degradable portion of the matting alone.

NOTE: TRMs are typically used in hydraulic applications, such as high flow ditches and channels, steep slopes, stream banks, and shorelines, where erosive forces may exceed the limits of natural, unreinforced vegetation or in areas where limited vegetation establishment is anticipated.

### 2.3 Quality Assurance Sampling, Testing, and Acceptance

- A) Performance Testing: The Department will require AASHTO’s NTPEP index testing. The Department will also require the manufacturer to perform internal MARV testing at a Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP) accredited laboratory for tensile strength, tensile elongation, mass per unit area, and thickness once every 24,000 yds of production or whatever rate is required to ensure

97.7% confidence under ASTM D4439& 4354. The Department will require Full scale testing for slope and channel applications shear stress shall be done under ASTM D 6459, ASTM D 6460-07 procedures.

- B) Provide TRM listed on the Department's List of Approved Materials. Prior to inclusion on the LAM, the manufacturer of TRM must meet the physical and performance criteria as outlined in the specification and submit a Letter Certifying compliance of the product under the above ASTM testing procedures and including a copy of report from Full Scale Independent Hydraulics Facility that Fully Vegetated Shear Stress meets shear stress requirements tested under D6459 and D6460-07.
- C) Contractors will provide a Letter of Certification from Manufacturer stating the product name, manufacturer, and that the product MARV product unit testing results meets Department criteria. Provide Letters once per project and for each product.
- D) Acceptance shall be in accordance with ASTM D-4759 based on testing performed by a Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP) accredited laboratory using Procedure A of ASTM D-4354.

Current mats meeting the above criteria are shown on the Department's List of Approved Materials. Mats that exceed the criteria for KYTC Types 1-4 are available. Contact an erosion control material supplier for more information.

**2.4 Fasteners.** When the mat manufacturer does not specify a specific fastener, use steel wire U-shaped staples with a minimum diameter of 0.09 inches (11 gauge), a minimum width of one inch and a minimum length of 12 inches. Use a heavier gauge when working in rocky or clay soils and longer lengths in sandy soils as directed by Engineer or Manufacturer's Representative. Provide staples with colored tops when requested by the Engineer.

**3.0 CONSTRUCTION.** Provide a Manufacturer's Representative on-site to oversee and approve the initial installation of the mat. When requested by the Engineer, provide a letter from the Manufacturer approving the installation. When there is a conflict between the Department's criteria and the Manufacturer's criteria, construct using the more restrictive. The Engineer and Manufacturer's Representative must approve all alternate installation methods prior to execution. Construct according to the Manufacturer's recommendations and the following as minimum installation technique:

**3.1 Site Preparation.** Smoothly grade areas to be treated with matting and compact. Remove large rocks, soil clods, vegetation, roots, and other sharp objects that could keep the mat from intimate contact with subgrade. Prepare seedbed by loosening the top 2 to 3 inch of soil.

**3.2 Installation.** Install mats according to Standard Drawing Sepias "Turf Mat Channel Installation" and "Turf Mat Slope Installation." Install mats at the specified elevation and alignment. Anchor the mats with staples with a minimum length of 12 inches. Use longer anchors for installations in sandy, loose, or wet soils as directed by the Engineer or Manufacturer's Representative. The mat should be in direct contact with the soil surface. Infill and overfill the mat with a minimum of ½" of soil as directed by the Manufacturer.

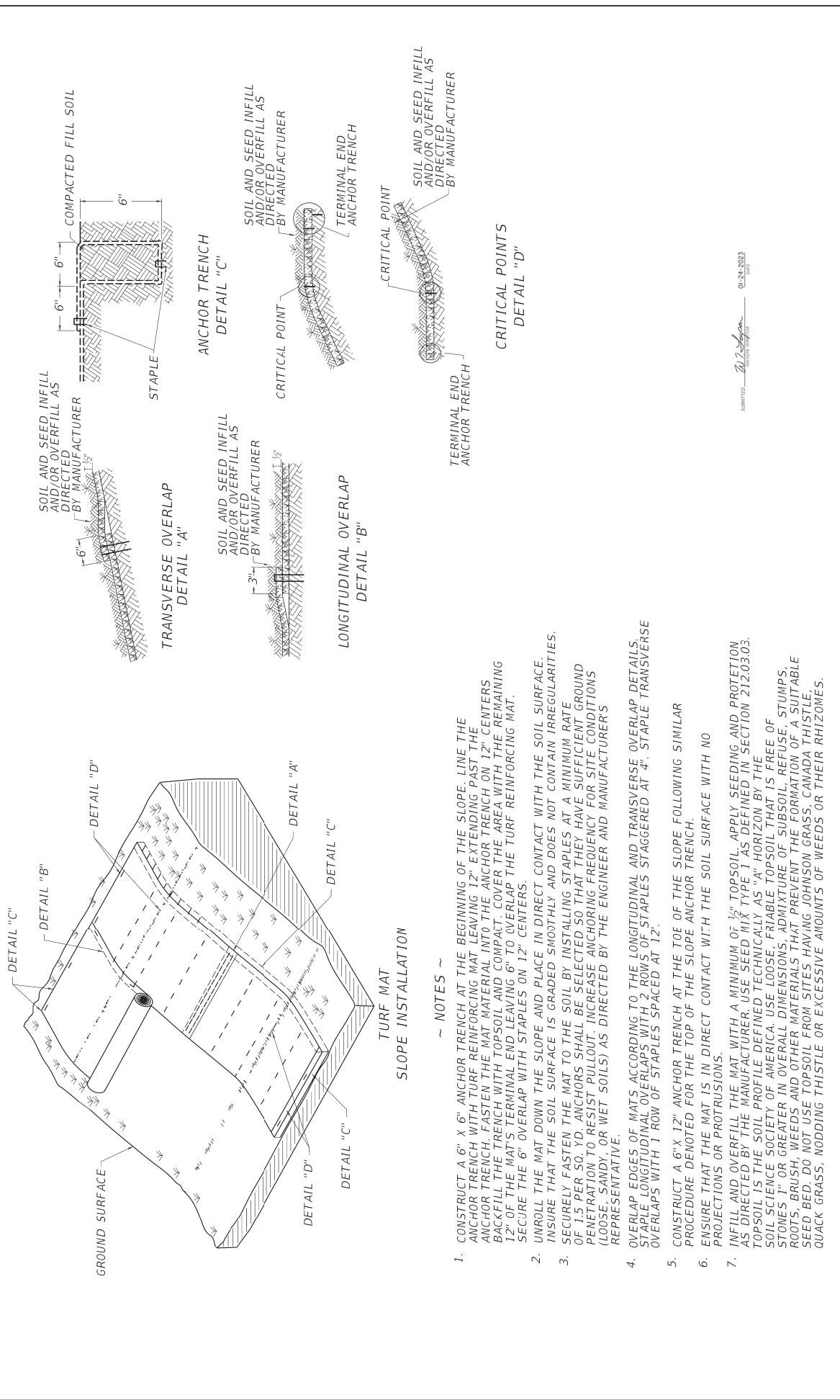
11F

**4.0 MEASUREMENT.** The Department will measure the quantity of Turf Reinforcement Mat by the square yard of surface covered. The Department will not measure preparation of the bed, providing a Manufacturer’s Representative, topsoil, or seeding for payment and will consider them incidental to the Turf Reinforcement Mat. The Department will not measure any reworking of slopes or channels for payment as it is considered corrective work and incidental to the Turf Reinforcement Mat. Seeding and protection will be an incidental item.

**5.0 PAYMENT.** The Department will make payment for the completed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
23274EN11F	Turf Reinforcement Mat 1	Square Yard
23275EN11F	Turf Reinforcement Mat 2	Square Yard
23276EN11F	Turf Reinforcement Mat 3	Square Yard
23277EN11F	Turf Reinforcement Mat 4	Square Yard

June 29, 2023



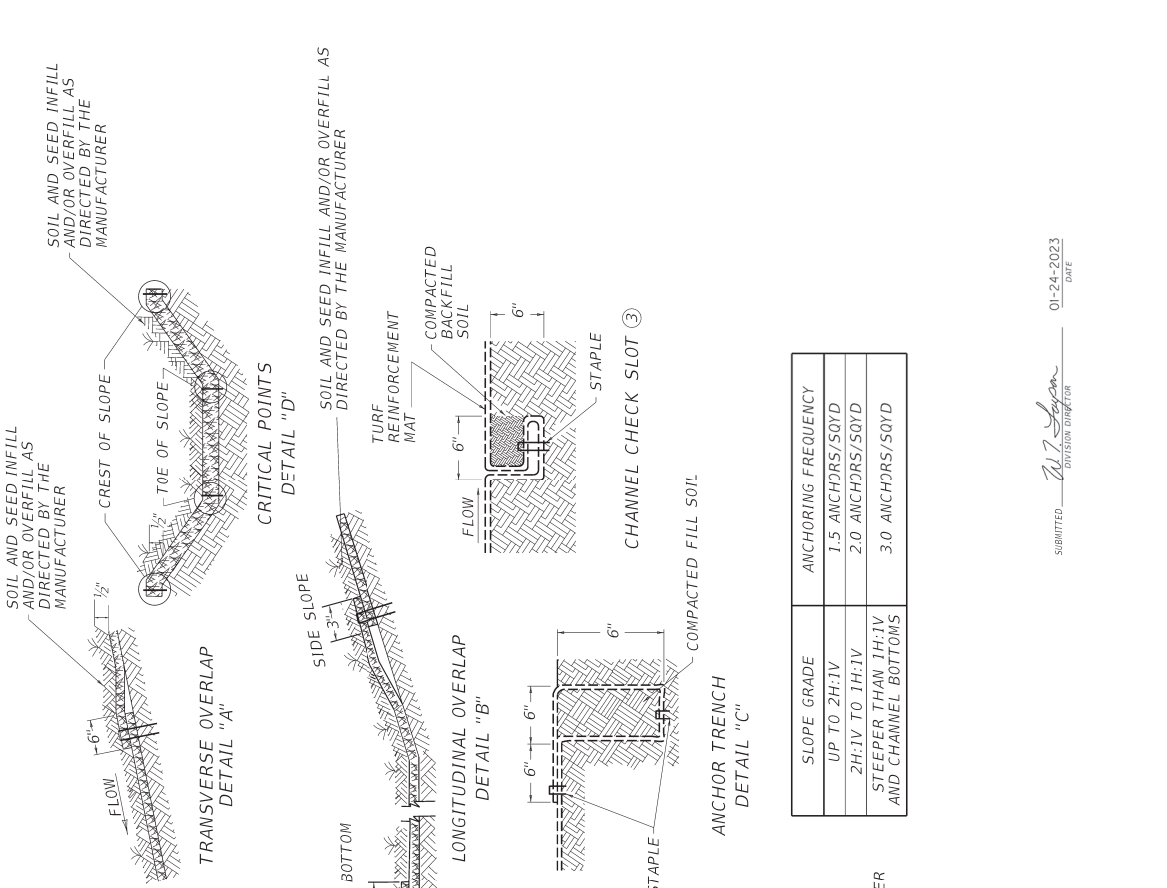
~ NOTES ~

1. CONSTRUCT A 6" X 6" ANCHOR TRENCH AT THE BEGINNING OF THE SLOPE LINE THE ANCHOR TRENCH WITH TURF REINFORCING MAT LEAVING 12" EXTENDING PAST THE ANCHOR TRENCH. FASTEN THE MAT MATERIAL INTO THE ANCHOR TRENCH ON 12" CENTERS BACKFILL THE TRENCH WITH TOPSOIL AND COMPACT COVER THE AREA WITH THE REMAINING 12" OF THE MAT'S TERMINAL END LEAVING 6" TO OVERLAP THE TURF REINFORCING MAT. SECURE THE 6" OVERLAP WITH STAPLES ON 12" CENTERS.
2. UNROLL THE MAT DOWN THE SLOPE AND PLACE IN DIRECT CONTACT WITH THE SOIL SURFACE. INSURE THAT THE SOIL SURFACE IS GRADED SMOOTHLY AND DOES NOT CONTAIN IRREGULARITIES.
3. SECURELY FASTEN THE MAT TO THE SOIL BY INSTALLING STAPLES AT A MINIMUM RATE OF 1.5 PER SQ. YD. ANCHORS SHALL BE SELECTED SO THAT THEY HAVE SUFFICIENT GROUND PENETRATION TO RESIST PULLOUT. INCREASE ANCHORING FREQUENCY FOR SITE CONDITIONS (LOOSE, SANDY, OR WET SOILS) AS DIRECTED BY THE ENGINEER AND MANUFACTURER'S REPRESENTATIVE.
4. OVERLAP EDGES OF MATS ACCORDING TO THE LONGITUDINAL AND TRANSVERSE OVERLAP DETAILS. STAPLE LONGITUDINAL OVERLAPS WITH 2 ROWS OF STAPLES STAGGERED AT 4". STAPLE TRANSVERSE OVERLAPS WITH 1 ROW OF STAPLES SPACED AT 12".
5. CONSTRUCT A 6" X 12" ANCHOR TRENCH AT THE TOE OF THE SLOPE FOLLOWING SIMILAR PROCEDURE DENOTED FOR THE TOP OF THE SLOPE ANCHOR TRENCH.
6. ENSURE THAT THE MAT IS IN DIRECT CONTACT WITH THE SOIL SURFACE WITH NO PROJECTIONS OR PROTUSIONS.
7. INFILL AND OVERFILL THE MAT WITH A MINIMUM OF 1/2" TOPSOIL. APPLY SEEDING AND PROTECTION AS DIRECTED BY THE MANUFACTURER. USE SEED MIX TYPE 1 AS DEFINED IN SECTION 212.03.03. TOPSOIL IS THE SOIL PROFILE DEFINED TECHNICALLY AS "A" HORIZON BY THE SOIL SCIENCE SOCIETY OF AMERICA. USE LOOSE, FRIABLE TOPSOIL THAT IS FREE OF STONES 1" OR GREATER IN OVERALL DIMENSIONS. ADMIXTURE OF SUBSOIL, REFUSE, STUMPS, ROOTS, BRUSH, WEEDS AND OTHER MATERIALS THAT PREVENT THE FORMATION OF A SUITABLE SEED BED. DO NOT USE TOPSOIL FROM SITES HAVING JOHNSON GRASS, CANADA THISTLE, QUACK GRASS, NODDING THISTLE OR EXCESSIVE AMOUNTS OF WEEDS OR THEIR RHIZOMES.

DESIGNED BY *J. J. Seay*  
DATE: 01-24-2023

ITEM NO.	COUNTY OF
SHEET NO.	

COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF HIGHWAYS  
DRAWING TITLE: SEPIA 22 - TURF MAT SLOPE INSTALLATION  
USER: cmlm000000



**TURF MAT CHANNEL INSTALLATION**

**~ NOTES ~**

1. CONSTRUCT A 6" X 6" ANCHOR TRENCH AT THE UPSTREAM END OF THE CHANNEL LINE. THE ANCHOR TRENCH WITH TURF REINFORCEMENT MAT LEAVING 12" EXTENDING PAST THE ANCHOR TRENCH. FILL THE MAT MATERIAL INTO THE ANCHOR TRENCH ON 12" CENTERS. BACKFILL THE TRENCH WITH SOIL AND COMPACT COVER THE AREA WITH THE REMAINING 1/2" OF THE MATS. TERMINAL END LEAVING 6" TO OVERLAP THE TURF REINFORCING MAT. SECURE THE 6" OVERLAP WITH STAPLES ON 12" CENTERS.
2. UNROLL THE MAT PARALLEL TO THE PRIMARY DIRECTION OF WATER FLOW AND PLACE IN DIRECT CONTACT WITH THE SOIL SURFACE. INSURE THAT THE SOIL SURFACE IS GRADED SMOOTHLY AND DOES NOT CONTAIN IRREGULARITIES.
3. EXCAVATE 6" X 6" CHECK SLOTS EVERY 25' ALONG THE LENGTH OF THE CHANNEL. LINE THE SIDE AND BOTTOM OF THE SLOT WITH THE MAT AND THEN PULL BACK OVER, FASTEN WITH STAPLES ON 12" CENTERS. FILL THE CHECK SLOT WITH TOPSOIL, COMPACT, AND CONTINUE UNROLLING THE MAT DOWN THE CHANNEL.
4. CHECK SLOTTING OR TERMINAL ANCHOR TRENCH. IF MORE THAN ONE SECTION OF MAT, AS SHOWN IN THE TRANSVERSE OVERLAP DETAIL, IS USED OVERLAP UPSTREAM MATS OVER TOP OF THE DOWNSTREAM MAT 6" AND SECURE IF MATS ARE PLACED PARALLEL TO EACH OTHER ALONG THE CHANNEL. PLACE CHANNEL SECTIONS FIRST, THEN OVERLAP THE DOWNSTREAM MATS. FOR THE CHANNEL CHECK SLOTS, SHOW THE LONGITUDINAL OVERLAP DETAIL AND SECURE WITH STAPLES ON 12" CENTERS. PROCEED UP THE SIDE SLOPES IN THE SAME MANNER UNTIL THE TOP OF CHANNEL IS REACHED.
5. SECURE MATS WHILE UNROLLING ON SIDESLOPES AND CHANNEL BOTTOMS WITH STAPLES AT A FREQUENCY THE TABLE INDICATES. USE STAPLES HAVING SUFFICIENT GROUND PENETRATION TO RESIST PULLOUT. INCREASE ANCHORING FREQUENCY AS DIRECTED BY THE ENGINEER AND MANUFACTURER'S REPRESENTATIVE.
6. INFILL AND OVERFILL THE MAT WITH A MINIMUM OF 1/2" TOPSOIL. APPLY SEEDING AND PROTECTION AS DIRECTED BY THE MANUFACTURER. USE SEED MIX TYPE 1 AS DEFINED IN SECTION 212.03.03. TOPSOIL IS THE SOIL PROFILE DEFINED TECHNICALLY AS "A" HORIZON BY THE SOIL SCIENCE SOCIETY OF AMERICA. USE LOOSE, FRIABLE TOPSOIL THAT IS FREE OF STONES 1" OR GREATER IN OVERALL DIMENSIONS, ADMIXTURE OF SUBSOIL, REFUSE, STUMPS, ROOTS, BRUSH, WEEDS AND OTHER MATERIALS THAT PREVENT THE FORMATION OF A SUITABLE SEED BED. DO NOT USE TOPSOIL FROM SITES HAVING JOHNSON GRASS, CANADA THISTLE, QUACK GRASS, NODDING THISTLE OR EXCESSIVE AMOUNTS OF WEEDS OR THEIR RHIZOMES.

SLOPE GRADE	ANCHORING FREQUENCY
UP TO 2H:1V	1.5 ANCHORS/SQYD
2H:1V TO 1H:1V	2.0 ANCHORS/SQYD
STEEPER THAN 1H:1V AND CHANNEL BOTTOMS	3.0 ANCHORS/SQYD

SUBMITTED: *[Signature]* DIVISION DIRECTOR  
DATE: 01-24-2023

ITEM NO. COUNTY OF  
SHEET NO.



### SPECIAL NOTE FOR BARCODE LABEL ON PERMANENT SIGNS

**1.0 DESCRIPTION.** Install barcode label on sheeting signs. Section references herein are to the Department’s Standard Specifications for Road and Bridge Construction, current edition.

**2.0 MATERIALS.** The Department will provide the Contractor with a 2 inch x 1 inch foil barcode label for each permanent sheeting sign. A unique number will be assigned to each barcode label.

The Contractor shall contact the Operations and Pavement Management Branch in the Division of Maintenance at (502) 564-4556 to obtain the barcode labels.

**3.0 CONSTRUCTION.** Apply foil barcode label in the lower right quadrant of the sign back. Signs where the bottom edge is not parallel to the ground, the lowest corner of the sign shall serve as the location to place the barcode label. The barcode label shall be placed no less than one-inch and no more than three inches from any edge of the sign. The barcode must be placed so that the sign post does not cover the barcode label.

Barcodes shall be applied in an indoor setting with a minimum air temperature of 50°F or higher. Prior to application of the barcode label, the back of the sign must be clean and free of dust, oil, etc. If the sign is not clean, an alcohol swab shall be used to clean the area. The area must be allowed to dry prior to placement of the barcode label.

Data for each sign shall include the barcode number, MUTCD reference number, sheeting manufacturer, sheeting type, manufacture date, color of primary reflective surface, installation date, latitude and longitude using the North American Datum of 1983 (NAD83) or the State Plane Coordinates using an x and y ordinate of the installed location.

Data should be provided electronically on the TC 71-229 Sign Details Information and TC 71-230 Sign Assembly Information forms. The Contractor may choose to present the data in a different format provided that the information submitted to the Department is equivalent to the information required on the Department TC forms. The forms must be submitted in electronic format regardless of which type of form is used. The Department will not accept PDF or handwritten forms. These completed forms must be submitted to the Department prior to final inspection of the signs. The Department will not issue formal acceptance for the project until the TC 71-229 and TC-230 electronic forms are completed for all signs and sign assemblies on the project.

**4.0 MEASUREMENT.** The Department will measure all work required for the installation of the barcode label and all work associated with completion and submission of the sign inventory data (TC 71-229 and TC 71-230).

The installation of the permanent sign will be measured in accordance to Section 715.

**5.0 PAYMENT.** The Department will make payment for the completed and accepted quantities under the following:

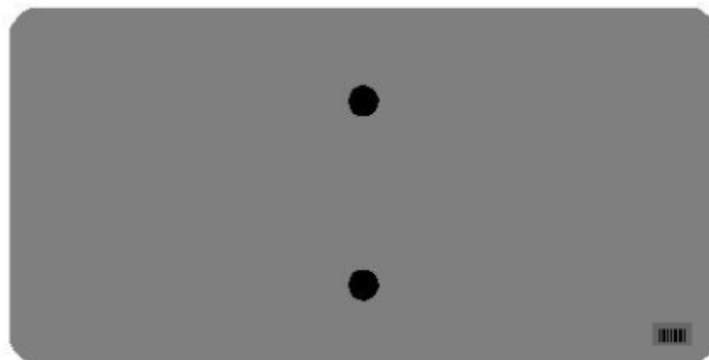
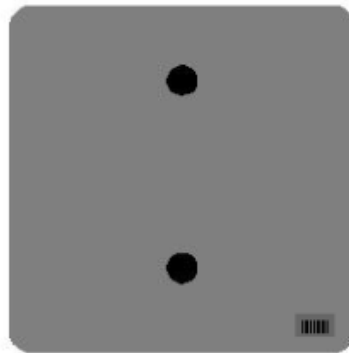
<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24631EC	Barcode Sign Inventory	Each

The Department will not make payment for this item until all barcodes are installed and sign inventory is complete on every permanent sign installed on the project. The Department will make payment for installation of the permanent sign in accordance to Section 715. The Department will consider payment as full compensation for all work required under this special note.

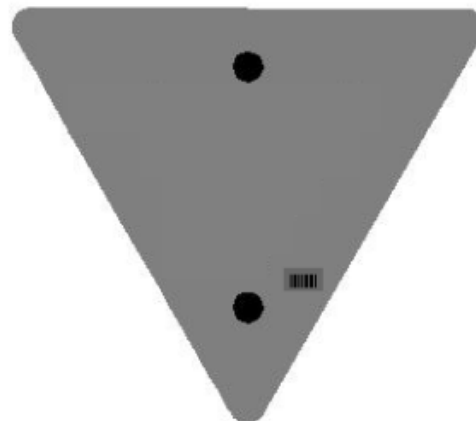
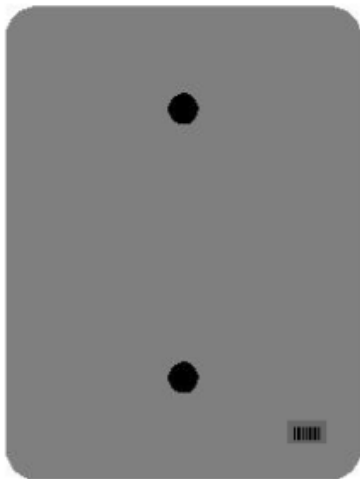
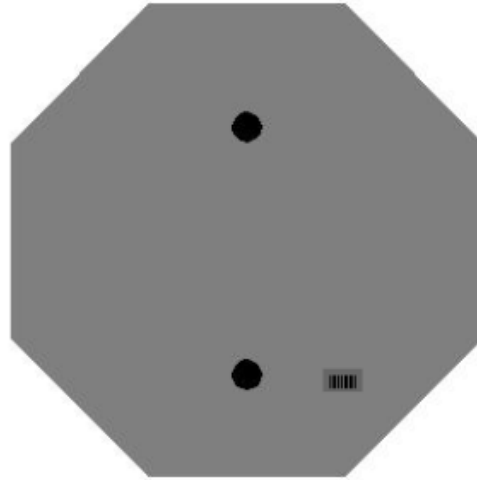
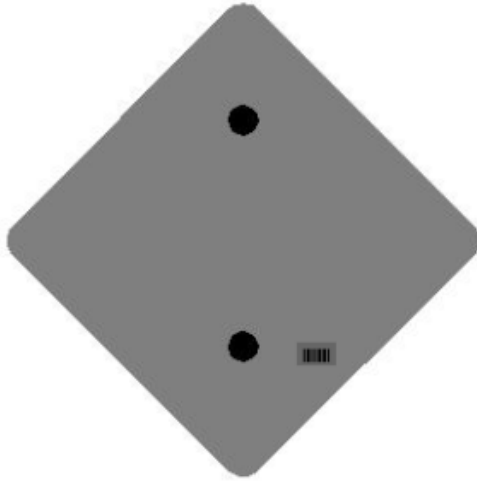
### One Sign Post



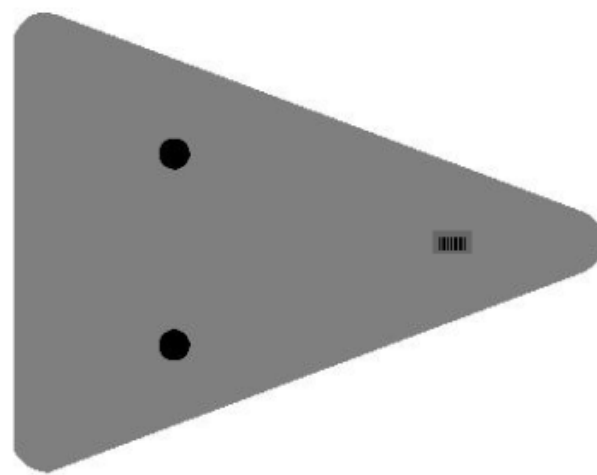
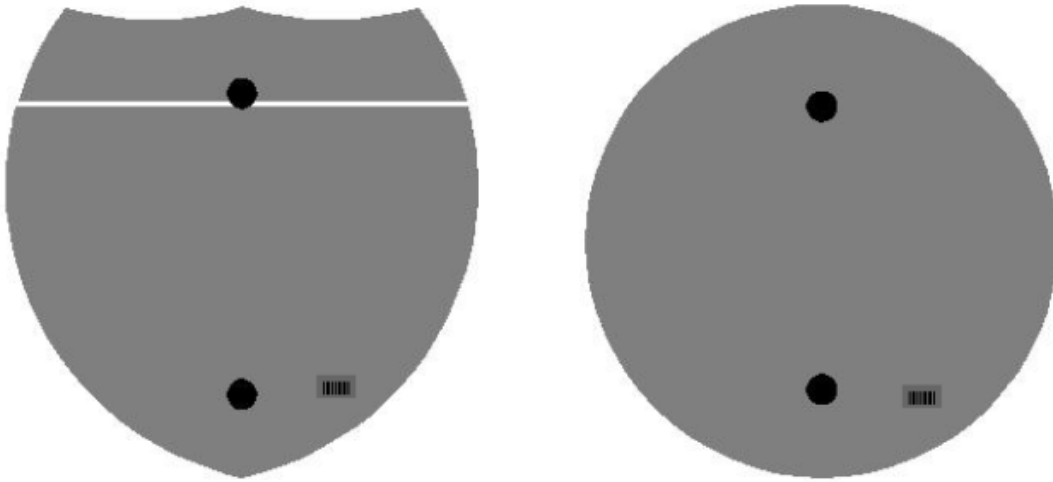
↑  
2" Wide Post



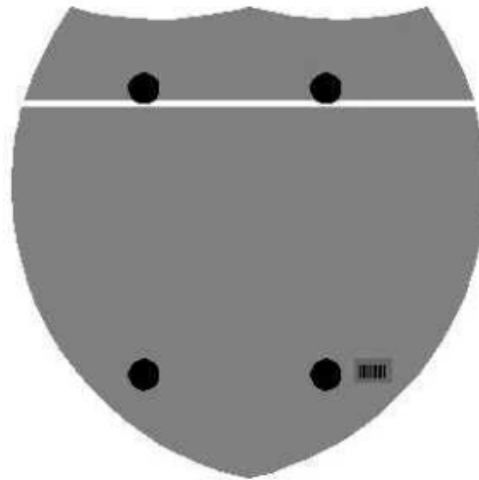
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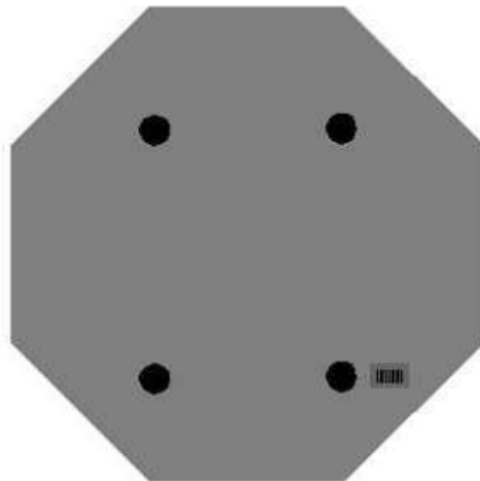
### One Sign Post



### Double Sign Post



Interstate  
Shield

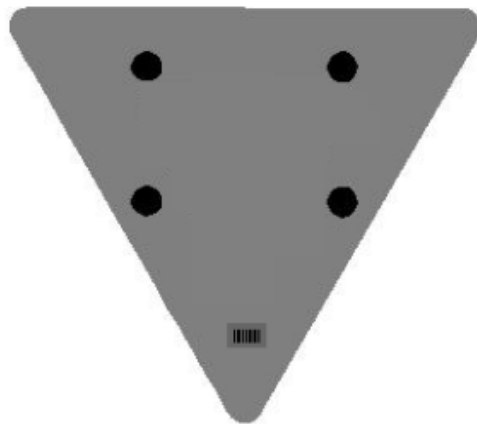


48" Stop

## 2 Post Signs



↑  
2" Wide Post





**SPECIAL NOTE FOR LONGITUDINAL PAVEMENT JOINT ADHESIVE**

1. DESCRIPTION. This specification covers the requirements and practices for applying an asphalt adhesive material to the longitudinal joint of the surface course of an asphalt pavement. Apply the adhesive to the face of longitudinal joint between driving lanes for the first lane paved. Then, place and compact the adjacent lane against the treated face to produce a strong, durable, waterproof longitudinal joint.
2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Joint Adhesive. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide an adhesive conforming to the following requirements:

Property	Specification	Test Procedure
Viscosity, 400 ° F (Pa·s)	4.0 – 10.0	ASTM D 4402
Cone Penetration, 77 ° F	60 – 100	ASTM D 5329
Flow, 140 ° F (mm)	5.0 max.	ASTM D 5329
Resilience, 77 ° F (%)	30 min.	ASTM D 5329
Ductility, 77 ° F (cm)	30.0 min.	ASTM D 113
Ductility, 39 ° F (cm)	30.0 min.	ASTM D 113
Tensile Adhesion, 77 ° F (%)	500 min.	ASTM D 5329, Type II
Softening Point, ° F	171 min.	AASHTO T 53
Asphalt Compatibility	Pass	ASTM D 5329

Ensure the temperature of the pavement joint adhesive is between 380 and 410 °F when the material is extruded in a 0.125-inch-thick band over the entire face of the longitudinal joint.

2.2. Equipment.

2.2.1 Melter Kettle. Provide an oil-jacketed, double-boiler, melter kettle equipped with any needed agitation and recirculating systems.

2.2.2 Applicator System. Provide a pressure-feed-wand applicator system with an applicator shoe attached.

2.3 Personnel. Ensure a technical representative from the manufacturer of the pavement joint adhesive is present during the initial construction activities and available upon the request of the Engineer.

3. CONSTRUCTION.

3.1 Surface Preparation. Prior to the application of the pavement joint adhesive, ensure the face of the longitudinal joint is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the joint face by the use of compressed air.

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Ensure this preparation process occurs shortly before application to prevent the return of debris on the joint face.

3.2 Pavement Joint Adhesive Application. Ensure the ambient temperature is a minimum of 40 ° F during the application of the pavement joint adhesive. Prior to applying the adhesive, demonstrate competence in applying the adhesive according to this note to the satisfaction of the Engineer. Heat the adhesive in the melter kettle to the specified temperature range. Pump the adhesive from the melter kettle through the wand onto the vertical face of the cold joint. Apply the adhesive in a continuous band over the entire face of the longitudinal joint. Do not use excessive material in either thickness or location. Ensure the edge of the extruded adhesive material is flush with the surface of the pavement. Then, place and compact the adjacent lane against the joint face. Remove any excessive material extruded from the joint after compaction (a small line of material may remain).

3.3 Pavement Joint Adhesive Certification. Furnish the joint adhesive's certification to the Engineer stating the material conforms to all requirements herein prior to use.

3.4 Sampling and Testing. The Department will require a random sample of pavement joint adhesive from each manufacturer's lot of material. Extrude two 5 lb. samples of the heated material and forward the sample to the Division of Materials for testing. Reynolds oven bags, turkey size, placed inside small cardboard boxes or cement cylinder molds have been found suitable. Ensure the product temperature is 400°F or below at the time of sampling.

4. MEASUREMENT. The Department will measure the quantity of Pavement Joint Adhesive in linear feet. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of Pavement Joint Adhesive, the cleaning of the joint face, or furnishing and placing the adhesive. The Department will consider all such items incidental to the Pavement Joint Adhesive.
5. PAYMENT. The Department will pay for the Pavement Joint Adhesive at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

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Pavement Joint Adhesive Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Joint Adhesive Referenced in Subsection 2.1.1						
Viscosity, 400 ° F (Pa•s) ASTM D 3236	4.0-10.0	3.5-10.5	3.0-3.4 10.6-11.0	2.5-2.9 11.1-11.5	2.0-2.4 11.6-12.0	≤1.9 ≥ 12.1
Cone Penetration, 77 ° F ASTM D 5329	60-100	57-103	54-56 104-106	51-53 107-109	48-50 110-112	≤ 47 ≥ 113
Flow, 140 ° F (mm) ASTM D 5329	≤ 5.0	≤ 5.5	5.6-6.0	6.1-6.5	6.6-7.0	≥ 7.1
Resilience, 77 ° F (%) ASTM D 5329	≥ 30	≥ 28	26-27	24-25	22-23	≤ 21
Tensile Adhesion, 77 ° F (%) ASTM D 5329	≥ 500	≥ 490	480-489	470-479	460-469	≤ 459
Softening Point, ° F AASHTO T 53	≥ 171	≥ 169	166-168	163-165	160-162	≤ 159
Ductility, 77 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9
Ductility, 39 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9

Code  
20071EC

Pay Item  
Joint Adhesive

Pay Unit  
Linear Foot

May 7, 2014

## **PART III**

### **EMPLOYMENT, WAGE AND RECORD REQUIREMENTS**

FHWA-1273 – Revised October 23, 2023

**REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

**ATTACHMENTS**

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

**I. GENERAL**

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

**II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)**

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action



within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

#### **6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

#### **10. Assurances Required:**

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

**III. NONSEGREGATED FACILITIES**

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

**IV. DAVIS-BACON AND RELATED ACT PROVISIONS**

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

**1. Minimum wages (29 CFR 5.5)**

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov). The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov), refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

## 2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

### 3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements (1) Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements (1) Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker ( e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.



(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access (1) Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

#### 4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices (1) Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

**6. Subcontracts.** The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

**9. Disputes concerning labor standards.** As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.** a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

**11. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

## V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or



mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)\* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

\* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

**3. Withholding for unpaid wages and liquidated damages**

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

**4. Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

**5. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

**VI. SUBLETTING OR ASSIGNING THE CONTRACT**

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

## VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

## VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

**IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)**

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

**X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

**1. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

\* \* \* \* \*

**2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

\*\*\*\*\*

**3. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

\*\*\*\*\*

**4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

\*\*\*\*\*

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or

cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**XII. USE OF UNITED STATES-FLAG VESSELS:**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS** (23 CFR 633, Subpart B, Appendix B)

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.



**KENTUCKY TRANSPORTATION CABINET  
DEPARTMENT OF HIGHWAYS**

**EMPLOYMENT REQUIREMENTS  
RELATING TO  
NONDISCRIMINATION OF EMPLOYEES  
(APPLICABLE TO FEDERAL-AID SYSTEM CONTRACTS)**

**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.

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

### Standard Title VI/Non-Discrimination Assurances

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, **Federal Highway Administration**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the **Federal Highway Administration** to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the **Federal Highway Administration**, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the **Federal Highway Administration** may determine to be appropriate, including, but not limited to:
  - a. withholding payments to the contractor under the contract until the contractor complies; and/or
  - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the **Federal Highway Administration** may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

### Standard Title VI/Non-Discrimination Statutes and Authorities

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 -- 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*)

## 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

"General Decision Number: KY20240040 05/31/2024

Superseded General Decision Number: KY20230040

State: Kentucky

Construction Type: Highway

Counties: Allen, Ballard, Butler, Caldwell, Calloway, Carlisle, Christian, Crittenden, Daviess, Edmonson, Fulton, Graves, Hancock, Henderson, Hickman, Hopkins, Livingston, Logan, Lyon, Marshall, McCracken, McLean, Muhlenberg, Ohio, Simpson, Todd, Trigg, Union, Warren and Webster Counties in Kentucky.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

<p>If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:</p>	<ul style="list-style-type: none"> <li>. Executive Order 14026 generally applies to the contract.</li> <li>. The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.</li> </ul>
<p>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:</p>	<ul style="list-style-type: none"> <li>. Executive Order 13658 generally applies to the contract.</li> <li>. The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.</li> </ul>

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/05/2024
1	02/09/2024
2	03/15/2024
3	05/31/2024

BRIN0004-002 06/01/2023

BALLARD, BUTLER, CALDWELL, CARLISLE, CRITTENDEN, DAVIESS, EDMONSON, FULTON, GRAVES, HANCOCK, HENDERSON, HICKMAN, HOPKINS, LIVINGSTON, LYON, MARSHALL, MCCRACKEN, MCLEAN, MUHLENBERG, OHIO, UNION, and WEBSTER COUNTIES

	Rates	Fringes
BRICKLAYER		
Ballard, Caldwell, Carlisle, Crittenden, Fulton, Graves, Hickman, Livingston, Lyon, Marshall, and McCracken Counties.....	\$ 34.17	19.60
Butler, Edmonson, Hopkins, Muhlenberg, and Ohio Counties.....	\$ 32.28	15.95
Daviess, Hancock, Henderson, McLean, Union, and Webster Counties.....	\$ 34.17	19.60

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BRTN0004-005 06/01/2023

ALLEN, CALLOWAY, CHRISTIAN, LOGAN, SIMPSON, TODD, TRIGG, and WARREN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 32.28	15.95

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\* CARP0357-002 04/01/2024

	Rates	Fringes
CARPENTER.....	\$ 32.90	23.37
DIVER.....	\$ 49.73	23.37
PILEDRIVERMAN.....	\$ 33.40	23.37

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ELEC0369-006 05/28/2023

BUTLER, EDMONSON, LOGAN, TODD & WARREN COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 35.39	20.45

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ELEC0429-001 06/01/2022

ALLEN & SIMPSON COUNTIES:



	Rates	Fringes
ELECTRICIAN.....	\$ 31.55	14.08

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ELEC0816-002 07/01/2023

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN,  
FULTON (Except a 5 mile radius of City Hall in Fulton), GRAVES,  
HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN & TRIGG COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 34.94	28%+8.35

Cable spicers receive \$.25 per hour additional.

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ELEC1701-003 07/01/2023

DAVISS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, MUHLENBERG, OHIO,  
UNION & WEBSTER COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 35.60	8.35+30.8%

Cable spicers receive \$.25 per hour additional.

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ELEC1925-002 01/01/2024

FULTON COUNTY (Up to a 5 mile radius of City Hall in Fulton):

	Rates	Fringes
CABLE SPLICER.....	\$ 28.20	15.27
ELECTRICIAN.....	\$ 27.95	15.26

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ENGI0181-017 07/01/2023

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 38.55	18.60
GROUP 2.....	\$ 35.69	18.60
GROUP 3.....	\$ 36.14	18.60
GROUP 4.....	\$ 35.37	18.60

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - A-Frame Winch Truck; Auto Patrol; Backfiller;  
Batcher Plant; Bituminous Paver; Bituminous Transfer  
Machine; Boom Cat; Bulldozer; Mechanic; Cableway; Carry-All  
Scoop; Carry Deck Crane; Central Compressor Plant; Cherry  
Picker; Clamshell; Concrete Mixer (21 cu. ft. or Over);  
Concrete Paver; Truck-Mounted Concrete Pump; Core Drill;  
Crane; Crusher Plant; Derrick; Derrick Boat; Ditching &  
Trenching Machine; Dragline; Dredge Operator; Dredge  
Engineer; Elevating Grader & Loaders; Grade-All; Gurries;  
Heavy Equipment Robotics Operator/Mechanic; High Lift;  
Hoe-Type Machine; Hoist (Two or More Drums); Hoisting  
Engine (Two or More Drums); Horizontal Directional Drill  
Operator; Hydrocrane; Hyster; KeCal Loader; LeTourneau;  
Locomotive; Mechanic; Mechanically Operated Laser Screed;

Mechanic Welder; Mucking Machine; Motor Scraper; Orangepeel Bucket; Overhead Crane; Piledriver; Power Blade; Pumpcrete; Push Dozer; Rock Spreader, attached to equipment; Rotary Drill; Roller (Bituminous); Rough Terrain Crane; Scarifier; Scoopmobile; Shovel; Side Boom; Subgrader; Tailboom; Telescoping Type Forklift; Tow or Push Boat; Tower Crane (French, German & other types); Tractor Shovel; Truck Crane; Tunnel Mining Machines, including Moles, Shields or similar types of Tunnel Mining Equipment

GROUP 2 - Air Compressor (Over 900 cu. ft. per min.); Bituminous Mixer; Boom Type Tamping Machine; Bull Float; Concrete Mixer (Under 21 cu. ft.); Dredge Engineer; Electric Vibrator; Compactor/Self-Propelled Compactor; Elevator (One Drum or Buck Hoist); Elevator (When used to Hoist Building Material); Finish Machine; Firemen & Hoist (One Drum); Flexplane; Forklift (Regardless of Lift Height); Form Grader; Joint Sealing Machine; Outboard Motor Boat; Power Sweeper (Riding Type); Roller (Rock); Ross Carrier; Skid Mounted or Trailer Mounted Concrete Pump; Skid Steer Machine with all Attachments; Switchman or Brakeman; Throttle Valve Person; Tractair & Road Widening Trencher; Tractor (50 H.P. or Over); Truck Crane Oiler; Tugger; Welding Machine; Well Points;& Whirley Oiler

GROUP 3 -All Off Road Material Handling Equipment, including Articulating Dump Trucks; Greaser on Grease Facilities servicing Heavy Equipment

GROUP 4 - Bituminous Distributor; Burlap & Curing Machine; Cement Gun; Concrete Saw; Conveyor; Deckhand Oiler; Grout Pump; Hydraulic Post Driver; Hydro Seeder; Mud Jack; Oiler; Paving Joint Machine; Power Form Handling Equipment; Pump; Roller (Earth); Steerman; Tamping Machine; Tractor (Under 50 H.P.); & Vibrator

CRANES - with booms 150 ft. & Over (Including JIB), and where the length of the boom in combination with the length of the piling equals or exceeds 150 ft. - \$1.00 above Group 1 rate

EMPLOYEES ASSIGNED TO WORK BELOW GROUND LEVEL ARE TO BE PAID 10% ABOVE BASIC WAGE RATE. THIS DOES NOT APPLY TO OPEN CUT WORK.

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IRON0070-005 06/01/2023

BUTLER COUNTY (Eastern eighth, including the Townships of Decker, Lee & Tilford);  
EDMONSON COUNTY (Northern three-fourths, including the Townships of Asphalt, Bee Spring, Brownsville, Grassland, Huff, Kyrock, Lindseyville, Mammoth Cave, Ollie, Prosperity, Rhoda, Sunfish & Sweden)

	Rates	Fringes
IRONWORKER		
Structural; Ornamental;		
Reinforcing; Precast		
Concrete Erectors.....	\$ 32.59	24.50

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IRON0103-004 04/01/2023

DAVISS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, OHIO, UNION & WEBSTER COUNTIES

BUTLER COUNTY (Townships of Aberdeen, Bancock, Casey, Dexterville, Dunbar, Elfie, Gilstrap, Huntsville, Logansport, Monford, Morgantown, Provo, Rochester, South Hill & Welchs Creek);

CALDWELL COUNTY (Northeastern third, including the Township of Creswell);

CHRISTIAN COUNTY (Northern third, including the Townships of Apex, Crofton, Kelly, Mannington & Wynns);

CRITTENDEN COUNTY (Northeastern half, including the Townships of Grove, Mattoon, Repton, Shady Grove & Tribune);

MUHLENBERG COUNTY (Townships of Bavier, Beech Creek Junction, Benton, Brennen, Browder, Central City, Cleaton, Depoy, Drakesboro, Eunis, Graham, Hillside, Luzerne, Lynn City, Martwick, McNary, Millport, Moorman, Nelson, Paradise, Powderly, South Carrollton, Tarina & Weir)

	Rates	Fringes
Ironworkers:.....	\$ 31.99	26.20
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IRON0492-003 05/01/2023		

ALLEN, LOGAN, SIMPSON, TODD & WARREN COUNTIES

BUTLER COUNTY (Southern third, including the Townships of Boston, Berrys Lick, Dimple, Jetson, Quality, Sharer, Sugar Grove & Woodbury);

CHRISTIAN COUNTY (Eastern two-thirds, including the Townships of Bennettstown, Casky, Herndon, Hopkinsville, Howell, Masonville, Pembroke & Thompsonville);

EDMONSON COUNTY (Southern fourth, including the Townships of Chalybeate & Rocky Hill);

MUHLENBERG COUNTY (Southern eighth, including the Townships of Dunnior, Penrod & Rosewood)

	Rates	Fringes
Ironworkers:.....	\$ 32.53	17.23
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IRON0782-006 08/01/2023		

BALLARD, CALLOWAY, CARLISLE, FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN & TRIGG COUNTIES

CALDWELL COUNTY (Southwestern two-thirds, including the Townships of Cedar Bluff, Cider, Claxton, Cobb, Crowtown, Dulaney, Farmersville, Fredonia, McGowan, Otter Pond & Princeton);

CHRISTIAN COUNTY (Western third, Excluding the Townships of Apex, Crofton, Kelly, Mannington, Wynns, Bennettstown, Casky, Herndon, Hopkinsville, Howell, Masonville, Pembroke & Thompsonville);

CRITTENDEN COUNTY (Southwestern half, including the Townships of Crayne, Dycusburg, Frances, Marion, Mexico, Midway, Sheridan & Told)

	Rates	Fringes
Ironworkers:		
Projects with a total contract cost of \$20,000,000.00 or above.....	\$ 34.75	25.52

All Other Work.....\$ 33.01 25.52

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LAB00189-005 07/01/2023

BALLARD, CALLOWAY, CARLISLE, FULTON, GRAVES, HICKMAN,  
LIVINGSTON, LYON, MARSHALL & MCCrackEN COUNTIES

Rates Fringes

Laborers:

GROUP 1.....	\$ 23.96	17.57
GROUP 2.....	\$ 24.21	17.57
GROUP 3.....	\$ 24.26	17.57
GROUP 4.....	\$ 24.86	17.57

LABORER CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Blaster; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

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LAB00189-006 07/01/2023

ALLEN, BUTLER, CALDWELL, CHRISTIAN, DAVIESS, EDMONSON, HANCOCK,  
HOPKINS, LOGAN, MCLEAN, MUHLENBERG, OHIO, SIMPSON, TODD, TRIGG  
& WARREN COUNTIES

Rates Fringes

Laborers:

GROUP 1.....	\$ 23.96	17.57
GROUP 2.....	\$ 24.26	17.57
GROUP 3.....	\$ 24.21	17.57
GROUP 4.....	\$ 24.86	17.57

LABORER CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Blaster; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

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LAB00561-001 07/01/2023

CRITTENDEN, HENDERSON, UNION & WEBSTER COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 24.81	17.60
GROUP 2.....	\$ 25.06	17.60
GROUP 3.....	\$ 25.11	17.60
GROUP 4.....	\$ 25.71	17.60

LABORER CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines;

Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Blaster; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

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PAIN0032-002 09/01/2023

BALLARD COUNTY

	Rates	Fringes
Painters:		
Bridges.....	\$ 36.12	20.97
All Other Work.....	\$ 33.82	20.97

Spray, Blast, Steam, High & Hazardous (Including Lead Abatement) and All Epoxy - \$1.00 Premium

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PAIN0118-003 06/01/2014

EDMONSON COUNTY:

	Rates	Fringes
Painters:		
Brush & Roller.....	\$ 18.50	11.97
Spray, Sandblast, Power Tools, Waterblast & Steam Cleaning.....	\$ 19.50	11.97

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\* PAIN0156-006 04/01/2024

DAVISS, HANCOCK, HENDERSON, MCLEAN, OHIO, UNION & WEBSTER



COUNTIES

	Rates	Fringes
Painters:		
BRIDGES		
GROUP 1.....	\$ 30.77	20.30
GROUP 3.....	\$ 31.77	20.30
GROUP 4.....	\$ 35.00	20.30
ALL OTHER WORK:		
GROUP 1.....	\$ 29.62	20.30
GROUP 2.....	\$ 30.37	20.30
GROUP 3.....	\$ 30.62	20.30
GROUP 4.....	\$ 31.77	20.30

PAINTER CLASSIFICATIONS

GROUP 1 - Brush & Roller

GROUP 2 - Plasterers

GROUP 3 - Spray; Sandblast; Power Tools; Waterblast;  
Steamcleaning; Brush & Roller of Mastics, Creosotes, Kwinch  
Koate & Coal Tar Epoxy

GROUP 4 - Spray of Mastics, Creosotes, Kwinch Koate & Coal  
Tar Epoxy

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PAIN0500-002 06/01/2023

CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN, FULTON,  
GRAVES, HICKMAN, HOPKINS, LIVINGSTON, LYON, MARSHALL, MCCRACKEN  
& TRIGG COUNTIES:

	Rates	Fringes
Painters:		
Bridges.....	\$ 30.00	15.40
All Other Work.....	\$ 23.75	15.40

Waterblasting units with 3500 PSI and above - \$.50 premium  
Spraypainting and all abrasive blasting - \$1.00 premium  
Work 40 ft. and above ground level - \$1.00 premium

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PLUM0184-002 07/01/2023

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN,  
FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN  
and TRIGG COUNTIES

	Rates	Fringes
Plumber; Steamfitter.....	\$ 39.86	18.98

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PLUM0502-004 08/01/2021

ALLEN, BUTLER, EDMONSON, SIMPSON & WARREN

Rates	Fringes
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Plumber; Steamfitter.....\$ 38.07                    20.78

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PLUM0633-002 07/01/2022

DAVISS, HANCOCK, HENDERSON, HOPKINS, LOGAN, MCLEAN,  
MUHLENBERG, OHIO, TODD, UNION & WEBSTER COUNTIES:

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 33.97	19.30

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\* TEAM0089-003 03/31/2024

ALLEN, BUTLER, EDMONSON, LOGAN, SIMPSON & WARREN COUNTIES

	Rates	Fringes
Truck drivers:		
Zone 1:		
Group 1.....	\$ 23.53	27.39
Group 2.....	\$ 23.70	27.39
Group 3.....	\$ 23.78	27.39
Group 4.....	\$ 23.80	27.39

GROUP 1 - Greaser; Tire Changer

GROUP 2 - Truck Mechanic; Single Axle Dump; Flat Bed; All Terrain Vehicles when used to haul materials; Semi Trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Driver of Distributors

GROUP 3 - Mixer All Types

GROUP 4 - Winch and A-Frame when used in transporting materials; Ross Carrier; Fork Lift when used to transport building materials; Driver on Pavement Breaker; Euclid and Other Heavy Earth Moving Equipment; Low Boy; Articulator Cat; Five Axle Vehicle

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\* TEAM0215-003 03/31/2024

DAVISS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, MUHLENBERG, OHIO  
& WEBSTER COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 25.15	27.39
Group 2.....	\$ 25.38	27.39
Group 3.....	\$ 25.45	27.39
Group 4.....	\$ 25.46	27.39

GROUP 1: Greaser, Tire Changer

GROUP 2: Truck Mechanic

GROUP 3: Single Axle Dump; Flat Bed; All Terrain Vehicle when used to haul materials; Semi Trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Driver of Distributors; Mixer All Types

GROUP 4: Euclid and other heavy earth moving equipment; Low

Boy; Articulator Cat; 5 Axle Vehicle; Winch and A- Frame  
when used in transporting materials; Ross Carrier; Fork  
Lift when used to transport building materials; Driver on  
Pavement Breaker

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\* TEAM0236-001 03/31/2024

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN,  
FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL,  
MCCRACKEN, TODD & TRIGG COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 23.52	27.39
Group 2.....	\$ 23.70	27.39
Group 3.....	\$ 23.70	27.39
Group 4.....	\$ 23.78	27.39
Group 5.....	\$ 23.80	27.39

GROUP 1: Greaser, Tire Changer

GROUP 2: Truck Mechanic

GROUP 3: Single Axle Dump; Flat Bed; All Terrain Vehicle when  
used to haul materials; Semi Trailer or Pole Trailer when  
used to pull building materials and equipment; Tandem Axle  
Dump; Drivers of Distributors

GROUP 4: Euclid and other heavy earth moving equipment; Low  
Boy; Articulator Cat; Five Axle Vehicle; Winch and A-Frame  
when used in transporting materials; Ross Carrier

GROUP 5: Mixer All Types

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WELDERS - Receive rate prescribed for craft performing  
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave  
for Federal Contractors applies to all contracts subject to the  
Davis-Bacon Act for which the contract is awarded (and any  
solicitation was issued) on or after January 1, 2017. If this  
contract is covered by the EO, the contractor must provide  
employees with 1 hour of paid sick leave for every 30 hours  
they work, up to 56 hours of paid sick leave each year.  
Employees must be permitted to use paid sick leave for their  
own illness, injury or other health-related needs, including  
preventive care; to assist a family member (or person who is  
like family to the employee) who is ill, injured, or has other  
health-related needs, including preventive care; or for reasons  
resulting from, or to assist a family member (or person who is  
like family to the employee) who is a victim of, domestic  
violence, sexual assault, or stalking. Additional information  
on contractor requirements and worker protections under the EO  
is available at  
<https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within  
the scope of the classifications listed may be added after

award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage

determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

#### State Adopted Rate Identifiers

Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R. 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material,

etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"



Fringe benefit amounts are applicable for all hours worked except when otherwise noted.

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U. S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U. S. Bureau of Apprenticeship and Training.

The contractor shall submit to the Contracting Officer, written evidence of the established apprenticeship-journeyman ratios and wage rates in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

**TO: EMPLOYERS/EMPLOYEES**

**PREVAILING WAGE SCHEDULE:**

**The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the number of hours worked in each classification at the prescribed hourly base rate.**

**OVERTIME:**

**Overtime is to be paid to an employee at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek. Wage violations or questions should be directed to the designated Engineer or the undersigned.**

Director  
Division of Construction Procurement  
Frankfort, Kentucky 40622  
502-564-3500

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION  
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY  
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

<b>GOALS FOR MINORITY PARTICIPATION IN EACH TRADE</b>	<b>GOALS FOR FEMALE PARTICIPATION IN EACH TRADE</b>
12.0%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4, 3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Notification of Construction Contract Award Portal (NCAP) is OFCCP's preferred method for receiving construction contract award notifications. The NCAP can be found on OFCCP's website at <https://www.dol.gov/agencies/ofccp/ncap>. Users who prefer not to use the portal maintain the option to send their notifications via mail, email and facsimile to the OFCCP Regional office in which the work will be performed. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification must include: Prime Contract Number (issued by the federal agency or applicant); Name of Awarding Federal Agency, Applicant or Contractor; Contracting Officer, Applicant Representative or Contractor Representative Submitting Notification with name, phone number, email address; Contractor Awarded Contract or Subcontract with name, address, phone number, email address, EIN, dollar amount of the contract, estimated start date of the contract, estimated completion date of the contract, geographical area in which the contract is to be performed (state, county's city (if applicable)).

The notification shall be mailed to:

**Regional Director  
Office of Federal Contract Compliance Programs  
61 Forsyth Street, SW, Suite 7B75  
Atlanta, Georgia 30303-8931  
Main Number: 404-893-4545 Fax: 404-893-4546  
Regional Director Contact: [OFCCP-SE@dol.gov](mailto:OFCCP-SE@dol.gov)  
Construction Award Email: [OFCCP-SE-ConstructionAward@dol.gov](mailto:OFCCP-SE-ConstructionAward@dol.gov)**

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is Warren County.

**PART IV**  
**INSURANCE**

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

**PART V**  
**BID ITEMS**

**PROPOSAL BID ITEMS**

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**Section: 0001 - PAVING**

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	507.00	TON		\$	
0020	00003		CRUSHED STONE BASE	21,727.00	TON		\$	
0030	00008		CEMENT STABILIZED ROADBED	41,796.00	SQYD		\$	
0040	00020		TRAFFIC BOUND BASE	1,645.00	TON		\$	
0050	00078		CRUSHED AGGREGATE SIZE NO 2	886.00	TON		\$	
0060	00100		ASPHALT SEAL AGGREGATE	241.00	TON		\$	
0070	00103		ASPHALT SEAL COAT	28.50	TON		\$	
0080	00190		LEVELING & WEDGING PG64-22	648.00	TON		\$	
0090	00212		CL2 ASPH BASE 1.00D PG64-22	17,204.00	TON		\$	
0100	00301		CL2 ASPH SURF 0.38D PG64-22	1,633.00	TON		\$	
0110	00309		CL2 ASPH SURF 0.50D PG64-22	598.00	TON		\$	
0120	00324		CL3 ASPH SURF 0.50B PG64-22	3,153.00	TON		\$	
0130	00358		ASPHALT CURING SEAL	42.00	TON		\$	
0140	02101		CEM CONC ENT PAVEMENT-8 IN	301.00	SQYD		\$	
0150	02542		CEMENT	835.00	TON		\$	
0160	02602		FABRIC-GEOTEXTILE CLASS 1 (FOR SEPARATION)	2,054.00	SQYD		\$	
0170	02676		MOBILIZATION FOR MILL & TEXT (WARREN KY 185 HSIP)	1.00	LS		\$	
0180	02677		ASPHALT PAVE MILLING & TEXTURING	146.00	TON		\$	
0190	02702		SAND FOR BLOTTER	104.00	TON		\$	
0200	20071EC		JOINT ADHESIVE	19,110.00	LF		\$	
0210	24970EC		ASPHALT MATERIAL FOR TACK NON- TRACKING	32.30	TON		\$	

**Section: 0002 - ROADWAY**

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0220	00078		CRUSHED AGGREGATE SIZE NO 2	3,845.00	TON		\$	
0230	01000		PERFORATED PIPE-4 IN	993.00	LF		\$	
0240	01010		NON-PERFORATED PIPE-4 IN	96.00	LF		\$	
0250	01020		PERF PIPE HEADWALL TY 1-4 IN	4.00	EACH		\$	
0260	01024		PERF PIPE HEADWALL TY 2-4 IN	4.00	EACH		\$	
0270	01028		PERF PIPE HEADWALL TY 3-4 IN	1.00	EACH		\$	
0280	01032		PERF PIPE HEADWALL TY 4-4 IN	3.00	EACH		\$	
0290	01711		FILL AND CAP WELL	1.00	EACH		\$	
0300	01740		CORED HOLE DRAINAGE BOX CON-4 IN	3.00	EACH		\$	
0310	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	132.00	EACH		\$	
0320	01987		DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	18.00	EACH		\$	
0330	02014		BARRICADE-TYPE III	24.00	EACH		\$	
0340	02091		REMOVE PAVEMENT	1,390.00	SQYD		\$	
0350	02159		TEMP DITCH	9,174.00	LF		\$	
0360	02160		CLEAN TEMP DITCH	4,589.00	LF		\$	
0370	02200		ROADWAY EXCAVATION	166.00	CUYD		\$	
0380	02223		GRANULAR EMBANKMENT	10.00	CUYD		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0390	02230		EMBANKMENT IN PLACE	428,735.00	CUYD		\$	
0400	02242		WATER	500.00	MGAL		\$	
0410	02355		GUARDRAIL-STEEL W BEAM-S FACE A	100.00	LF		\$	
0420	02360		GUARDRAIL TERMINAL SECTION NO 1	11.00	EACH		\$	
0430	02367		GUARDRAIL END TREATMENT TYPE 1	1.00	EACH		\$	
0440	02373		GUARDRAIL END TREATMENT TYPE 3	4.00	EACH		\$	
0450	02381		REMOVE GUARDRAIL	2,001.00	LF		\$	
0460	02391		GUARDRAIL END TREATMENT TYPE 4A	6.00	EACH		\$	
0470	02429		RIGHT-OF-WAY MONUMENT TYPE 1	111.00	EACH		\$	
0480	02432		WITNESS POST	13.00	EACH		\$	
0490	02469		CLEAN SINKHOLE	2.00	EACH		\$	
0500	02471		FILL AND CAP SINKHOLE	1.00	EACH		\$	
0510	02483		CHANNEL LINING CLASS II	3,922.40	TON		\$	
0520	02484		CHANNEL LINING CLASS III	2,976.00	TON		\$	
0530	02545		CLEARING AND GRUBBING (5.1 AC)	1.00	LS		\$	
0540	02545		CLEARING AND GRUBBING APPROXIMATELY 58.6 ACRES.	1.00	LS		\$	
0550	02555		CONCRETE-CLASS B	75.00	CUYD		\$	
0560	02562		TEMPORARY SIGNS	166.00	SQFT		\$	
0570	02585		EDGE KEY	188.00	LF		\$	
0580	02602		FABRIC-GEOTEXTILE CLASS 1 (FOR SLOPE PROTECTION)	9,008.00	SQYD		\$	
0590	02602		FABRIC-GEOTEXTILE CLASS 1 (FOR STABILIZATION)	8,667.00	SQYD		\$	
0600	02603		FABRIC-GEOTEXTILE CLASS 2 (FOR SEPARATION)	8,350.00	SQYD		\$	
0610	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0620	02650		MAINTAIN & CONTROL TRAFFIC (WARREN KY 185 HSIP)	1.00	LS		\$	
0630	02671		PORTABLE CHANGEABLE MESSAGE SIGN	6.00	EACH		\$	
0640	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		\$	
0650	02677		ASPHALT PAVE MILLING & TEXTURING	61.80	TON		\$	
0660	02697		EDGELINE RUMBLE STRIPS	30,747.00	LF		\$	
0670	02701		TEMP SILT FENCE	13,713.00	LF		\$	
0680	02703		SILT TRAP TYPE A	68.00	EACH		\$	
0690	02704		SILT TRAP TYPE B	68.00	EACH		\$	
0700	02705		SILT TRAP TYPE C	27.00	EACH		\$	
0710	02706		CLEAN SILT TRAP TYPE A	127.00	EACH		\$	
0720	02707		CLEAN SILT TRAP TYPE B	127.00	EACH		\$	
0730	02708		CLEAN SILT TRAP TYPE C	45.00	EACH		\$	
0740	02726		STAKING	1.00	LS		\$	
0750	02726		STAKING (WARREN KY 185 HSIP)	1.00	LS		\$	
0760	03171		CONCRETE BARRIER WALL TYPE 9T	325.00	LF		\$	
0770	05950		EROSION CONTROL BLANKET	54,324.00	SQYD		\$	
0780	05952		TEMP MULCH	216,671.00	SQYD		\$	
0790	05953		TEMP SEEDING AND PROTECTION	162,503.00	SQYD		\$	
0800	05963		INITIAL FERTILIZER	12.40	TON		\$	
0810	05964		MAINTENANCE FERTILIZER	7.80	TON		\$	
0820	05985		SEEDING AND PROTECTION	139,780.00	SQYD		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0830	05990		SODDING	44,349.00	SQYD		\$	
0840	05992		AGRICULTURAL LIMESTONE	147.20	TON		\$	
0850	06404		FLEXIBLE DELINEATOR POST-M/Y	12.00	EACH		\$	
0860	06510		PAVE STRIPING-TEMP PAINT-4 IN	32,760.00	LF		\$	
0870	06515		PAVE STRIPING-PERM PAINT-6 IN	24,800.00	LF		\$	
0880	06530		PAVE STRIPING REMOVAL-4 IN	7,960.00	LF		\$	
0890	06540		PAVE STRIPING-THERMO-4 IN W	25,904.00	LF		\$	
0900	06541		PAVE STRIPING-THERMO-4 IN Y	26,376.00	LF		\$	
0910	06568		PAVE MARKING-THERMO STOP BAR-24IN	252.00	LF		\$	
0920	06569		PAVE MARKING-THERMO CROSS-HATCH	9,490.00	SQFT		\$	
0930	06574		PAVE MARKING-THERMO CURV ARROW	5.00	EACH		\$	
0940	06578		PAVE MARKING-THERMO MERGE ARROW	2.00	EACH		\$	
0950	08150		STEEL REINFORCEMENT	50.00	LB		\$	
0960	08805		GUARDRAIL-BRIDGE CASE I	86.00	LF		\$	
0970	08903		CRASH CUSHION TY VI CLASS BT TL3	2.00	EACH		\$	
0980	10020NS		FUEL ADJUSTMENT	103,966.00	DOLL	\$1.00	\$	\$103,966.00
0990	10030NS		ASPHALT ADJUSTMENT	50,050.00	DOLL	\$1.00	\$	\$50,050.00
1000	20166ES810		TEMPORARY PIPE	184.00	LF		\$	
1010	20191ED		OBJECT MARKER TY 3	6.00	EACH		\$	
1020	20458ES403		CENTERLINE RUMBLE STRIPS	9,600.00	LF		\$	
1030	20550ND		SAWCUT PAVEMENT	3,015.00	LF		\$	
1040	20748ED		SHOULDER MILLING/TRENCHING	2,558.00	SQYD		\$	
1050	21289ED		LONGITUDINAL EDGE KEY	1,775.00	LF		\$	
1060	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	7,676.75	LF		\$	
1070	23274EN11F		TURF REINFORCEMENT MAT 1	13,333.00	SQYD		\$	
1080	23649EC		DRAIN POND Station Range 1525+55 - 1527+90	1.00	LS		\$	
1090	23649EC		DRAIN POND Station Range 1584+30 - 1586+20	1.00	LS		\$	

**Section: 0003 - DRAINAGE**

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1100	00440		ENTRANCE PIPE-15 IN	646.00	LF		\$	
1110	00441		ENTRANCE PIPE-18 IN	312.00	LF		\$	
1120	00443		ENTRANCE PIPE-24 IN	319.00	LF		\$	
1130	00462		CULVERT PIPE-18 IN	330.00	LF		\$	
1140	00464		CULVERT PIPE-24 IN	419.00	LF		\$	
1150	00469		CULVERT PIPE-42 IN	269.00	LF		\$	
1160	00521		STORM SEWER PIPE-15 IN	51.00	LF		\$	
1170	00522		STORM SEWER PIPE-18 IN	379.00	LF		\$	
1180	00526		STORM SEWER PIPE-30 IN	364.00	LF		\$	
1190	01204		PIPE CULVERT HEADWALL-18 IN	6.00	EACH		\$	
1200	01208		PIPE CULVERT HEADWALL-24 IN	6.00	EACH		\$	
1210	01210		PIPE CULVERT HEADWALL-30 IN	2.00	EACH		\$	
1220	01214		PIPE CULVERT HEADWALL-42 IN	2.00	EACH		\$	
1230	01310		REMOVE PIPE	51.00	LF		\$	
1240	01371		METAL END SECTION TY 1-18 IN	2.00	EACH		\$	
1250	01450		S & F BOX INLET-OUTLET-18 IN	2.00	EACH		\$	



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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1260	01496		DROP BOX INLET TYPE 3	1.00	EACH		\$	
1270	01499		DROP BOX INLET TYPE 4	2.00	EACH		\$	
1280	01538		DROP BOX INLET TYPE 7	1.00	EACH		\$	
1290	01726		SAFETY BOX INLET-18 IN SDB-1	1.00	EACH		\$	
1300	01727		SAFETY BOX INLET-24 IN SDB-1	2.00	EACH		\$	
1310	02403		REMOVE CONCRETE MASONRY	1.00	CUYD		\$	
1320	02483		CHANNEL LINING CLASS II	531.50	TON		\$	
1330	02484		CHANNEL LINING CLASS III	48.70	TON		\$	
1340	02602		FABRIC-GEOTEXTILE CLASS 1 (FOR SLOPE PROTECTION)	421.00	SQYD		\$	
1350	02602		FABRIC-GEOTEXTILE CLASS 1 (FOR STABILIZATION)	62.00	SQYD		\$	
1360	02603		FABRIC-GEOTEXTILE CLASS 2 (FOR SUBSURFACE DRAINAGE)	69.00	SQYD		\$	
1370	02607		FABRIC-GEOTEXTILE CLASS 2 FOR PIPE	4,574.00	SQYD	\$2.00	\$	\$9,148.00
1380	02625		REMOVE HEADWALL	8.00	EACH		\$	
1390	03262		CLEAN PIPE STRUCTURE	3.00	EACH		\$	
1400	08003		FOUNDATION PREPARATION (3X3 RCBC, STA 487+24)	1.00	LS		\$	
1410	08003		FOUNDATION PREPARATION (4X4 RCBC, STA 442+24)	1.00	LS		\$	
1420	08100		CONCRETE-CLASS A	44.75	CUYD		\$	
1430	08150		STEEL REINFORCEMENT	2,568.00	LB		\$	
1440	24814EC		PIPELINE INSPECTION	2,210.00	LF		\$	
1450	26131ED		SLOPED AND MITERED HEADWALL-18 IN	2.00	EACH		\$	
1460	26132ED		SLOPED AND MITERED HEADWALL-24 IN	3.00	EACH		\$	

**Section: 0004 - BRIDGE**

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1470	08002		STRUCTURE EXCAV-SOLID ROCK	40.00	CUYD		\$	
1480	08003		FOUNDATION PREPARATION	1.00	LS		\$	
1490	08100		CONCRETE-CLASS A	518.40	CUYD		\$	
1500	08150		STEEL REINFORCEMENT	80,555.00	LB		\$	

**Section: 0005 - SIGNING**

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1510	06401		FLEXIBLE DELINEATOR POST-M/W	22.00	EACH		\$	
1520	06404		FLEXIBLE DELINEATOR POST-M/Y	14.00	EACH		\$	
1530	06406		SBM ALUM SHEET SIGNS .080 IN	160.00	SQFT		\$	
1540	06407		SBM ALUM SHEET SIGNS .125 IN	32.00	SQFT		\$	
1550	06411		STEEL POST TYPE 2	421.00	LF		\$	
1560	06412		STEEL POST MILE MARKERS	2.00	EACH		\$	
1570	21134ND		REMOVE-STORE AND REINSTALL SIGN	27.00	EACH		\$	
1580	21373ND		REMOVE SIGN	15.00	EACH		\$	
1590	24631EC		BARCODE SIGN INVENTORY	35.00	EACH		\$	

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#### Section: 0006 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1600	02568		MOBILIZATION	1.00	LS		\$	
1610	02569		DEMOBILIZATION	1.00	LS		\$	