CALL NO. 105

CONTRACT ID. 184001

MCCRACKEN COUNTY

FED/STATE PROJECT NUMBER HSIP 9010 (303)

DESCRIPTION HUSBANDS RD (KY 1954)

WORK TYPE ASPHALT REHAB WITH GRADE & DRAIN

PRIMARY COMPLETION DATE 1/15/2019

LETTING DATE: January 26,2018

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN STANDARD TIME January 26,2018. Bids will be publicly announced at 10:00 AM EASTERN STANDARD TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

DBE CERTIFICATION REQUIRED - 7%

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

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PART I

SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 01

CONTRACT ID - 184001

HSIP 9010 (303)

COUNTY - MCCRACKEN

PCN - 0107319541701
HSIP 9010 (303)

HUSBANDS RD (KY 1954) (MP 0.000) SAFETY IMPROVEMENTS FROM KY 348 TO 0.085 MILES SOUTHWEST OF KY 3075 (MP 3.040), A DISTANCE OF 03.04 MILES.ASPHALT REHAB WITH GRADE & DRAIN SYP NO. 01-09002.00.

GEOGRAPHIC COORDINATES LATITUDE 36:59:11.65 LONGITUDE 88:35:55.38

COMPLETION DATE(S):

COMPLETED BY 01/15/2019 APPLIES TO ENTIRE PROJECT

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 Expedite Bidding Program available on the Internet web site of the Department of Highways, Division of Construction Procurement. (www.transportation.ky.gov/construction-procurement)

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

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

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

SPECIAL NOTE FOR COMPOSITE OFFSET BLOCKS

Contrary to the Standard Drawings (2016 edition) the Cabinet will allow 6" composite offset blocks in lieu of wooden offset blocks, except as specified on proprietary end treatments and crash cushions. The composite blocks shall be selected from the Cabinet's List of Approved Materials.

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 fax (502) 564-7299 or email to kytc.projectquestions@ky.gov. The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

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

The questions and answers will be posted for each Letting under the heading "Questions & Answers" on the Construction Procurement website (www.transportation.ky.gov/contract). 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.

06/01/16

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 Capacity Rating 102.10 Delivery of Proposals
102.8 Irregular Proposals 102.14 Disqualification of Bidders
102.9 Proposal Guaranty

CIVIL RIGHTS ACT OF 1964

The Kentucky Department of Highways, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252) and the Regulations of the Federal Department of Transportation (49 C.F.R., Part 21), issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that the contract entered into pursuant to this advertisement will be awarded to the lowest responsible bidder without discrimination on the ground of race, color, or national origin.

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 on federally assisted projects shall be permitted. However, in the case of DBE’s, second tier subcontracts will only be permitted where the other subcontractor is also a DBE. All second tier subcontracts shall have the consent of both the Contractor and the Engineer.

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 Project Code Number (PCN), 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.

UPON AWARD AND BEFORE A WORK ORDER WILL BE ISSUED

Contractors must submit the signed subcontract between the contractor and the DBE contractor, the DBE's certificate of insurance, and an affidavit for bidders, offerors, and contractors from the DBE to the Division of Construction Procurement. The affidavit can be found on the Construction Procurement website. If the DBE is a supplier of materials for the project, a signed purchase order and an affidavit for bidders, offerors, and contractors must be submitted to the Division of Construction Procurement.

Changes to 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 and nine (9) copies of this information must be received in the office of 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 certainly 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 DBE Liaison in the Office of Minority Affairs 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 our 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:

- 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 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 (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 submitted within 10 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.

The Prime Contractor should supply the payment information at the time the DBE is compensated for their work. Form to use is located at:
http://transportation.ky.gov/Construction/Pages/Subcontracts.aspx

The prime contractor should notify the KYTC Office of Civil Rights and Small Business Development seven (7) days prior to DBE contractors commencing work on the project. The contact is Melvin Bynes and the telephone number is (502) 564-3601.

Photocopied payments and completed, signed and notarized affidavit must be submitted by the Prime Contractor to: Office of Civil Rights and Small Business Development
6th Floor West 200 Mero Street
Frankfort, KY 40622

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.

1/27/2017

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 18-20 feet.

The Department estimates the total mainline area to be surfaced to be 4981 square yards.

The Department estimates the shoulder width to be 1 feet on each side.

The Department estimates the total shoulder area to be surfaced to be 553 square yards.

ASPHALT MIXTURE

Unless otherwise noted, the Department estimates the rate of application for all asphalt mixtures to be 110 lbs/sy per inch of depth.

DGA BASE

Unless otherwise noted, the Department estimates the rate of application for DGA Base to be 115 lbs/sy per inch of depth.

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.

OPTION B

Be advised that the Department will control and accept compaction of asphalt mixtures furnished on this project under OPTION B in accordance with Sections 402 and 403.

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

CAUTION

The information in this proposal and shown on the plans, summary sheets, and the type of work listed herein are approximate only and are not to be taken as an accurate evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions. The Department does not give any guarantee as to the accuracy of the data and no claim for money or time extension will be considered if the conditions encountered are not in accordance with the information shown.

PRE-BID CONFERENCE

A Mandatory Pre-Bid Conference will be held for this project on January 17, 2018 at 9:00 am (local time). It will be held at:

Department of Highways, District One
5501 Kentucky Dam Road
Paducah, KY 42003

STATIONING

The contractor is advised that the planned locations of work were established from a beginning station number which is STA 100+00 at the Intersection of KY 1954 with KY 348. Milepoints were established from a beginning Milepoint which is MP 0.000 at the KY 1954 - KY 348 intersection. The existing mile marker signs may not correspond to the proposed work locations

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 any staging areas that are 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.

COORDINATION WITH UTILITY COMPANIES

NOTICE: Utility locations shown in the plans are approximate and have not been specifically located by the Department. Locate all underground, above ground and overhead utilities prior to beginning construction. The Contractor shall have the responsibility 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. The waterline along the Clark Line Levee curve reconstruction from approximately Station 252+25 to Station 253+90 will be relocated as a part of this proposal; however, other utilities to be relocated will be done prior to the construction by others. In the event that it is discovered that the work does require that an additional utility will need to be relocated and/or adjusted, the utility

companies will work concurrently with the Contractor while relocating their facilities. The Contractor shall be responsible for repairing all utility damage that occurs as a result of his operations. See the Utilities and Rail Certification Special Note.

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 the Engineer's decision shall be final and binding upon the Contractor.

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

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:

Superelevation Improvements. There are two curves between Stations 207+00 to 215+00 where Superelevation Improvements are being proposed. The intent of this work is to bring a consistent pavement cross slope through the identified curves. Refer to the Superelevation Improvement Summary for locations and approximate quantities. The Contractor will need to utilize Leveling & Wedging and/or Asphalt Base in order to achieve the desired superelevation improvements at the identified curves. In certain areas where the superelevation improvement will only require adding 1-2 inches of additional pavement depth, Leveling & Wedging PG64-22 will be required. In areas where the superelevation improvement will require 3 or more inches of additional pavement depth, Class 2 Asphalt Base 1.00D PG 64-22 will be required. The Superelevation Correction Summary lists the estimated quantities of Asphalt Base and Leveling & Wedging for each curve; however, the Engineer will make the final determination as to which bid items will be required at each superelevation improvement area, as well as the appropriate lift thicknesses and number of lifts based on the existing conditions encountered at the time of construction. After placement of the Leveling & Wedging and Asphalt Base, the entire route will be overlaid with a surface course. As a result of these paving operations within the identified curves, the roadside shoulders and fill slopes will have to be modified to match the final pavement elevations and tie in with the existing ground lines. A representative cross section is given for each curve showing the proposed superelevation improvements and the

resulting shoulder and fill slope grading. The quantities for these modifications have been included within the Ditching and Shouldering bid item.

NOTE: Some field adjustments of the shoulder, fill slope, and/or superelevation improvement may be required. The resulting shoulder and fill slope grading is intended to occur within Right-Of-Way and not disturb any sensitive obstructions (i.e. fences, tree lines, utility poles, etc.). Superelevation improvements with sensitive obstructions along the roadside shall still require the roadside shoulder and fill slope to be modified, but the slope may have to be constructed steeper than what is shown on the superelevation typical section. The desire of the Department is to keep the fill slopes at 3:1 or flatter; however, some 2:1 slopes may be necessary, especially when the existing slope is 2:1 or close to 2:1. Further, if a desired superelevation improvement will result in a fill slope having to be graded steeper than 2:1 in order to not impact a sensitive obstruction, then the superelevation rate should be modified (reduced) in order to reduce the final change in pavement edge elevation, thereby reducing the height of the new fill slope grading, and allowing for a flatter fill slope.

Guardrail Replacement. Existing guardrail within the project will be replaced. Refer to the Guardrail Summary for the approximate locations for guardrail replacement. The work will include removal of the existing guardrail, placement of a DGA shoulder at a Three foot width (with 4" of depth) and 2:1 side slopes to accommodate installation of the new guardrail and end treatments, double asphalt seal coat and embankment-in-place. See the Special Note for Guardrail for more information on this work.

Trim & Remove Trees, Stumps, and Brush. There are locations within the project where Trees, Stumps, or Brush are to be removed and/or trimming. Locations are noted on the Tree Removal & Trimming Summary. Refer to the Special Note for Tree, Stump, and Brush Removal for more information.

Edge Key. Construct Edge Keys at the beginning of project, end of project, at railroad crossings, and at ramps, as applicable. 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.

Erosion Control Blanket. A quantity of 6000 square yards of Erosion Control Blanket has be included in the contract for use within 15 feet of the toe of the Levee and 1500 square yards for potential use along areas of regraded ditch line, 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 placement of Channel Lining.

Ditching and Shouldering. Perform ditching and shouldering according to Section 209 and the applicable Standard and Sepia Drawings, Typical Sections, and Details provided. The bid item "Ditching and Shouldering" will consist of any necessary grading and/or re-shaping of the existing shoulder and/or ditch, or providing suitable earth material and grading, shaping, and compacting the earth material, in order to achieve the proposed shoulder and/or ditch dimensions as detailed in the Typical Sections, at the locations identified on the Ditching and Shouldering Tabulation, or locations as directed by the Engineer. There may be locations where the final front and/or back slopes must be steeper than 3:1. These locations will be determined by the Engineer. Immediately prior to

completion, clean all existing pipes, new culvert and entrance pipes, and grade ditches to drain. Provide positive drainage of pavement, shoulders, slopes, and ditches at all times during and upon completion of construction. Use Erosion Control Blanket and/or Channel Lining Class II, as directed by the Engineer.

NOTE: Contrary to Section 209.04 the Department will measure the bid item "Ditching and Shouldering" in linear feet along each side of the roadway as the length of the actual ditching and/or shouldering work performed. Further, this measurement will only include one side of the roadway. Therefore, for areas where ditching and shouldering occurs on both sides of the road, the Department will measure each side independently. No additional compensation will be allowed for excavation of rock encountered while executing the bid item "Ditching and Shouldering."

DGA Wedge & Chip Seal. The entire project length including the areas receiving "Ditching and Shouldering" are set up to receive a 4" DGA Wedge (18" in width) & Chip Seal after the shouldering and/or ditching earthwork is complete. Generally, the areas that are NOT routinely mowed are the areas to receive the DGA Wedge & Chip Seal. Areas that are routinely mowed by the adjoining property owner may be skipped at the direction of the Engineer. It is not the intent to place any DGA Wedge & Chip Seal where it appears the adjoining property owner is routinely mowing up to the edge of pavement. The Engineer will determine the exact limits of the DGA Wedge & Chip Seal to be skipped at the time of construction.

Pipe. The Contractor will install the pipe replacements initially as shown in the Pipe Replacement Detail, excluding the Asphalt Surface. The Contractor shall wait a minimum of 48 hours after pipe replacement and placing Asphalt Base to Level and Wedge and place Asphalt Surface. Material used to Level and Wedge shall be paid as Asphalt Surface. During the waiting period, the Contractor is responsible for maintaining the driving surface. Materials used for maintenance shall be incidental to Maintain and Control Traffic. The total length of roadway at pipe replacement locations (not in curves receiving superelevation) to have asphalt surfacing is 200 feet, with 100 feet beyond the pipe in each direction. Asphalt quantities per location shall be determined by the Engineer.

Pipe Culvert Headwall. The metal end section Type 3 pipe culvert headwall will be installed were sufficient right of way exist. See pipe sections for details.

Safety Box Inlet. A safety box inlet will be used to connect the pipes at Geibe Road and to eliminate the hole.

Pipe Culvert Headwall (Levee). The pipe culvert headwall for the five pipes being extended under the Clark Line Levee has been designed by modifying the standard drawings for a triple pipe culvert. However, the Contractor and Engineer should work together to determine if any field adjustments modifications are needed. All modifications shall be approved by the Engineer. This pipe culvert headwall shall be paid by Lump Sum. Refer to the Pipe Culvert Details and the Information Plan Sheets.

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-060-04.

Remove and Relocate Signs. A quantity of 7 each of "Remove and Relocate Sign Assembly" 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. For example, there are various locations where Ditching and Shouldering is to be performed, followed by installation of a DGA wedge and chip seal. If a sign is within such area, it will likely need to be removed for the ditching and shouldering operations. However, the sign could be reinstalled after the ditching and shouldering operations, but before the DGA and chip seal operations, as these operations occur much closer to the edge of pavement, and signing is typically installed 6-12 feet from the edge of pavement. The intent is for the sign to be "down" the minimum length of time necessary. Where a sign is intended to be removed and relocated, a quantity for new sign post has been included.

Removal of Existing Curve Signing and Installation of Proposed Curve Signing. A quantity of 29 each of "Remove Sign" has been included in the Signing Tabulation for removal of existing curve signing along the corridor. An estimated quantity of new replaced curve signing and sign post or new located signs are included on the Signing Tabulation. Once final surfacing operations are complete, the District Traffic Section will perform ball bank readings along the route to determine the curves requiring curve signing and the appropriate advisory speeds of those curves. Refer to the Special Note for Signing, Special Note for Staking, and Special Note for Signage for more details.

Levee Pipe Extension. The Levee Pipe Extension is to be installed according the specifications for the installation of Hobas Pipe. Refer to the Special Details provided for the Hobas Pipe Extension.

*****Special Notice*****

*The City Engineer for the City of Paducah must be given a **48 hour** notice before the Levee pipes extensions are to actually be connected to the existing pipe in order for him to provide approval for making the connection.*

Levee Special Embankment Benching. The embankment benching on the Levee is to follow the Standard Operating Procedures for Benching and Compaction for Levee and Floodwall modifications.

Temporary Signs. A quantity of 550 SQFT is included for signage to alert road users of construction activities and for detour signage. These signs are to be installed before construction activities begin and remain in place and in good condition through the duration of construction and the detour.

DISPOSAL OF WASTE

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.

FINAL DRESSING, CLEAN UP, SEEDING, PRETECTION AND RESORATATION

After all work is completed, remove all waste and debris from the job site. Grade all disturbed areas to blend with the adjacent roadway features and to provide a suitable seed bed. Perform Class A Final dressing on all disturbed areas. Seed and protect all disturbed earthen areas according to the Special Note for Erosion Control.

PROGRESS PHOTOS

The Contractor will be required to obtain Digital Progress Photographs for the Clark Line Levee Pipe Extension and Embankment Fill. The progress photos shall be taken at reasonable intervals throughout the construction of the Levee and pipe extensions on a daily basis (when actively working on a related task) to depict the conditions and activities related to each task. This shall be incidental to the project. All digital photographs are to be submitted to KYTC at the completion of each task.

HOBAS Pipe Extension Special Note

Contains 12 Pages From the Following:

The Complete HOBAS Guide

HOBAS®

Centrifugally Cast, Fiberglass-Reinforced, Polymer Mortar Pipe

Product Range

Standard section length is 20 ft. although shorter pipes are available.

Nominal Diameters

18″	20″	24″	27″	28″	30″	33″	36″	41″	42″
44″	45″	48″	51″	54″	57″	60″	63″	66″	69″
72″	78″	84″	85″	90″	96″	104″	110″	120″	126″

Note: Actual dimensions are given in Appendix B. Other nominal diameters may be available. Please inquire.

Stiffness Classes (SN)

Installation	SN 18	SN 36	SN 46	SN 72	SN >72
Direct Bury					
Sliplining Non Pressure					
Sliplining Pressure					
Pipe Bursting, Jacking & Microtunneling					
Tunnel Carrier Pipe					
Aboveground	See page 17, 46 & 47				

Standard

Infrequent

Very Unusual

SN is minimum pipe stiffness in psi.

Lengths

Standard 20 foot sections (Special lengths and even divisions of 20 ft. are available.)

SPECIAL NOTE - HOBAS PIPE EXTENTION
PAGE 1 OF 12

Diameter range is 18” to 126”.

Riser pipes are available for both new construction and rehabilitation.

Fittings

Fiberglass reinforced polymer flanges, elbows, reducers, tees, manholes, wyes & laterals, constructed by contact molding or from mitered sections of fiberglass reinforced polymer mortar pipe joined by glass-fiber-reinforced overlays, are available for all non-pressure and many pressure applications. Protected ductile iron, fusion-bonded epoxy- coated steel or stainless steel fittings are typically compatible and may be used with all HOBAS pressure classes. Fitting details may be found in Section 9 and Appendix E.

Pressure Classes

Dia. (in.)	PN (psi) 25	50	100	150	200	250
18						
20						
24						
27						
28						
30						
33						
36						
41						
42						
44						
45						
48						
51						
54						
57						
60						
63						
66						
69						
72						
78						
84						
85						
90						
96						
104						
110						
120						
126						

Non-Standard

A variety of manhole fittings and options are available to suit your needs.

Pipe Stiffness Selection

Direct Bury Applications

Appropriate pipe stiffness is a function of native soil characteristics, trench construction, cover depth, embedment conditions, and haunching. Figure 1 (See below) relates these parameters assuming a minimum width trench as defined in Figure 11 (pg. 39). (Under certain circumstances, pipe stiffness less than 36 psi may be suitable.)

For pipes with vacuum operating conditions, see Allowable Negative Pressure in Section 6 (pg. 19) for appropriate pipe stiffness for various installations and negative pressures.

For shallow buried pipes with surface loads, see Traffic Loads in Section 6 (pg. 20) for appropriate pipe stiffness for various installations and cover depths.

High stiffness HOBAS pipes may be buried safely at depths exceeding 50 ft.

NATIVE SOIL [2,5]	COVER DEPTH[1] (ft.)	EMBEDMENT CONDITION[3] 1	2	3	4
ROCK	10 & <	SN[5] 36	SN[5] 36	SN[5] 36	SN[5] 72
	>10 to 20	SN[5] 36	SN[5] 36	SN 46	SN 46
Stiff to V. Hard Cohesive (Qu ≥ 1 Tsf)	>20 to 30	SN 46	SN 46	SN 72	SN 72
	>30 to 40	SN 72	SN 72	ALTERNATE INSTALLATION[6]	
Compact to V. Dense Granular (SPT N ≥ 8 bpf)	>40 to 50	SN 72	SN 72		
	>50 to 60	SN 90	SN 90		
	>60 to 70	SN 120	SN 120		
Medium Cohesive (Qu ≥ 0.5 Tsf)	10 & <	SN 36	SN 36	SN 36	SN 72
	>10 to 20	SN 36	SN 36	SN 46	SN 72
Loose Granular (SPT N = 4 to 7 bpf)	>20 to 30	SN 46	SN 46	SN 72	ALTERNATE INSTALLATION[6]
	>30 to 40	SN 72	SN 72	ALTERNATE INSTALLATION[6]	
Soft Cohesive (Qu ≥ 0.25 Tsf)	10 & <	SN 36	SN 36	SN 72	ALTERNATE INSTALLATION[6]
V. Loose Granular (SPT N = 2 to 3 bpf)	>10 to 20	SN 46	SN 46	ALTERNATE INSTALLATION[6]	
	>20 to 30	SN 72	SN 72		
V. Soft Cohesive (Qu ≥ 0.125 Tsf)	10 & <	SN 72	SN 72	ALTERNATE INSTALLATION[6]	
V. V. Loose Granular (SPT N ~ 1 bpf)	>10 to 20	SN 72	SN 72		

[1] Assuming typ. 1.5 x OD Trench Width (or as in Figure 11)
[2] Soils adjacent to pipe (pipe zone elevation)
[3] Defined in Figure 13
[4] For zero blow (weight of hammer) soils, use Alternate Installation & SN 72
[5] SN is nominal stiffness in PSI
[6] Alternate Installation per section 14, A8-Typ. SN 72 min.

STIFFNESS CLASS KEY
SN 36 · SN 46 · SN 72 · SN 90 · SN 120 · Alternate Installation

FIGURE 1 - Pipe Stiffness Selection for Standard Installations[1]

HOBAS pipes easily withstand a full vacuum service condition due to the high stiffness design.

Joints

Joint Designs

Several joint designs are available to meet the requirements of many different applications. The FWC coupling is normally utilized for direct bury, aboveground, and some other installations. For sliplining, jacking, and tunnel installations, special joints are available. Closure couplings are available for tie-ins. Joint dimensions are given in Appendix C.

Joining Forces for HOBAS Couplings

Approximate average straight alignment (pounds)		
Nominal Pipe Size (in)	Avg. FWC Joining Force (lbs.)	Flush and LPB (lbs.)
18	3150	2150
20	3500	2350
24	4200	2850
27	4725	3200
28	4900	3300
30	5250	3550
33	5775	3900
36	6300	4250
41	7175	4800
42	7350	4950
44	7700	5150
45	7875	5300
48	8400	5650
51	8925	6000
54	9450	6350
57	9975	6700
60	10500	7050
63	11025	7400
66	11550	7750
69	12075	8100
72	12600	8450
78	13650	9150
84	14700	9850
85	14875	9950
90	15750	10550
96	16800	11250
104	18200	12200
110	19250	12850
120	21000	14050
126	22000	14700

Joint Selection

Installation	Service	
	Non-Pressure	Pressure
Direct Bury	FWC Coupling	FWC Coupling
Sliplining	Low Profile Bell-Spigot*	Pressure Relining
Jacking	Flush Bell-Spigot	Flush FWC Coupling
Aboveground	FWC Coupling	FWC Coupling
Tunnel Carrier Pipe	Flush Bell-Spigot**	Pressure Relining
Tie-ins	Closure Coupling	Steel Mechanical Coupling

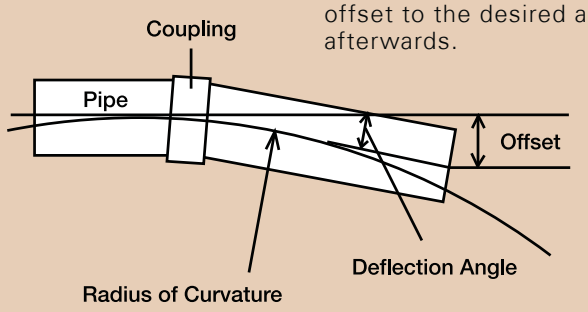
* May use flush bell-spigot joint in very tight fit situations.
** May use FWC coupling in some situations.

Minimum Radius of Curvature for Various Deflected Joints

Max Deflected Angle in Degrees	Max Offset (inches)			Min Radius of Curvature (feet)		
	Section Length (feet)			Section Length (feet)		
	5	10	20	5	10	20
3	3	6	12	95	191	382
2	2	4	8	143	286	573
1.75	1.75	3.5	7	164	327	655
1.5	1.5	3	6	191	382	764
1.25	1.25	2.5	5	229	458	917
1	1	2	4	286	573	1146
0.75	0.75	1.5	3	383	764	1528
0.5	0.5	1	2	573	1146	2292

* See specific joints for capability

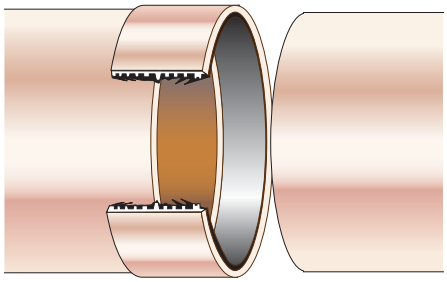
Note: Always join pipes in "straight" alignment and then offset to the desired angle afterwards.



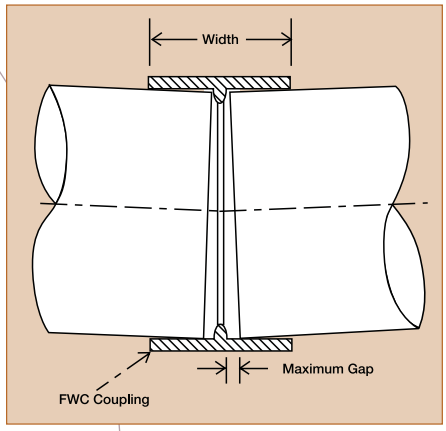
FWC Joint Gap & Angular Deflection

Diameter (inches)	Coupling Width (inches)*	Joint Gap (inches)	Max Deflection Angle, (degrees)
18-20	8	1	3
24-33	10	1	2
36-42	10	1	1.5
44-54	10	1	1
57-60	11.5	1	1
63-78	11.5	1	0.75
84-110	11.5	1	0.5
120-126	13.75	1	0.5

*This is just a summary table. Contact HOBAS for specific diameter capability.



FWC coupling.



HOBAS FWC coupling.

FWC Coupling

Description & Capability

The FWC coupling is a structural filament wound sleeve overwrapped and mechanically locked to an internal full-face elastomeric membrane. The sealing design includes both lip and compression elements so the joint is suitable for both non-pressure and for pressure service up to 250 psi. The coupling is factory assembled to one end of each pipe for ease of use in the field.

Per the performance requirements of ASTM D4161, the FWC joint will remain leak-free from twice the rated class pressure to a -0.8 atmosphere vacuum under pressure even when angularly turned and vertically deflected. HOBAS pipes, because of their constant OD and their centrifugally cast mold smooth exterior surface, may be joined with the FWC coupling at any place along their entire length with no preparation or machining other than chamfering of the pipe ends.

HOBAS FWC couplings are tested internally and externally (shown) to prove leak-free capability.

Pushing home HOBAS FWC coupling with a backhoe bucket makes assembly fast & easy.

Closure Couplings

Gravity Flow

Closures are Stainless Steel Couplings which are straight, loose collars with internal gasket systems. The joints seal by compressing the gaskets between the natural OD of any HOBAS pipe and the inside of the collar. The typical assembly sequence is shown in Figure 2. Easiest assembly is accomplished with the pipes and coupling in "straight" alignment with an adequate bevel (chamfer) on the outside edge of the pipes to be joined.

Stainless Steel Coupling

This consists of a casing, gasket and a lockpart. The purpose of the casing is to house the gasket and to press it onto the pipe surface when the lockpart is closed. The lockpart is designed to pull the two ends of the casing together circumferentially around the pipe. In order to achieve this, the coupling is labeled with a torque to ensure the gasket is compressed sufficiently against the pipe surface.

Couplings are sold individually, however, a pair are typically utilized at each closure location.

Pressure Systems

To effect closures in force mains, utilize mechanical couplings (with appropriate corrosion protection) such as manufactured by Dresser or Viking-Johnson.

Flush FWC Coupling

The flush FWC coupling joint consists of a reduced diameter FWC coupling fixed to one pipe end (in a recess) that seals to the spigot (recessed) end of another pipe by compressing the elastomeric gasket contained on the inside of the coupling. The joint has approximately the same OD as the pipe, so when assembled, the joint is essentially flush with the pipe outside surface. It is designed for pressure service in jacking installations. Allowable angular deflection limits and joining force are similar to the FWC coupling.

Stainless steel closure coupling.

Note: When using mechanical joints, torque bolts to the minimum needed for sealing - maximum 25 ft-lbs.

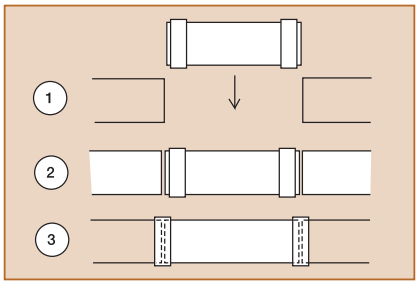
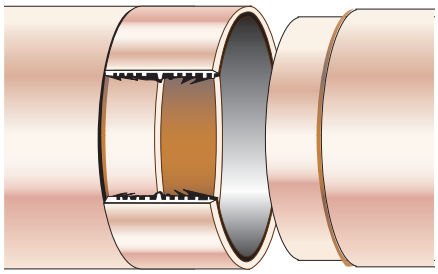
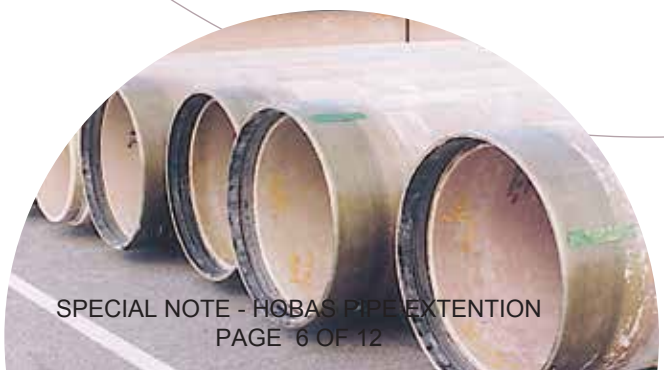


FIGURE 2 - Closure coupling installation & assembly.



Flush FWC Coupling.



Pressure jacking pipes' leak-free, flush joints.

A Direct Bury

A1 Trench Construction

A1.1 Trench width

The minimum trench width shall provide sufficient working room at the sides of the pipe to permit accurate placement and adequate compaction of the pipe zone backfill material. Suggested minimum trench dimensions are given in Figure 11.

A1.1.1 Wide trenches

There is no maximum limit on trench width, however, it is required that the pipe zone backfill material be placed and compacted as specified for the full width of the trench or a distance of two diameters on each side of the pipe, whichever is less.

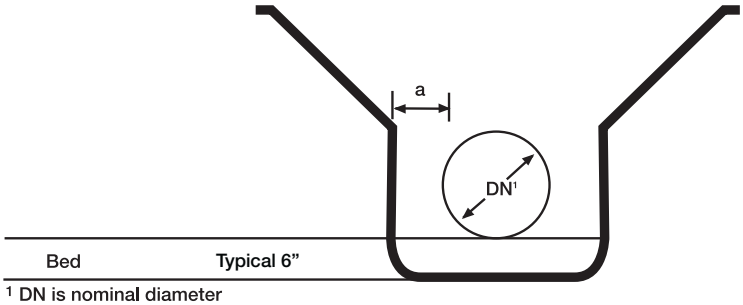
A1.2 Supported trench

When a permanent or temporary trench shoring is used, minimum trench width shall be as per paragraph A1.1 and Figure 11. When using movable trench supports, care should be exercised not to disturb the pipe location, jointing or its embedment. Removal of any trench protection below the top of the pipe and within two pipe diameters is not recommended after the pipe embedment has been compacted unless all voids created by sheeting removal are filled with properly densified embedment material and any loose soils at pipe zone elevation are properly compacted prior to loading the pipe with overburden. When possible, use movable trench supports on a shelf above the pipe with the pipe installed in a narrow, vertical wall subditch.

A1.3 Dewatering

Where conditions are such that running or standing water occurs in the trench bottom or the soil in the trench bottom displays a "quick" tendency, the water should be removed by pumps and suitable means such as well points or underdrain bedding. This system should be maintained in operation until the backfill has been placed to a sufficient height to prevent pipe flotation. Care should be taken that any underdrain is of proper gradation and thickness to prevent migration of material between the underdrain, pipe embedment and native soils in the trench, below and at the sides of the pipe.

DN (in.)	Typical Min. a (in.)	
	SPT[2] ≤ 8	SPT[2] > 8
18 to 20	6	4
24 to 33	9	6
36 to 48	12	8
51 to 72	18	12
78 to 126	24	16



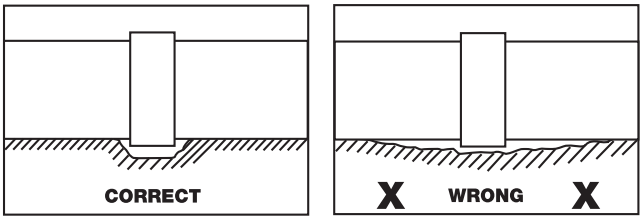
[1] DN is nominal diameter

[2] Standard Penetration Test Blows/ft.per ASTM D1586

FIGURE 11 - Standard Trench Dimensions

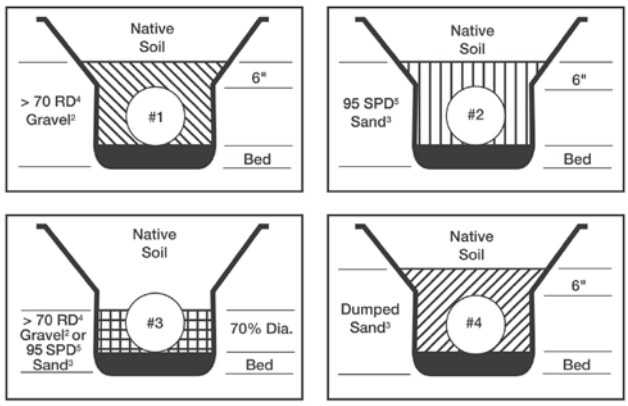
A1.4 Preparation of Trench Bottom

The trench bottom should be constructed to provide a firm, stable and uniform support for the full length of the pipe. Bell holes (Figure 12) should be provided at each joint to permit proper joint assembly and alignment. Any part of the trench bottom excavated below grade should be backfilled to grade and should be compacted as required to provide firm pipe support. When an unstable subgrade condition is encountered which will provide inadequate pipe support, additional trench depth should be excavated and refilled with suitable foundation material. In severe conditions special foundations may be required such as wood pile or sheeting capped by a concrete mat, wood sheeting with keyed-in plank foundation, or foundation material processed with cement or chemical stabilizers. A cushion of acceptable bedding material should always be provided between any special foundation and the pipe. Large rocks and debris should be removed to provide four inches of soil cushion below the pipe and accessories.



Note: After joint assembly, fill the bell holes with bedding material and compact as required.

FIGURE 12 - Bell Holes



[2] **Gravel is defined in section 14, paragraph A3**
[3] **Sand is defined in section 14, paragraph A3**
[4] **RD is relative density per ASTM D4253.**
[5] **SPD is standard proctor density per ASTM D698.**

FIGURE 13 - Standard Embedment Conditions

A2 Standard Embedment Conditions

Four standard embedment conditions are given in Figure 13. Others may be acceptable. Please consult us for advice on options.

A3 Pipe Zone (Embedment) Backfill Materials

Most coarse grained soils as classified by ASTM D2487, Classification of Soils for Engineering Purposes, are acceptable bedding and pipe zone (embedment) backfill materials as given in the adjacent table.

Specification	Definition	Symbols
Gravel	**Gravel or crushed rock**	**GW, GP GW-GC, GW-GM GP-GC, GP-GM**
Sand	**Sand or sand-gravel mixtures**	**SW, SP SW-SC, SW-SM SP-SC, SP-SM**

Maximum grain size should typically not exceed 1 to $1^1/_2$ times the pipe wall thickness or $1^1/_2$ inches whichever is smaller.

Well graded materials that will minimize voids in the embedment materials should be used in cases where migration of fines in the trench wall material into the embedment can be anticipated. Alternatively, separate the open graded material from the non-cohesive soil with a filter fabric to prevent migration of the smaller grained soil into the open graded material. Such migration is undesirable since it would reduce the soil density near the pipe zone and thereby lessen the pipe support.

Embedment materials should contain no debris, foreign or frozen materials.

A4 Bedding

A firm, uniform bed should be prepared to fully support the pipe along its entire length (Figure 14). Bedding material should be as specified on Figure 13 and in paragraph A3. Bedding minimum depth should be equal to 25% of the nominal diameter or six inches, whichever is less (Figure 11).

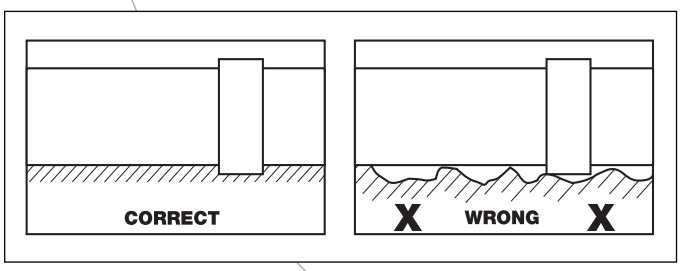


FIGURE 14 - Bedding

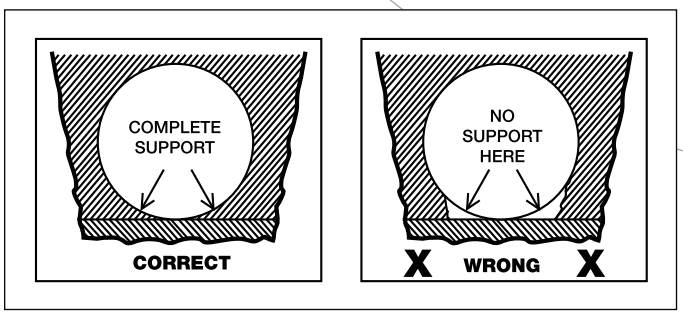


FIGURE 15 - Haunching

A firm trench bottom must be provided (see paragraphs A1.3 and A1.4). Initially place and compact bedding to achieve $^2/_3$ of the total bed thickness (normally four inches). Loosely place the remaining bedding material to achieve a uniform soft cushion in which to seat the pipe invert (bottom).

After joining pipes, assure that all bell holes are filled with the appropriate embedment materials and compacted as specified.

Note: Do not use blocking to adjust pipe grade.

A5 Haunching

A very important factor affecting pipe performance and deflection is the haunching material and its density. Material should be placed and consolidated under the pipe (Figure 15) while avoiding both vertical and lateral displacement of the pipe from proper grade and alignment.

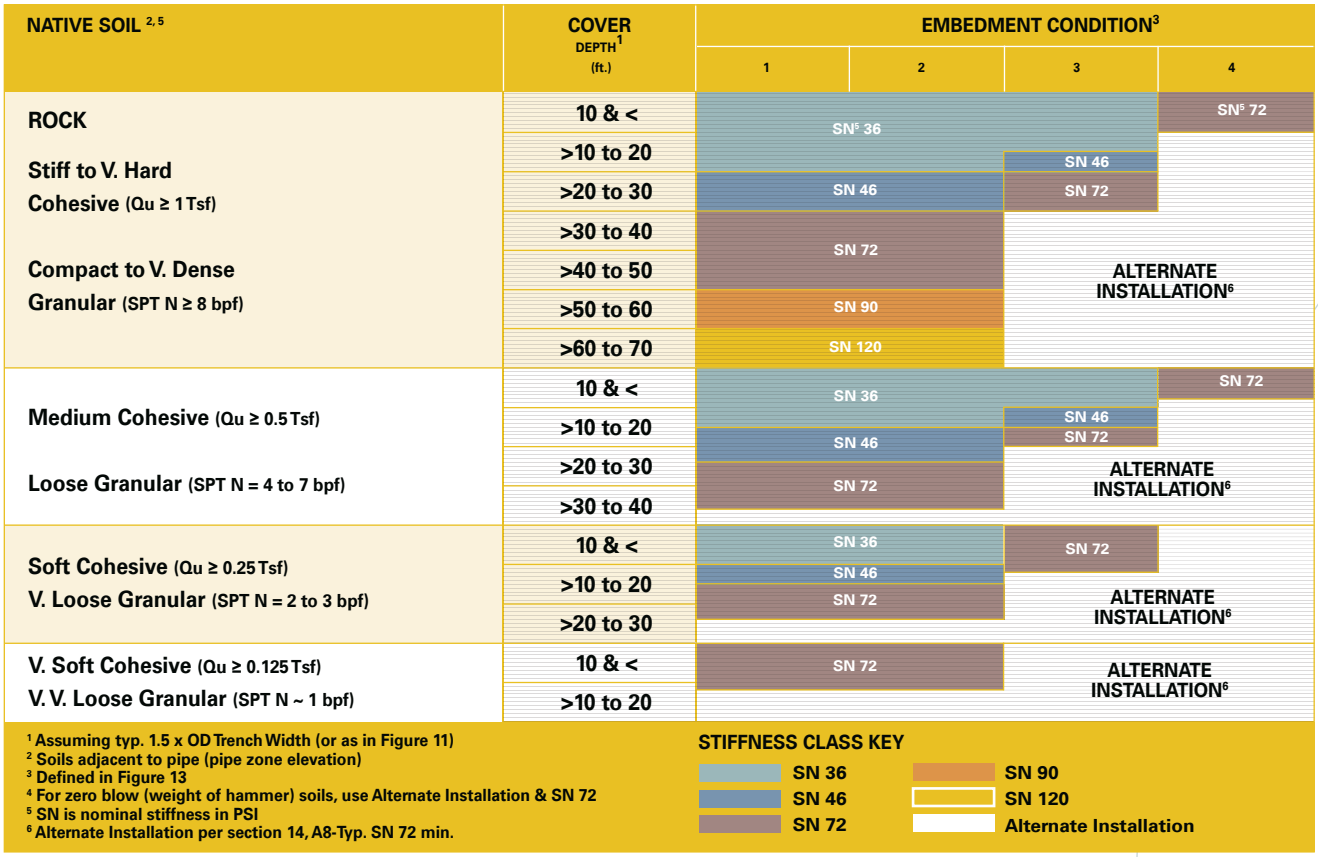
A6 Backfilling

Pipe zone (embedment) material shall be as specified on Figure 13 and in paragraph A3. (It must be the same as the bedding material to prevent potential migration.)

Place and compact the embedment material in lifts to achieve the depths and densities specified on Figure 13. Little or no tamping of the initial backfill directly over the top of the pipe should be done to avoid disturbing the embedded pipe.

Remaining backfill may be the native trench material provided clumps and boulders larger than three to four inches in size are not used until 12 inches of pipe cover has been achieved.

FIGURE 16 - Maximum Cover Depth[1]



A6.1 Maximum Cover Depth

Maximum recommended cover depth is given in Figure 16.

A6.2 Minimum Cover for Traffic Load Application

Minimum recommended cover depth of compacted fill above the pipe crown prior to application of vehicle loads is given in the above chart. Installation in poor soils or at shallower cover depths is possible by using a surface bridging slab or pipe encasement in concrete or similar.

Embedment Condition[1]	Minimum Cover (ft) for HS20 Load[2] SN 18	SN 36 or 46	SN 72
1	4	3	2
2	5	4	3
3	–	5	4
4	–	–	5

[1] See Figure 13. [2] Installation in poor soils or at shallower cover depths is possible with improved pipe support such as cement stabilized sand or concrete encasement.

A7 Pipe Deflection

Pipe initial vertical cross-section deflection measured within the first 24 hours after completion of all backfilling and removal of dewatering systems, if used, shall not exceed 3% of the original pipe diameter. (See Appendix G for minimum inside diameters.)

Pipe deflection after 30 days should typically not exceed 4% of the original pipe diameter. Maximum long-term pipe deflection is 5% of the original pipe diameter. (See Appendix G for minimum inside diameters.) Maximum long-term deflection for pipes with vinyl ester resin liner is 4%.

For very high stiffness pipes (approx. SN 120 and above), the maximum long-term deflection may be reduced and the 24 hour and 30 day deflection limits also decreased proportionally.

A8 Alternate Installations

Alternate installations, as indicated on Figure 16, include cement stabilized embedment, wide trenching, permanent sheeting, geo-fabrics or combinations of these systems. Installation design for these situations should be engineered to satisfy the specific conditions and circumstances that are present.

CCFRPM Pipe for Direct Bury Installation - Gravity Service

Part I General

1.01 Section Includes

A. Centrifugally Cast Fiberglass Reinforced Polymer Mortar Pipe. (CCFRPM)

1.02 References

A. ASTM D3262 - Standard Specification for "Fiberglass" (Glass-Fiber-Reinforced Thermosetting-Resin) Sewer Pipe.

B. ASTM D4161 - Standard Specification for "Fiberglass" (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe Joints Using Flexible Elastomeric Seals.

C. ASTM D2412 - Standard Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading.

D. ASTM D3681 – Standard Test Method for Chemical Resistance of "Fiber glass" Pipe in a Deflected Condition.

E. ASTM D638 – Test Method for Tensile Properties of Plastics.

1.03 Specifications

A. The specifications contained herein govern, unless otherwise agreed upon between purchaser and supplier.

Part 2 Products

2.01 Materials

A. Resin Systems: The manufacturer shall use only polyester resin systems with a proven history of performance in this particular application. The historical data shall have been acquired from a composite material of similar construction and composition as the proposed product.

B. Glass Reinforcements: The reinforcing glass fibers used to manufacture the components shall be of highest quality commercial grade E-glass filaments with binder and sizing compatible with impregnating resins.

C. Silica Sand: Sand shall be minimum 98% silica with a maximum moisture content of 0.2%.

D. Additives: Resin additives, such as curing agents, pigments, dyes, fillers, thixotropic agents, etc., when used, shall not detrimentally effect the performance of the product.

E. Elastomeric Gaskets: Gaskets shall meet ASTM F477 and be supplied by qualified gasket manufacturers and be suitable for the service intended.

2.02 Manufacture and Construction

A. Pipes: Manufacture pipe by the centrifugal casting process to result in a dense, nonporous, corrosion-resistant, consistent composite structure. The interior surface of the pipes exposed to sewer flow shall provide crack resistance and abrasion resistance. The exterior surface of the pipes shall be comprised of a sand and resin layer which provides UV protection to the exterior. Pipes shall be Type 1, Liner 2, Grade 3 per ASTM D3262.

B. Joints: Unless otherwise specified, the pipe shall be field connected with fiberglass sleeve couplings that utilize elastomeric sealing gaskets as the sole means to maintain joint watertightness. The joints must meet the performance requirements of ASTM D4161. Joints at tie-ins, when needed, may utilize gasket-sealed closure couplings.

C. Fittings: Flanges, elbows, reducers, tees, wyes, laterals and other fittings shall be capable of withstanding all operating conditions when installed. They may be contact molded or manufactured from mitered sections of pipe joined by glass-fiber-reinforced overlays. Properly protected standard ductile iron, fusion-bonded epoxy- coated steel and stainless steel fittings may also be used.

D. Acceptable Manufacturer: HOBAS Pipe USA.

2.03 Dimensions

A. Diameters: The actual outside diameter (18" to 48") of the pipes shall be in accordance with ASTM D3262. For other diameters, OD's shall be per manufacturer's literature.

B. Lengths: Pipe shall be supplied in nominal lengths of 20 feet. Actual laying length shall be nominal +1, -4 inches. At least 90% of the total footage of each size and class of pipe, excluding special order lengths, shall be furnished in nominal length sections.

C. Wall Thickness: The minimum wall thickness shall be the stated design thickness.

D. End Squareness: Pipe ends shall be square to the pipe axis with a maximum tolerance of 1/8".

2.04 Testing

A. Pipes: Pipes shall be manufactured and tested in accordance with ASTM D3262.

B. Joints: Coupling joints shall meet the requirements of ASTM D4161.

C. Stiffness: Minimum pipe stiffness when tested in accordance with ASTM D2412 shall normally be 36 psi.

2.05 Customer Inspection

A. The Owner or other designated representative shall be entitled to inspect pipes or witness the pipe manufacturing.

B. Manufacturer's Notification to Customer: Should the Owner request to see specific pipes during any phase of the manufacturing process, the manufacturer must provide the Owner with adequate advance notice of when and where the production of those pipes will take place.

2.06 Packaging, Handling, Shipping

A. Packaging, handling, and shipping shall be done in accordance with the manufacturer's instructions.

Part 3 Execution

3.01 Installation

A. Burial: The bedding and burial of pipe and fittings shall be in accordance with the project plans and specifications and the manufacturer's requirements (Section 14 A of the product brochure)

B. Pipe Handling: Use textile slings, other suitable materials or a forklift. Use of chains or cables is not recommended.

C. Jointing:

1. Clean ends of pipe and coupling components.

2. Apply joint lubricant to pipe ends and elastomeric seals of coupling. Use only lubricants approved by the pipe manufacturer.

3. Use suitable equipment and end protection to push or pull the pipes together.

4. Do not exceed forces recommended by the manufacturer for coupling pipe.

5. Join pipes in straight alignment then deflect to required angle. Do not allow the deflection angle to exceed the deflection permitted by the manufacturer.

D. Field Tests:

1. Infiltration / Exfiltration Test: Maximum allowable leakage shall be per local specification requirements.

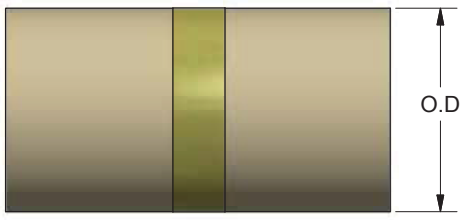
2. Low Pressure Air Test: Each reach may be tested with air pressure (max 5 psi). The system passes the test if the pressure drop due to leakage through the pipe or pipe joints is less than or equal to the specified amount over the prescribed time period.

3. Individual Joint Testing: For pipes large enough to enter, individual joints may be pressure tested with a portable tester to 5 psi max. with air or water in lieu of line infiltration, exfiltration or air testing.

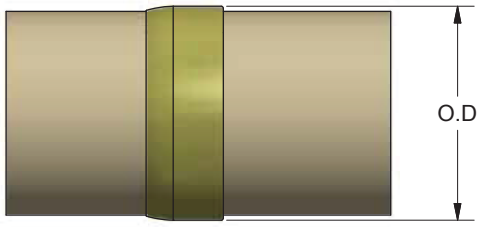
4. Deflection: Maximum allowable long-term deflection is normally 5% of the initial diameter.

Appendix C
Joint Dimensions & Weights

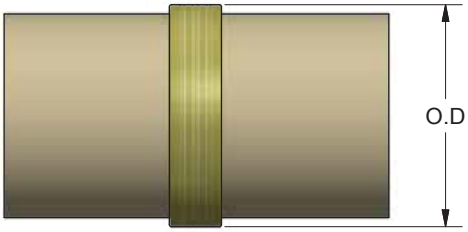
Nominal Pipe Size (in.)	Nominal Outside Diameter, OD (in.)							
	FWC Coupling					Low Profile Bell	Flush Bell-Spigot	Pressure Relining
	PN 25 PN 50	PN 100	PN 150	PN 200	PN 250			
18	21.3	21.3	21.3	21.3	21.4	20.4	19.5	
20	23.4	23.4	23.4	23.4	23.6	22.5	21.6	
24	27.6	27.6	27.6	27.7	27.9	26.8	25.8	
27	29.8	29.8	29.8	30.0	30.2	29.0	28.0	
28	31.9	31.9	32.0	32.1	32.3	31.0	30.0	
30	33.9	33.9	34.0	34.2	34.4	33.0	32.0	
33	35.9	35.9	36.1	36.3		35.0	34.0	
36	40.2	40.2	40.4	40.6		39.3	38.3	
41	44.9	44.9	45.2	45.5		44.0	42.9	FWC
42	46.5	46.5	46.8	47.2		45.6	44.5	
44	47.9	47.9	48.2	48.6		47.0	45.9	
45	49.7	49.7	50.0	50.4		48.8	47.7	
48	52.8	52.9	53.2	53.6		51.9	50.8	
51	56.0	56.1	56.5	56.8		55.0	53.9	
54	59.2	59.4	59.8	60.1		58.2	57.1	O.D.'s Plus
57	62.2	62.5	62.8			61.2	60.0	
60	65.2	65.5	65.9			64.1	62.9	
63	68.3	68.7	69.1			67.2	66.0	
66	71.6	72.0	72.4			70.4	69.2	
69	74.9	75.4	75.8			73.8	72.5	0.4
72	77.9	78.3				76.7	75.4	
78	84.2	84.7				82.9	81.6	
84	89.6	90.2				88.4	87.0	
85	91.4	92.0				90.0	88.6	
90	97.1	97.8				95.7	94.3	
96	102.5	103.1				101.0	99.5	
104	111.1					109.5	108.0	
110	117.2					115.5	114.0	
120	129.3					127.5	126.0	
126	135.8					134.0	132.5	



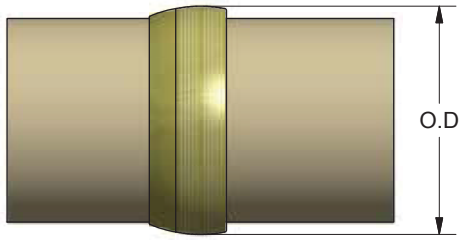
Flush Bell-Spigot



Low Profile Bell



FWC Coupling



Pressure Relining

US Army Corps of Engineers

Standard Operating Procedure
for
Benching and Compaction for Levee and Floodwall Modifications

30 November 2010

1. Placing backfill *within the levee embankment* will require the following:

a) The surface of the levee shall be stripped of organics and topsoil to a depth of approximately 6 inches prior to benching the levee sideslope.
b) The existing levee embankment shall be over-excavated in all directions by benching 1 ft vertical and 3 ft horizontal into stiff undisturbed soil. A level bottom surface day-lighting toward the levee toe shall be provided from which the upward benching on the sides shall initiate. Benching may have to be performed by hand methods or using small-scale excavation equipment.
c) The levee soil on which the backfill is to be placed should not be excavated until immediately before backfilling, and shall not be allowed to become overly wet or dry while exposed. The surface area of the benches shall be scarified as necessary to ensure a good bond between the existing soil and the backfill material.
d) Backfill material must be low permeability soils - impermeable soils (e.g. SC, CL or CL-ML with an estimated hydraulic conductivity less than 1 x10^{-5} cm/sec) in accordance with ASTM 2488 - USCS classification system.
e) Backfill material shall be placed in loose lifts with thicknesses not to exceed 8-inches and compacted in the holes to a minimum 95 percent Standard Proctor density determined at optimum moisture content according to ASTM D-698. Moisture control limits are to be within -1% to +3% of optimum.
f) The finished riverside or landside slope of the levee shall be graded to match the existing levee slopes upstream and downstream. A site-specific grading plan must be approved for projects where the final grade differs from the original grade.
g) The disturbed areas shall be seeded and covered with a bio-degradable geotextile when final grading is complete.

2. Placing backfill materials *outside the projected levee slopes but within a minimum of 15 feet of the toe of the Levee or face of the Floodwall* requires the following:

a) Backfill material must be low permeability soils - impermeable soils (e.g. SC, CL or CL-ML with an estimated hydraulic conductivity less than 1 x10-5 cm/sec) in accordance with ASTM 2488 - USCS classification system.
b) Backfill shall be placed in loose lifts with thicknesses not to exceed 8-inches and compacted in the holes to a minimum 95 percent Standard Proctor density determined at optimum moisture content according to ASTM D-698, unless otherwise directed. Moisture control limits are to be within -1% to +3% of optimum.
c) The disturbed areas shall be seeded and covered with a bio-degradable geotextile when final grading is complete.

SPECIAL NOTES FOR ASPHALT INSTALLATION

I. DESCRIPTION

Except as provided herein, perform all work in accordance with the Department's 2012 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) Asphalt Installation; (3) Erosion Control; and 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. Erosion Control. See Special Note for Erosion Control.

III. CONSTRUCTION METHODS

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

B. Asphalt Pavement Installation. All work shall be completed according to Section 401, 402, & 403. Superelevation Improvements are to be completed by placing asphalt base, leveling and wedging, and asphalt surface mixtures as indicated on the Typical Sections, Pavement Detail, and/or Plan Sheets.

C. Milling and Level and Wedging. Milling and Level and Wedging, shall be determined by the Engineer. Asphalt quantities per location shall be determined by the Engineer according to Section 403.

D. Erosion Control. See Special Note for Erosion Control Plan.

E. Final Dressing, Clean Up, Seeding and Protection, and Restoration. After all work is completed, remove all waste and debris from the job site. Grade all disturbed areas to blend with the adjacent roadway features and to provide a suitable seed bed. Perform Class A Final dressing on all disturbed areas. Seed and protect all disturbed earthen areas according to the Special Notes for Erosion Control Plan.

F. 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.

G. Disposal of Waste. 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 Special Note for Waste and Borrow).

IV. METHOD OF MEASUREMENT

A. Maintain and Control Traffic. See Traffic Control Plan. Maintain and Control Traffic will be measured as Lump Sum.

B. Site Preparation. Other than the bid items listed, site preparation will not be measured for payment, but shall be incidental to the project bid items.

C. Asphalt Pavement Installation. The Department will measure the quantity according to Sections 109, 402, & 403.

D. Milling and Level and Wedging. The Department will measure the quantity according to Section 403.

E. Erosion Control. See Special Note for Erosion Control.

V. BASIS OF PAYMENT

A. Maintain and Control Traffic. The Department will pay the quantity as Lump Sum.

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. Asphalt Pavement Installation. The Department will make payment for the completed and accepted quantities in Tons according to Section 403.

D. Milling and Level and Wedging. The Department will make payment for the completed and accepted quantities in Tons according to Section 403.

E. Erosion Control. See Special Note for Erosion Control.

SPECIAL NOTES FOR DITCHING AND SHOULDERING

I. DESCRIPTION

Except as provided herein, perform all work in accordance with the Department's 2012 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) Ditching; (3) Erosion Control; and 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. Shouldering. Shouldering shall be completed using compacted earth and DGA aggregate, as shown on the special shoulder detail.

C. 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 saw cutting and removing pavement; clearing and grubbing, and incidental excavation and backfilling; removal of existing pipe, headwalls and any obstructions or items; restoration of pavements, slopes, and all disturbed areas; final dressing and cleanup; and disposal of materials. Perform all site preparation only as approved or directed by the Engineer.

Provide positive drainage of pavement, shoulders, slopes, and ditches at all times during and upon completion of construction

C. Ditching and Shouldering. All work will be completed according to Section 209, or as specified in the Proposal notes, Plan Sheets, Typical Sections, or as directed by the Engineer. Shouldering will consist of any necessary grading and/or shaping of the existing shoulder, or providing suitable earth material and grading, shaping, and compacting the earth material, in order to achieve the proposed shoulder dimensions as detailed in the Typical Sections. After any necessary ditching and shouldering is

completed, a 4" layer of DGA shall be placed along the shoulders and under guardrail, as detailed on the Typical Sections and Plan Sheets. Two applications of Chip Seal are to be applied on the DGA along the shoulder and on the DGA under the guardrail, as shown on the Typical Sections.

Erosion Control Blanket is to be installed in the areas of earth shoulders as approved by the Engineer.

D. Erosion Control. See Special Note for Erosion Control Plan.

E. Final Dressing, Clean Up, Seeding and Protection, and Restoration. After all work is completed, remove all waste and debris from the job site. Grade all disturbed areas to blend with the adjacent roadway features and to provide a suitable seed bed. Perform Class A Final dressing on all disturbed areas. Seed and protect all disturbed earthen areas according to the Special Notes for Erosion Control Plan.

F. 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.

G. Disposal of Waste. 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 Special Note for Waste and Borrow).

IV. METHOD OF MEASUREMENT

A. Maintain and Control Traffic. See Traffic Control Plan. Maintain and Control Traffic will be measured as Lump Sum.

B. Site Preparation. Other than the bid items listed, site preparation will not be measured for payment, but shall be incidental to the project bid items.

C. Ditching and Shouldering. Contrary to Section 209.04 the Department will measure the bid item "Ditching and Shouldering" in linear feet along each side of the roadway as the length of the actual ditching and/or shouldering work performed. Therefore, for areas where ditching and shouldering occurs on both sides of the road, the Department will measure each side independently. No additional compensation will be allowed for excavation of rock encountered while executing the bid item "Ditching and Shouldering." The Department will not measure cleaning pipe structures 36 inches or less in diameter; reshaping any deformed ends on metal entrance pipe; and disposing of unsuitable entrance pipe and will consider them incidental to Ditching and

Shouldering. The Department will not measure disposal of the materials removed by clearing and ditching and will consider it incidental to Ditching and Shouldering.

D. Erosion Control. See Special Note for Erosion Control.

V. BASIS OF PAYMENT

A. Maintain and Control Traffic. The Department will pay the quantity as Lump Sum.

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. Ditching and Shouldering. The Department will measure the quantity in linear feet along one side of the roadway. Therefore, for areas where shouldering occurs on both sides of the road, the Department will measure each side independently.

D. Erosion Control. See Special Note for Erosion Control.
Contractor shall immediately correct any disturbance to all drainage features and structures caused by Contractor's work.

SPECIAL NOTE FOR EROSION CONTROL

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 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 steam.

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.

IV. MEASUREMENT

Erosion control items will be measured according to Section 212.04 and Section 213.04, as applicable.

V. BASIS OF PAYMENT

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

SPECIAL NOTES FOR PIPE REPLACEMENTS / EXTENSIONS

I. DESCRIPTION

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

Maintaining and Controlling Traffic; Constructing pipe replacements and/or pipe extensions; Embankment and/or Excavation; Erosion Control; and 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. Levee Pipe Extension: Furnish Hobas Pipe. See the Hobas Pipe Extension Specs.

D. Flowable Fill. Furnish Flowable Fill for Pipe Backfill per Section 601.03.03(B).

E. 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 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 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 removing pipe, or 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, 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 centerline, flow lines and skew to obtain the best fit of the existing ditches and channels. Construct pipe bedding according to Section 701 and the applicable standard or Sepia Drawings. 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.

The Contractor will install the pipe replacements initially as shown in the Pipe Replacement Detail, excluding the Asphalt Surface. The Contractor shall wait a minimum of 48 hours after pipe replacement and placing flowable fill pipe backfill and Asphalt Base before placing Level and Wedge and Asphalt Surface. The pavement material used to place Asphalt Base shall be paid as Level & Wedging. During the waiting period, the Contractor is responsible for maintaining the driving surface. Materials used for maintenance shall be incidental to Maintain and Control Traffic. The total length of roadway at pipe replacement locations (not in curves receiving super elevation) to have Asphalt Surface pavement is 100 feet, with 50 feet beyond the pipe in each direction. Asphalt quantities per location shall be determined by the Engineer.

F. Levee Pipe Extension: Existing grout will be removed from between the existing pipe and the headwall as required in the Hobas Pipe Guide according to the Levee Pipe Connection Details and Hobas Guide Pipe Specification sufficient to allow for joining of the new pipe to the existing pipe. The existing headwall is to not be removed as it will be covered by earth when the fill material is placed. Construct Hobas Pipe Extension as set forth in the Hobas Pipe Guide according to the Extension Specification Notes.

*****Special Notice*****

*The City Engineer for the City of Paducah must be given a **48 hour** notice before the Levee pipes extensions are to actually be connected to the existing pipe in order for him to provide approval for making the connection.*

G. Pipe Backfill. With the exception of the Hobas pipe extension and contrary to Section 701.03.06, all other pipe will be backfilled with flowable fill. Backfill the pipe according to the Pipe Replacement Detail. Hobas pipe extensions will be backfilled as per KYTC Specifications and the Hobas Pipe Guide.

H. Embankments. Backfill pipe extensions and construct shoulder embankments as shown on the drawings or as directed by the Engineer. Provide positive drainage of slopes at all times during and upon completion of construction.

I. 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.

J. 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 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.

K. 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.

L. Disposal of Waste. 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.

M. Final Dressing, Clean Up, Seeding and Protection, and Restoration. After all work is complete, remove all waste and debris from the job site, clean all existing and new culvert pipe, and clean ditches. Grade all disturbed areas to blend with the adjacent roadways features and to provide a suitable seed bed. Perform Class A Final dressing on all disturbed areas. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

N. 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, 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 NOT measure the removal of existing headwalls but shall be incidental to “Remove Pipe”.

D. Remove Pipe. Removal of existing culvert and entrance pipe shall be measured according to Section 701.04.14. Any 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 necessary to install culvert or entrance pipe shall be incidental to the corresponding pipe bid items.

F. Levee Pipe Extension: Hobas Pipe will be measured by the linear feet.

G. Backfill the Pipe. Backfilling of pipe including the Hobas Pipe will NOT be measured for payment, but shall be incidental to the installation of the pipe.

H. Embankments. The Department will measure the quantity according to Section 206.

I. Final Dressing, Clean Up, Seeding and Protection, and Restoration. The Department

will NOT measure for payment the operations of Final Dressing, Clean Up, and Restoration. These activities shall be incidental. Seeding and Protection will be measured according to Section 212.

J. Erosion Control. See the Special Note for Erosion Control.

V. BASIS OF PAYMENT

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

B. 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.

C. Culvert and Entrance Pipe. Payment at the Contract unit price per linear foot shall be full compensation for furnishing all labor, materials, equipment and incidentals for furnishing and installing new culvert pipe.

D. Levee Pipe Extension: Hobas Pipe will be paid by the linear feet.

E. Pipe Backfill. The Department will NOT make payment for backfilling pipe, but shall be incidental to the installation of the pipe.

F. Embankments. The Department will make payment for the completed and accepted quantities in Cubic Yards according to Section 206.

G. Erosion Control. See Special Note for Erosion Control.

SPECIAL NOTE FOR SIGNAGE

The final advisory speeds and some sign types will have to be determined after the curve superelevation improvements and final surfacing operations have been completed. The Contractor shall notify the Engineer and District Traffic Engineer when all of the superelevation improvements and surfacing operations have been completed. Once notified, the Engineer and/or District Traffic Engineer will ball-bank the newly surfaced route to determine which curves require horizontal alignment signing and the appropriate advisory speeds of those curves. The Engineer and/or District Traffic Engineer will provide the Contractor with the final advisory speeds, any changes to proposed sign types, and the final quantities within three (3) weeks of being notified by the Contractor that final surfacing operations are complete. After the Contractor has received this information from the Engineer and/or the District Traffic Engineer, the Contractor shall then proceed to layout and stake the signing according to the Special Note for Staking, included elsewhere in this proposal.

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

The following signs and sign components shall be fabricated using Type IX sheeting:

- White sign legends on panel signs
- STOP (R1-1) signs
- ALL WAY (R1-3P) signs
- YIELD (R1-2) signs
- DO NOT ENTER (R5-1) signs
- WRONG WAY (R5-1a) signs

The following signs and sign components shall be fabricated using Type IX 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 IX 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 point arrow (W16-7P) plaques that supplement Bicycle 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

All other permanent signs shall be fabricated using Type III or Type IV sheeting.

SPECIAL NOTE FOR SIGNING

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, minor tree trimming when required for visibility of signs, 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. covering 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 sheet to be used as the sign face 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 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 posts shall be of sufficient lengths to extend from the top of the sign to the required embedment in the anchor. Splicing of the sign post shall NOT be allowed. Type I steel posts shall be either standard installation in soil, with soil stabilizer, or a Type 'D' (breakaway sign post support system) installation. For standard installations, if solid rock is encountered, the Contractor shall drill holes to the required depth into the rock and backfill the post with concrete. The cost shall be incidental to Type I steel post, and soil stabilizers will not be required. Approved manufacturers for breakaway (Type 'D') post systems have been placed on the list of approved materials. All steel post shall meet the requirements of Section 832. All hardware including, but not limited to, sign post anchors, soil stabilizers, 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. 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 in the summaries, Reflective Sign Post Panels shall be 2" wide x 60" tall (or 84" tall for urban installations) and 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. 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 IX and/or XI Sheeting)
- White and yellow (Type III and/or IV Sheeting).

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.

Post will be attached to the anchor 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 there are more than one sign is mounted beside each other, the posts shall be spaced to provide approximately six inches (6") of spacing between sings.

E. 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.

F. 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.

G. Right of Way Limits. The Department has not established exact limits of the Right-of-Way. Unless a consent and release from 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.

H. Caution. The information in this proposal and shown on the plans and the type of work listed herein are approximate only and are not to be taken as an accurate evaluation of the

materials and conditions to be encountered during construction; the bidder must draw their own conclusions. The Department does not give any guarantee as to the accuracy of the data and no claim for money or time extension will be considered if the conditions encountered are not in accordance with the information shown.

I. 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 the Engineer's decision shall be final and binding upon the Contractor.

J. 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.

K. 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.

L. 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. 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. 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.

F. Erosion Control. See Special Note for Erosion Control.

G. 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.

H. 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. 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 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 proposal.

D. 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.

E. Erosion Control. See Special Note for Erosion Control.

SPECIAL NOTE FOR SPECIAL EMBANKMENT

I. DESCRIPTION

Except as provided herein, perform all work in accordance with the Department's 2012 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) Special Embankment; (3) Erosion Control; and 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. Special Embankment. Special embankment shall be completed using compacted earth as specified in the US Army Corps of Engineers Standard Operating Procedure for Benching and Compaction for Levee and Floodwall Modification.

C. 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 saw cutting and removing pavement; clearing and grubbing, and incidental excavation and backfilling; removal of existing pipe, headwalls and any obstructions or items; restoration of pavements, slopes, and all disturbed areas; final dressing and cleanup; and disposal of materials. Perform all site preparation only as approved or directed by the Engineer.

Provide positive drainage of pavement, shoulders, slopes, and ditches at all times during and upon completion of construction

C. Special Embankment. See US Army Corps of Engineers Standard Operating Procedure for Benching and Compaction for Levee and Floodwall Modification.

D. Erosion Control. See Special Note for Erosion Control Plan.

E. Final Dressing, Clean Up, Seeding and Protection, and Restoration. After all work is completed, remove all waste and debris from the job site. Grade all disturbed areas to blend with the adjacent roadway features and to provide a suitable seed bed. Perform Class A Final dressing on all disturbed areas. Seed and protect all disturbed earthen areas within 15 feet of the toe of the levee according to US Army Corps of Engineers Standard Operating Procedure for Benching and Compaction for Levee and Floodwall Modification. Seed and protect all other earthen areas according to the Special Notes for Erosion Control Plan.

F. 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.

G. Disposal of Waste. 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 Special Note for Waste and Borrow).

IV. METHOD OF MEASUREMENT

A. Maintain and Control Traffic. See Traffic Control Plan. Maintain and Control Traffic will be measured as Lump Sum.

B. Site Preparation. Other than the bid items listed, site preparation will not be measured for payment, but shall be incidental to the project bid items.

C. Special Embankment. The Department will measure the quantity in cubic yards as the design quantity shown within the neat lines of the cross sections on the Plans, increased or decreased by authorized adjustments as specified in Subsections 204.04.01 and 204.04.02.

The Department will not measure overhaul of material and will consider it incidental to Special Embankment.

D. Erosion Control. See Special Note for Erosion Control.

V. BASIS OF PAYMENT

A. Maintain and Control Traffic. The Department will pay the quantity as Lump Sum.

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. Special Embankment. Payment at the Contract unit price per cubic yard shall be full compensation for furnishing all labor, materials, equipment and incidentals for furnishing and installing Special Embankment under the bid item "Special Embankment."

D. Erosion Control. See Special Note for Erosion Control.
Contractor shall immediately correct any disturbance to all drainage features and structures caused by Contractor's work.

SPECIAL NOTE FOR STAKING

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

1. Contrary to Section 201, perform items 1-3 usually performed by the Engineer.
2. Establish typical section cross slopes for superelevation improvements, transitions and tapers, and details to align the culvert extensions with the existing culvert and to match the existing roadway alignment and curvature to ensure positive drainage upon completion of the work.
3. 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.
4. Prior to incorporating into the work, obtain the Engineers approval of all designs and revisions to be provided by the Contractor.
5. Prior to ordering sign material, notify and coordinate with the District Traffic Engineer, and perform a review of the proposed signs within this proposal (including removal and relocation of any existing signage). Using paint marks on the pavement, mag nails, stakes, or any other means approved by the Engineer, the Contractor shall mark and/or stake the proposed sign locations in the field. NOTE: 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 Sections 2C.05 through 2C.15 and Section 2C.46; Tables 2C-4, 2C-5, and 2C-6; and Figure 2C-2 of the Manual on Uniform on Traffic Control Devices (MUTCD), current edition. These Sections, Tables, and Figures within 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. **Before sign installation begins and after proposed sign locations have been staked, obtain final sign location approval from the District Traffic Engineer.**
6. Produce and furnish to the Engineer "As Built" plans of the superelevation improvements and the drainage/culvert improvements.
7. Perform any and all other staking operations required to control and construct the work.

SPECIAL NOTE FOR TREE, STUMP, AND BRUSH REMOVAL

I. DESCRIPTION

All work shall be performed in accordance with the Department's current Standard Specifications for Road and Bridge Construction and applicable Special Provisions, except as hereafter specified. Article references are to the Standard Specifications.

This work shall consist furnishing all equipment, labor, materials, and incidentals for the following: (1) Site Preparation; (2) Maintaining and controlling traffic; (3) Temporary erosion control and temporary pollution control; (4) Cutting, trimming, and/or removing trees, stumps, and/or brush as specified or directed by the Project Engineer; (5) Treating all cut stumps required by Project Engineer to prevent re-sprouting; (5) Clean up and disposal of waste; (6) Final dressing and seeding and protection; and (7) 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. The Contractor shall maintain and control traffic in accordance with the Traffic Control Plan.

B. Seeding and Protection. Use applicable Seed Mixture as specified per Section 212.03.03.

C. Erosion Control. See the Special Note for Erosion Control.

III. CONSTRUCTION METHODS

A. Maintain and Control Traffic. The Contractor shall maintain and control traffic in accordance with the Traffic Control Plan.

B. Cutting, Trimming, and/or Removing Trees, Stumps, and/or Brush. The Contractor shall cut trees and/or bushes as close to the ground as possible; three inches (3”) or less from ground line. The tree trimming listed in the summary shall be cleared as shown on the Tree Trimming Detail. Grinding of all tree stumps within the mowing zone shall be required as directed by the Engineer. All stumps that are listed on the summary and/or directed by the Engineer to be removed, are to be removed via mechanical grinding, or other methods approved by the Engineer, to a minimum depth of four (4) inches below the surrounding grade line. For trees that are cut, but will not be required to have their stump removed, treat the stump, within one hour of cutting, with the specified herbicide solution.

Replace and level any and all soil disturbed during the tree, stump, and brush removal and trimming operations. Leave the soil in a condition suitable for seeding that is level with surrounding soil grade, with no holes or indentions to catch water or present unsafe mowing conditions. This work will be incidental to the bid items "Remove Trees or Stumps" and "Trim and Remove Trees and Brush."

NOTE: Tree cutting restrictions apply. Trees that are Five (5) inches or greater (diameter at breast height) shall NOT be cut or trimmed between April 1ST and October 14TH. See the Special Note for Completion Dates & Liquidated Damages concerning damages if trees and/or bushes are cut outside of the specified time frame.

C. Removal of Tree, Stump, and Brush Debris. The Contractor will remove all debris and biomass from the trimming and/or removal of trees, stumps, and/or brush from the work site and dispose of such off the right-of-way in accordance with local, state, and federal solid waste laws and regulations. Cleanup and remove all existing down trees and brush located within the designated areas. At the discretion of the Project Engineer, the contractor may be permitted to chip and blow biomass onto non-mowing zones. Chips shall not be blown onto areas that would potentially restrict the flow of water in drainage ditches. All un-chipped biomass must be removed from roadway right-of-ways.

The Contractor shall keep the work zone free of accumulated waste material and debris at all times. Remove and dispose of all tree, stump, and brush chips off the right-of-way. Remove and dispose of all debris and waste material off the right-of-way as work is completed and at the end of each workday. Remove desirable wood pieces from the right-of-way at the end of each workday. Stockpile trees and brush off the right-of-way. At the discretion of the Project Engineer, the Contractor may be permitted to stockpile trees and brush at approved locations along the right-of-way.

The Contractor shall immediately correct any disturbance to all drainage features and structures caused by the Contractor's work.

D. Stump Treatment. Within one hour of cutting, the Contractor shall apply a stump treatment mix consisting of fifty percent (50%) Glyphosate (EPA Reg. No. 524-579) with water and add twelve (12) ounces of Imazapyr (EPA Reg. No. 241-431), as specified, per gallon of solution. The addition of a non-ionic surfactant 5% (v/v) shall be added to the solution to increase uptake of the herbicide solution into the root system. Generic formulations are not acceptable. Mix the herbicide solution in the presence of the Inspector. Include a color indicator in the herbicide solution to mark the treated stumps. Spray or paint the herbicide solution onto all cut stumps within one hour after cutting. Apply the herbicide solution in a manner to avoid drift onto surrounding vegetative ground cover. Stumps in the mowing zone, designated for mechanical grinding treatment, need not receive the herbicide treatment.

Provide herbicide material for the treatment of cut stumps meeting the following criteria:

a. Glyphosate

Active ingredient: (**Glyphosate**)
*Glyphosate, N-(phosphonomethyl)glycine, in the form of its potassium salt 48.7%
Inert ingredients.....51.3%
Total.....100.0%
* Contains 660 grams per liter or 5.5 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its potassium salt. Equivalent to 540 grams per liter or 4.5 pounds per U.S. gallon of the acid, glyphosate.
EPA Reg. No. 524-579

b. Imazapyr

Active ingredient: (**Imazapyr**)
*Isopropylamine salt of Imazapyr 2-[4,5-dihydro-4-methyl-4-(1methylethyl)-5oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid) 26.7%
Inert ingredients.....73.3%
Total.....100%
* Equivalent to 21.8 percent 2-[4,5-dihydro-4-methyl-4-(1methylethyl)-5oxo-1H-imidazolyl]-3-pyridinecarboxylic acid or 2 pounds acid per gallon.
EPA Reg. No. 241-431

KRS 217B requires that any individual who applies pesticides to Kentucky Highway Right-of-Way areas must be certified as a Pesticide Applicator under Category 6 guidelines. Comply with all current laws and regulations established by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and by KRS 217B that regulate the handling, use, and application of pesticides.

E. Property Damage. The Contractor will be responsible for all damage to public and/or private property resulting from his work.

F. Coordination with Utility Companies. NOTICE: Utility locations shown in the plans are approximate and have not been specifically located by the Department. Locate all underground, above ground and overhead utilities prior to beginning construction. The Contractor shall have the responsibility 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 Utility Owner while they relocate their facilities. The Contractor shall be responsible for repairing all utility damage that occurs as a result of his operations.

G. Right-of-Way Limits. The exact limits of the Right-of-Way have not been established by the Department. The Contractor shall limit his activities to obvious Right-of-Way, permanent or temporary easements, and any work areas secured by consent and release of the adjacent property owners. The Contractor shall be responsible for all encroachments onto private lands.

H. Clean Up, Disposal of Waste. Clean up and dispose of all removed debris by the end of each work day, 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 clean up or disposal of waste and debris from the project. See the Special Provision for Waste and Borrow Sites.

I. Final Dressing, Seeding and Protection. Apply final dressing, class A to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the appropriate Seed Mixture as specified in Section 212.03.03.

J. 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 the bid items “Remove Trees or Stumps” and/or “Tree & Brush Removal”.

C. Tree & Brush Removal. The Department will measure the quantity as per linear foot, per side of the highway. The horizontal width is not to extend beyond the obvious Right-of-Way limits, or as directed by the Engineer.

D. Stump Treatment. The Department will NOT measure for payment the operation of Stump Treatment. This activity shall be incidental to the bid items “Remove Trees or Stumps” and/or “Tree & Brush Removal”.

E. Clean Up, Disposal of Waste. The Department will NOT measure for payment the operations of Clean Up and Disposal of Waste. These activities shall be incidental to the project bid items.

F. Erosion Control. See the Special Note for Erosion Control.

V. BASIS OF PAYMENT

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

B. Tree & Brush Removal. The Department will make payment for the completed and accepted quantities per linear foot. The Department will consider payment at the contract unit price as full compensation for furnishing all materials, equipment, labor, other expenses, and all incidentals necessary to complete the work of trimming and removing the trees, stumps, and/or brush.

C. Erosion Control. See the Special Note for Erosion Control.

SPECIAL PROVISION FOR WASTE AND BORROW SITES

Obtain U.S. Army Corps of Engineer's approval before utilizing a waste or borrow site that involves "Waters of the United States". The Corps of Engineers defines "Waters of the United States" as perennial or intermittent streams, ponds or wetlands. The Corps of Engineers also considers ephemeral streams, typically dry except during rainfall but having a defined drainage channel, to be jurisdictional waters. Direct questions concerning any potential impacts to "Waters of the United States" to the attention of the appropriate District Office for the Corps of Engineers for a determination prior to disturbance. Be responsible for any fees associated with obtaining approval for waste and borrow sites from the U.S. Army Corps of Engineer or other appropriate regulatory agencies.

1-296 Waste & Borrow Sites
01/02/2012

COORDINATION OF WORK WITH OTHER CONTRACTS

Be advised, there may be an active project(s) adjacent to or within this project. The Engineer will coordinate the work of the Contractors. See Section 105.06.

1-3193 Coordination Contracts
01/02/2012

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 asphaltt 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.

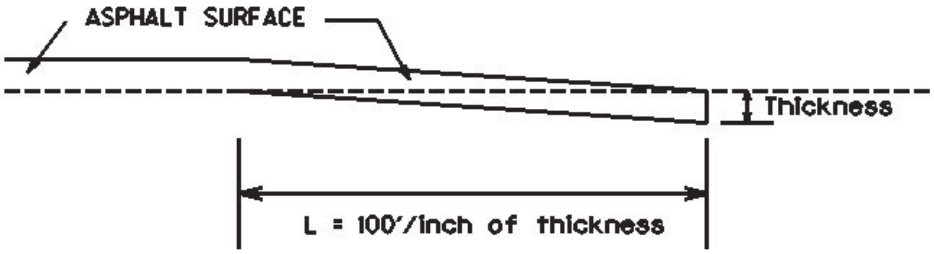
The Department will not measure any surface preparation required prior to applying the asphalt seal coat, but shall be incidental to “Asphalt Material for Asphalt Seal Coat”.

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

SPECIAL NOTE FOR EDGE KEY

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

1-3309 Edge key by Ton
01/02//2012

SPECIAL NOTES FOR GUARDRAIL

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, 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.

"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."

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.

C. Delineators for Guardrail. Furnish white and/or yellow Delineators for Guardrail according to Standard Drawing RBR-055 – Delineators for Guardrail, current edition.

D. DGA. Furnish Dense Graded Aggregate as per Section 805.

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 and 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, and adding and compacting 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 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.

D. DGA. Place and compact DGA along and under the guardrail as shown on the Typical Section(s). Place a Double Asphalt Seal Coat over the entire width of the DGA along and under the guardrail. See the Special Note for Double Asphalt Seal Coat.

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 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, End Treatments, Bridge End Connectors, Terminal Sections, and Remove Guardrail. The Department will measure according to Section 719.04.

D. DGA. The Department will measure according to Section 302.04.

E. Delineators for Guardrail. See Standard Drawing RBR-055 – Delineators for Guardrail.

F. 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.

G. Erosion Control. See the Special Note for Erosion Control.

V. BASIS OF PAYMENT

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

B. Guardrail, End Treatments, Bridge End Connectors, Terminal Sections, and Remove Guardrail. The Department will make payment according to Section 719.05.

C. DGA. The Department will make payment according to Section 302.05.

D. Delineators for Guardrail. See Standard Drawing RBR-055 – Delineators for Guardrail.

E. Erosion Control. See the Special Note for Erosion Control.

SPECIAL NOTE FOR
ASPHALT MILLING AND TEXTURING

Begin paving operations within **48 hours** of commencement of the milling operation. Continue paving operations continuously until completed. If paving operations are not begun within this time period, the Department will assess liquidated damages at the rate prescribed by Section 108.09 until such time as paving operations are begun.

Take possession of the millings and recycle the millings or dispose of the millings off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department.

1-3520 48 hours Contractor keeps millings
01/2/2012

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

Consider the dimensions shown on the typical sections for pavement and shoulder widths and thickness' to be nominal or typical dimensions. The Engineer may direct or approve varying the actual dimensions to be constructed to fit existing conditions. Do not widen existing pavement or shoulders unless specified elsewhere in this proposal or directed by the engineer.

1-3725 Typical Section Dimensions
01/02/2012

TRAFFIC CONTROL PLAN – SPECIAL NOTES

TRAFFIC CONTROL GENERAL.

Except as provided herein, traffic shall be maintained in accordance with the current editions of the Manual on Uniform Traffic Control Devices (MUTCD), Standard Specifications and the Standard Drawings. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic".

Contrary to Section 106.01, traffic control devices used on this project may be new, or used in like new condition, at the beginning of the work and maintained in like new condition until completion of the work. Any temporary traffic control items, devices, materials, and incidentals shall remain the property of the contractor unless otherwise addressed, when no longer needed.

PROJECT PHASING & CONSTRUCTION PROCEDURES

At the discretion of the Engineer, days and hours may be specified when lane closures will not be allowed. No lane closures will be allowed on the following dates:

Labor Day Weekend,	September 1-4, 2017
Thanksgiving Weekend	November 23-26, 2017
Christmas Holiday,	December 22-26, 2017
New Year's Holiday,	December 29, 2017-January 2, 2018
Memorial Day Weekend,	May 25-28, 2018
Independence Day Weekend,	June 29 – July 5, 2017

Construction Phasing for Clark Line Levee Crossing Reconstruction:

- **Phase I** consists of constructing making the new cut in the levee, beginning the levee benching and compaction according to the special notes for the USACE requirements to construct the new subgrade between Stations 251+50 to 255+25 and to the new Clark Line Road approach Station 48+90. Temporary drainage will be the responsibility of the contractor. All Phase I will be completed using flag persons.

- **Phase II** consists of a road closure for KY 1954 between Station 249+00 to Clark Line Road for the purpose of completing the roadway through the final base course between Stations 249+00 to Station 254+50, tying the new approach to existing KY 1954 at the south tie-in and constructing the new approach to Clark Line Road. The Tie-in to Clark Line Road will be completed using flag persons. (Traffic flow from Clark Line Road to northbound KY 1954 must be maintained during construction.) The old roadway will be removed to match slopes of the existing levee using USACE requirements. The extension

of the 3-60" Cross Drains will be completed. The extension of the 5 Levee Pipes will begin in this phase using the Hobas Pipe installation requirements.

- **Phase III** consists of Clark Line Road to Station 259+00 for the purpose of completing the roadway through the final base course and tying into KY 1954 at the north tie-in. (Traffic flow from Clark Line Road to southbound KY 1954 must be maintained during construction using flag persons.) The extension of the 5 levee pipes will be completed. The old roadway on the levee will be removed to match slopes of the existing levee using USACE requirements with the remaining segment of old roadway being constructed to drain as shown on the cross sections.

- **Phase IV** consists of moving all traffic to the new road, completing the headwalls on all pipe extensions, placing the final surface, guardrail, and all other items. All Phase IV will be completed using flag persons.

With the prior approval of the Engineer, KY 1954 may be closed for no more than a period of two weeks (14 Calendar days) from Station 249+00 to Clark Line Road while maintaining traffic flow from Clark Line Road to northbound KY 1954 during Phase II construction. Additionally, KY 1954 may be closed for no more than a period of two weeks (14 Calendar days) from Clark Line Road to Station 259+00 while maintaining traffic flow from Clark Line Road to southbound KY 1954 during Phase III construction. Timing for all road closures must be approved by the Engineer and extended road closures shall not occur before the last school day for McCracken County and must not occur after August 1, 2018. Any work in these limits requiring road closures that exceed the two weeks will result in a per day penalty of $2,400.

All tree removal and Tree canopy trimming/clearing are to be completed by no later than March 15, 2018. Any tree removals that are removed after that date may be subject to bat mitigation fees for disturbing or harming of bat hibernaculum's and will solely be the responsibility of the contractor as a non-reimbursable cost.

All other KY 1954 work must be completed at all times, maintaining alternating one way traffic during construction operations. The clear lane width shall be 9 feet. With approval of the Engineer, short stoppages of no more than 20 minutes for construction operations can be experienced, however, the contractor shall make all provisions for the passage of all emergency vehicles and school buses on an official run as quickly as possible in less than the 20 minute allowed stoppage time.

Asphalt Leveling and Wedging shall be placed in lifts to insure pavement keep drop offs are not too high and 2-lanes of traffic can be maintained overnight. Leveling and Wedging thicknesses shall be approved by the engineer.

The Department will provide public notification regarding approved closures. Notify the Engineer immediately and obtain approval of any deviations from the previously approved closure schedule. The contractor shall be responsible for road closure barricades and signs; work

zone and pavement condition signs; advanced warning signs; additional signs as directed by the Engineer; changeable message signs.

Under special circumstances, KYTC reserves the right to restrict the use of lane closures due to unforeseen special events.

MAINTAIN & CONTROL TRAFFIC.

Will be measured only once for payment.

SIGNS.

Contrary to Section 112.04.02, only long term signs (signs intended to be continuously in place for more than 3 days) will be measured for payment; short term signs (signs intended to be left in place for 3 days or less) will not be measured for payment but will be incidental to Maintain and Control Traffic.

LANE CLOSURES

Other than the allowed 2 week closure, do not leave lane closures in place during non-working hours.

VARIABLE MESSAGE SIGNS.

If deemed necessary by the Engineer, variable message signs will be installed, operated and maintained by the Department. Specifically, signs indicating the insufficient lane width for oversized loads may be required.

BARRICADES

Barricades used in lieu of barrels and cones for channelization or delineation will be incidental to Maintain and Control Traffic according to Section 112.04.01. Barricades used to protect pavement removal areas will be bid as each according to Section 112.04.04.

PAVEMENT EDGE DROP-OFFS

A pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation shall not have an elevation difference greater than 1½". Warning signs (MUTCD W8-9 or W8-9A, or W8-11) shall be placed in advance of and at 1500 feet intervals throughout the drop-off area. Dual posting on both sides of the traveled way shall be required.

All transverse transitions between newly surfaced pavement and the existing pavement areas that traffic may cross shall be wedged with asphalt mixture for leveling and wedging. Remove wedges prior to placement of the final surface course.

Pavement edges that traffic is not expected to cross, except accidentally, shall be treated as follows:

Less than 2" – No protection required.

2" to 4" – Place plastic drums, vertical panels, or barricades every 50 feet. Cones may be used in place of plastic drums, panels, and barricades during daylight hours. Wedge with asphalt mixture for leveling and wedging with a 1:1 or flatter slope in daylight hours, or 3:1 or flatter slope during nighttime hours, when work is not active in the drop-off area.

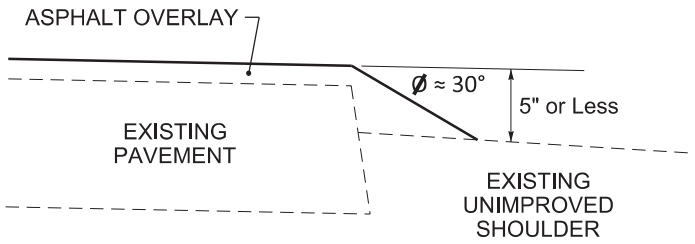
Temporary drop-offs during working hours, where construction operations are taking place, should be kept to minimum.

INGRESS AND EGRESS

Reasonable means of ingress and egress shall be maintained to all properties within the project limits. Access to fire hydrants must also be maintained at all times.

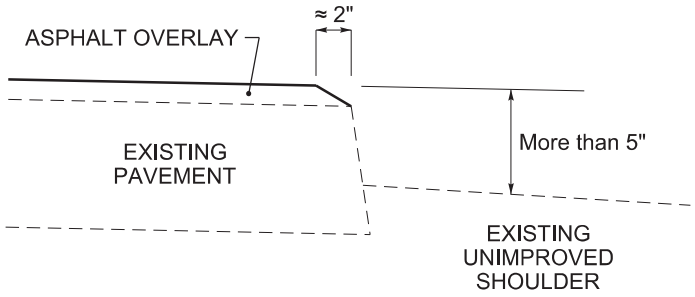
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to low shoulder with dropoff of 5 inches or less)



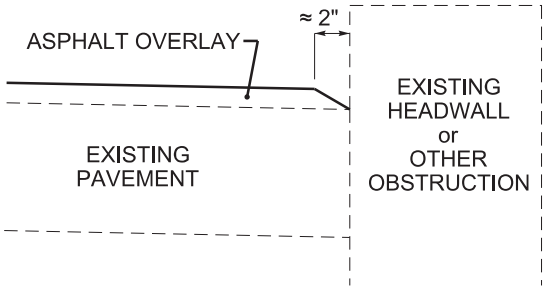
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to low shoulder with dropoff of more than 5 inches)



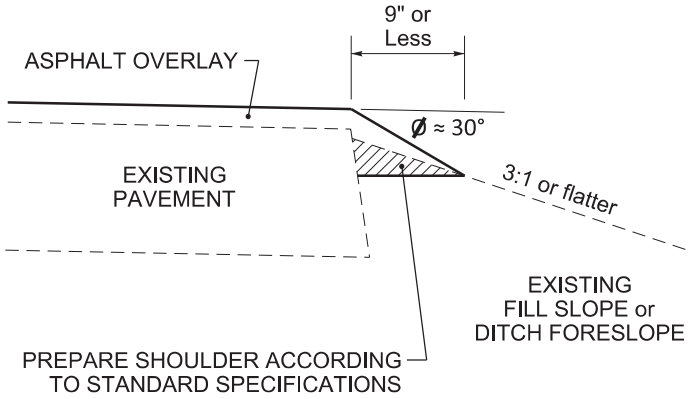
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to an obstruction, such as an existing headwall)



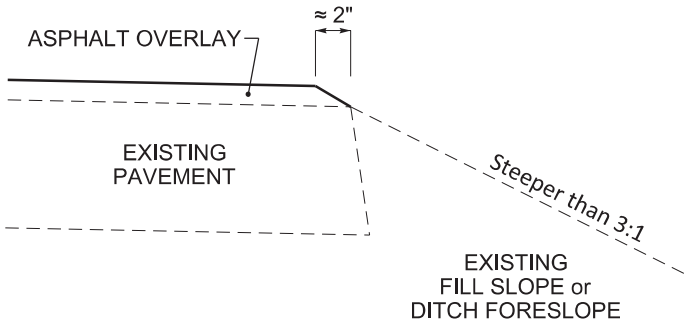
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to fill slope or ditch foreslope that is 3:1 or less)



DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to fill slope or ditch foreslope that is steeper than 3:1)



NOTES

1. DETAILS DO NOT APPLY TO OVERLAYS LESS THAN 1 INCH THICK.
2. THE DURABLE PAVEMENT EDGE DEVICE MAY BE DISENGAGED AT DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT, AS APROVED BY THE ENGINEER.

DRAWING NOT TO SCALE

DURABLE PAVEMENT EDGE DETAILS

SPECIAL NOTE FOR COMPLETION DATES & LIQUIDATED DAMAGES

The ultimate fixed completion date for this project will be _1/15/19_. Liquidated Damages for failure to complete the project on time will be assessed following Section 108.09.

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages in the amount of **$1,000** per day, per occurrence, for failure to perform cleanup and removal of debris and wood waste within the required time. Work will be suspended until the debris has been removed from the right-of-way.

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages for any and all road closures that exceed the approved time limits. Liquidated Damages in the amount of **$1,000** per hour will be assessed for each hour or fraction of an hour that KY 1954 remains closed after any approved road closure days.

Contrary to Section 108.09, Liquidated Damages will be assessed for the months of December through March.

Contrary to Section 108.09, Liquidated Damages will be assessed regardless of whether seasonal limitations prohibit the Contractor from performing work on the controlling operation.

All liquidated damages will be applied accumulatively.

All other applicable portions of Section 108 apply.

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

☒ Original ☐ Re-Certification — RIGHT OF WAY CERTIFICATION

ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)
01-9002.00	MCCRACKEN	12F0 FD52 073 9023201R	HSIP 9010 (267)

PROJECT DESCRIPTION

PERFORM LOW COST SAFETY IMPROVEMENTS ON KY 1954 (Husband Road).

☐ **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.

		EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
Total Number of Parcels on Project	5		
Number of Parcels That Have Been Acquired			
Signed Deed	5		
Condemnation			
Signed ROE			

Notes/ Comments (Use Additional Sheet if necessary)

LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	Greg L. Morgan
Signature		Signature	
Date		Date	12/8/17
Asst. Right of Way Director		FHWA	
Printed Name	Kelly R. Divine	Printed Name	
Signature		Signature	
Date	12/8/17	Date	

UTILITIES AND RAIL CERTIFICATION NOTE

McCRACKEN COUNTY, HSIP 9010268
FD52 073 90232 01U
HUSBANDS ROAD (KY 1954)/PERFORM LOW-COST SAFETY IMPROVEMENTS
ITEM NUMBER 1-9002.00

GENERAL PROJECT NOTE ON UTILITY PROTECTION

None

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

None

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

THE FOLLOWING COMPANIES ARE RELOCATING/ADJUSTING THEIR UTILITIES WITHIN THE PROJECT LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION

Paducah Water has 6”and 8” PVC water mains throughout the project, but plans to be relocated out of the disturbed limits by 10/31/17

Atmos Energy has a 2” and 4” steel gas mains located throughout the Clarkline Road intersection, but plans to be relocated out of the disturbed limits by 10/31/17

THE FOLLOWING COMPANIES HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE COMPANY OR THE COMPANY’S SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT

Jackson Purchase Energy Corporation has an overhead crossing on Clarkline Road that will need to be raised due to clearance issues with final grade. Their relocation will begin after the road contractor has cleared and grubbed the area in question. We fully expect JPEC to be able to be completely relocated by 1/31/18.

NOTE: The Department will consider submission of a bid as the Contractor’s agreement to not make any claims for additional compensation due to delays or other conditions created by the operations of Jackson Purchase Electric. Working days will not be charged for those days on which work on Jackson Purchase Electric facilities is delayed, as provided in the current edition of the KY Standard Specifications for Road and Bridge Construction. 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 KYTC Resident 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.

UTILITIES AND RAIL CERTIFICATION NOTE

McCRACKEN COUNTY, HSIP 9010268
FD52 073 90232 01U
HUSBANDS ROAD (KY 1954)/PERFORM LOW-COST SAFETY IMPROVEMENTS
ITEM NUMBER 1-9002.00

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

None

THE FOLLOWING RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

☒ **No Rail Involved** ☐ **Minimal Rail Involved (See Below)** ☐ **Rail Involved (See Below)**

UNDERGROUND FACILITY DAMAGE PROTECTION – BEFORE YOU DIG

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.

SPECIAL CAUTION NOTE – PROTECTION OF UTILITIES

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.

UTILITIES AND RAIL CERTIFICATION NOTE

McCRACKEN COUNTY, HSIP 9010268
FD52 073 90232 01U
HUSBANDS ROAD (KY 1954)/PERFORM LOW-COST SAFETY IMPROVEMENTS
ITEM NUMBER 1-9002.00

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.

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

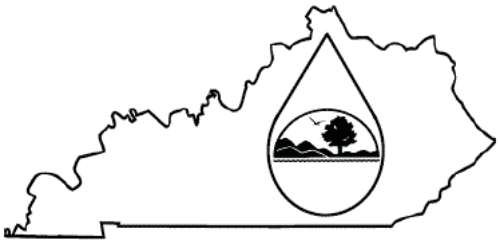
AREA UTILITIES CONTACT LIST

Utility Company/Agency	Contact Name	Contact Information
Big Rivers Electric	Dale Rector	270-827-2561
AT&T	Alan Shelby	270-444-5048
Atmos Energy	Eddie Tucker	270-556-2290
Jackson Purchase Energy	Scott Ribble	270-442-7321
Paducah Water	Jason Petersen	270-443-9627

CID 18-4001
McCracken County
Highway Safety Improvement Project along KY-1954
from MP 0.000 – 3.040

KPDES Notice of Intent for coverage of Storm Water Discharge Associated with Construction Activities Under the KPDES Storm Water General Permit KYR10.

eForm Submittal ID: 112806



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)

(*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field

Reason for Submittal:(*)	Agency Interest ID:	Permit Number:(✓)
Application for New Permit Coverage	Agency Interest ID	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:(✓)	First Name:(✓)	M.I.:	Last Name:(✓)
Kentucky Transportation Cabinet, District 1	Mike	MI	McGregor

Mailing Address:(*)	City:(*)	State:(*)	Zip:(*)
5501 Kentucky Dam Road	Paducah	Kentucky	42003

eMail Address:(*)	Business Phone:(*)	Alternate Phone:
Mike.McGregor@ky.gov	270-898-7457	Phone

SECTION II -- GENERAL SITE LOCATION INFORMATION

Project Name:(*)	Status of Owner/Operator(*)	SIC Code(*)
KYTC Project: CID 18-4001	State Government	1611 Highway and Street Const

Company Name:(✓)	First Name:(✓)	M.I.:	Last Name:(✓)
Company Name	First Name	MI	Last Name

Site Physical Address:(*)
KY-1954

City:(*)	State:(*)	Zip:(*)
Krebs	Kentucky	42003

County:(*)	Latitude(decimal degrees)(*)DMS to DD Converter (https://www.fcc.gov/media/radio/dms-decimal)	Longitude(decimal degrees)(*)
McCracken	36.986570	-88.598645

SECTION III -- SPECIFIC SITE ACTIVITY INFORMATION

Project Description:(*)
Highway Safety Improvement Project consisting of realignment, roadway resurfacing, shouldering, levee work, pipe replacement & extension, and guardrail installation

a. For single projects provide the following information

Total Number of Acres in Project:(✓)	Total Number of Acres Disturbed:(✓)
11.42	5.47
Anticipated Start Date:(✓)	Anticipated Completion Date:(✓)

b. For common plans of development provide the following information

Total Number of Acres in Project:(✓)	Total Number of Acres Disturbed:(✓)
# Acre(s)	# Acre(s)
Number of individual lots in development, if applicable:(✓)	Number of lots in development:(✓)
# lot(s)	# lot(s)
Total acreage of lots intended to be developed:(✓)	Number of acres intended to be disturbed at any one time:(✓)
Project Acres	Disturbed Acres
Anticipated Start Date:(✓)	Anticipated Completion Date:(✓)

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	36.970296	-88.600226	Blizzard Ponds Drainage Canal	Delete
2	Yes	36.971427	-88.600041	Blizzard Ponds Drainage Canal	Delete
3	Yes	36.973283	-88.599930	Blizzard Ponds Drainage Canal	Delete
4	No	36.975982	-88.599907	Blizzard Ponds Drainage Canal	Delete
5	Yes	36.979869	-88.599827	Island Creek	Delete
6	Yes	36.982510	-88.598925	Island Creek	Delete
7	Yes	36.985039	-88.598647	Island Creek	Delete
8	Yes	36.993215	-88.598302	Island Creek	Delete
9	Yes	37.004975	-88.598469	Island Creek	Delete
10	No	37.006440	-88.598243	Island Creek	Delete

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:	Discharge Point(s):(*)
Date	

	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?: (*)	No
If Yes, describe scope of activity: (✓)	describe scope of activity
Is a Clean Water Act 404 permit required?:(*)	No

Is a Clean Water Act 401 Water Quality Certification required?:(*)	No

SECTION VII -- NOI PREPARER INFORMATION

First Name:(*)	M.I.:	Last Name:(*)	Company Name:(*)
First Name	MI	Last Name	Company Name

Mailing Address:(*)	City:(*)	State:(*)	Zip:(*)
Mailing Address	City		Zip

eMail Address:(*)	Business Phone:(*)	Alternate Phone:
eMail Address	Phone	Phone

SECTION VIII -- ATTACHMENTS

Facility Location Map:(*)	Upload file
Supplemental Information:	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:(*)	Title:(*)
Signature	Title

First Name:(*)	M.I.:	Last Name:(*)
First Name	MI	Last Name

eMail Address:(*)	Business Phone:(*)	Alternate Phone:	Signature Date:(*)
eMail Address	Phone	Phone	Date

Click to Save Values for Future Retrieval | Click to Submit to DEP

Kentucky Transportation Cabinet

Highway District 1

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-1954 in McCracken County

Project: CID 18-4001

Revised 3/4/2016

Project information

Note – (1) = Design (2) = Construction (3) = Contractor

1. Owner – Kentucky Transportation Cabinet, District __ (1)
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-1954
6. Latitude/Longitude (project mid-point): 36° 59’ 11.66”, -88° 35’ 55.00”
7. County (project mid-point): McCracken
8. Project start date (date work will begin): (2)
9. Projected completion date: (2)

KYTC BMP Plan for Project CID 18-4001

A. Site description:

1. Nature of Construction Activity (from letting project description): Perform Low Cost Safety Improvements on KY-1954

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): 11.42

5. Estimate of area to be disturbed (acres): 5.47

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: Blizzard Ponds Drainage Canal and Island 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)

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. <u>All DDA’s will have adequate BMP’s in place before being disturbed.</u>

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.
- 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
- 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:**

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 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.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contract 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. *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.*

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 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:

_____ 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.

KYTC BMP Plan for Project CID 18-4001

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.)

KYTC BMP Plan for Project CID 18-4001

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[2] signature

(3) Signed _____title_____, _____
Typed or printed name[1] signature

1. Contractors 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.

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[1] 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.

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

INDEX OF SHEETS

DESCRIPTION
LAYOUT SHEET
TYPICAL SECTIONS
PLAN AND PROFILE SHEETS
RIGHT OF WAY SUMMARY SHEETS
RIGHT OF WAY STRIP MAP SHEETS
COORDINATE CONTROL SHEETS

SHEETS NOT INCLUDED IN TOTAL SHEETS

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

PLANS OF
PROPOSED PROJECT

MCCRACKEN COUNTY
HUSBAND ROAD
KY 1954

THE CONTROL OF ACCESS ON THIS PROJECT SHALL BE BY PERMIT

THIS PROJECT IS OFF THE NH SYSTEM

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-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

LAYOUT MAP
NOT TO SCALE

CONST.		R/W	
LENGTH	16,299.36 LIN. FT. 3.09 MILES	LENGTH	1,030 LIN. FT. 0.195 MILES
ADDED / DEDUCTED	FOR EQUALITIES _____ LIN. FT.	ADDED / DEDUCTED	FOR EQUALITIES _____ LIN. FT.
	NOT INCLUDED		NOT INCLUDED
RAILROAD CROSSINGS NO.	_____ LIN. FT.	RAILROAD CROSSINGS NO.	_____ LIN. FT.
BRIDGES	_____ LIN. FT.	BRIDGES	_____ LIN. FT.

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY OF

MCCRACKEN

ITEM NO. 1-9002
PROJECT NUMBER: HSIP 6000 (028) FD52 073 1954 000-004
LETTING DATE: _____

Summary of Quantities

McCracken County
KY 1954 - Husband Road

Content: **Summary of Quantities**

Item No. **1-9002**

Item	Description	Unit	Qty	Comments
00001	DGA BASE	TON	1490	
00003	CRUSHED STONE BASE	TON	1103	
00020	TRAFFIC BOUND BASE	TON	13	
00100	ASPHALT SEAL AGGREGATE	TON	340	
00103	ASPHALT SEAL COAT	TON	45.8	
00212	CL2 ASPH BASE 1.00D PG64-22	TON	2004	
00301	CL2 ASPH SURF 0.38D PG64-22	TON	583	
00440	ENTRANCE PIPE - 15 IN	LF	24	
00441	ENTRANCE PIPE - 18 IN	LF	49	
00462	CULVERT PIPE - 18 IN	LF	217	
00464	CULVERT PIPE - 24 IN	LF	229	
00466	CULVERT PIPE - 30 IN	LF	71	
00468	CULVERT PIPE - 36 IN	LF	23	
00472	CULVERT PIPE - 60 IN	LF	126	
01310	REMOVE PIPE	LF	248	
24575ES610	HEADWALL (SLOPED & MITERED CONCRETE FOR 18IN PIPE)	EACH	4	
24575ES610	HEADWALL (SLOPED & MITERED CONCRETE FOR 24IN PIPE)	EACH	8	
01393	METAL END SECTION TY3 - 24 IN	EACH	2	
24575ES610	HEADWALL (SLOPED & MITERED CONCRETE FOR 30IN PIPE)	EACH	4	
24575ES610	HEADWALL (SLOPED & MITERED CONCRETE FOR 36IN PIPE)	EACH	2	
01729	SAFETY BOX INLET - 24 IN DBL SDB-5	EACH	1	
01987	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	EACH	42	
02230	EMBANKMENT IN PLACE	CUYD	12251	
02233	SPECIAL EMBANKMENT	CUYD	20373	FOR EMBANKMENT AT LEVEE = SPCL. EMB (18791 CUYD) + SPCL. BENCH (1582 CUYD)
02351	GUARDRAIL - STEEL W BEAM - S FACE	LF	1712.5	
02355	GUARDRAIL - STEEL W BEAM - S FACE A	LF	250	
02360	GUARDRAIL TERMINAL SECTION NO 1	EACH	4	
02367	GUARDRAIL END TREATMENT TY 1	EACH	2	
02373	GUARDRAIL END TREATMENT TYPE 3	EACH	1	
02381	REMOVE GUARDRAIL	LF	3125	
02391	GUARDRAIL END TREATMENT TY 4A	EACH	9	
02460	REMOVE TREES OR STUMPS	EACH	16	
02575	DITCHING/SHOULDERING	LF	7725	*15% Ditching and Shouldering of Total Project (LT & RT) to be used at the discretion of the Engineer. - See Ditching and Shouldering Summary
02677	ASPHALT PAVE MILLING & TEXTURING	TON	207	
06406	SBM ALUM SHEET SIGNS .080 IN	SQFT	166	
06407	SBM ALUM SHEET SIGNS .125 IN	SQFT	44	
06410	STEEL POST TYPE 1	LF	429	
06510	PAVE STRIPING-TEMP PAINT-4 IN	LF	4980	
06514	PAVE STRIPING -PERM PAINT - 4IN	LF	36710	
08100	CONCRETE-CLASS A	CUYD	42.2	
08806	GUARDRAIL - BRIDGE CASE I-A	LF	125	
08810	PRECAST CONC BRIDGE RAIL BLOCK	EACH	10	
20458ES403	CENTERLINE RUMBLE STRIPS	LF	16065	
21373ND	REMOVE SIGN	EACH	29	
22400NN	REMOVE AND RELOCATE SIGN ASSEMBLY	EACH	7	
24631EC	BARCODE SIGN INVENTORY	EACH	48	
	41" HOBAS PIPE	LF	250	
	48" HOBAS PIPE	LF	250	
	51" HOBAS PIPE	LF	125	
	LEVEE PIPES HEADWALL	EACH	1	
02599	FABRIC-GEOTEXTILE TYPE IV	SQYD	3196	
22861EN	HIGH STRENGTH GEOTEXTILE FABRIC TY V	SQYD	3430	
02159	TEMP DITCH	LF	8150	
02160	CLEAN TEMP DITCH	LF	4075	
02242	WATER	MGAL	600	
02483	CHANNEL LINING CLASS II	TON	200	
02429	RIGHT-OF-WAY MONUMENT TYPE 1	EACH	6	
02562	TEMPORARY SIGNS	SQFT	350.2	
02569	DEMOBILIZATION	LS	1	
02650	MAINTAIN & CONTROL TRAFFIC	LS	1	
02676	MOBILIZATION FOR MILL & TEXT	LS	1	
02701	TEMP SILT FENCE	LF	8150	
02703	SILT TRAP TYPE A	EACH	210	
02706	CLEAN SILT TRAP TYPE A	EACH	210	
02726	STAKING	LS	1	
05950	EROSION CONTROL BLANKET	SQYD	7500	
05952	TEMP MULCH	SQYD	16200	
05953	TEMP SEEDING AND PROTECTION	SQYD	12100	
05963	INITIAL FERTILIZER	TON	2	
05964	20-10-10 FERTILIZER	TON	1	
05985	SEEDING AND PROTECTION	SQYD	22000	
05992	AGRICULTURAL LIMESTONE	TON	66	
10020NS	FUEL ADJUSTMENT	DOLL	5,347.00	

Ditching and Shouldering Summary

McCracken County - KY 1954 (Husband Road)

AEI

Content: **Ditching & Shouldering**

Item No. **1-9002**

Bid Item 02575

Description	Begin Mile Point	End Mile Point	Begin Station	End Station	Side LT/RT	Ditching/Shouldering LF	Comment On Existing Conditions
Ditch & Shouldering	0.79	0.81	141+50.00	143+00.00	Lt	150	Ditching around proposed GR End Treatment
Ditch & Shouldering	0.79	0.81	141+50.00	143+00.00	Rt	150	Ditching around proposed GR End Treatment
Ditch & Shouldering	0.93	0.93	149+09.00	149+09.00	Lt/Rt	20	Inlet & Outlet Ditching around proposed Hdwl
Ditch & Shouldering	0.98	0.98	151+80.00	151+80.00	Rt	10	Inlet Ditching around proposed Hdwl
Ditch & Shouldering	1.06	1.06	155+77.00	155+77.00	Rt	10	Inlet Ditching around proposed Hdwl
Ditch & Shouldering	1.07	1.07	156+48.00	156+48.00	Rt	10	Inlet Ditching around proposed Hdwl
Ditch & Shouldering	1.35	1.38	171+50.00	173+00.00	Rt	150	Ditching around proposed GR End Treatment
Ditch & Shouldering	1.45	1.48	176+40.00	177+90.00	Rt	150	Ditching around proposed GR End Treatment
Ditch & Shouldering	1.45	1.48	176+75.00	178+25.00	Lt	150	Ditching around proposed GR End Treatment
Ditch & Shouldering	1.56	1.56	182+54.00	182+54.00	Lt/Rt	20	Inlet & Outlet Ditching around proposed Hdwl
Ditch & Shouldering	1.57	1.57	182+92.00	182+92.00	Lt/Rt	20	Inlet & Outlet Ditching around proposed Hdwl
Ditch & Shouldering	1.95	1.97	202+70.00	204+20.00	Rt	150	Ditching around proposed GR End Treatment
Ditch & Shouldering	1.95	1.97	202+70.00	204+20.00	Lt	150	Ditching around proposed GR End Treatment
Ditch & Shouldering	1.99	2.02	204+90.00	206+40.00	Lt	150	Ditching around proposed GR End Treatment
Ditch & Shouldering	1.99	2.02	204+90.00	206+40.00	Rt	150	Ditching around proposed GR End Treatment
Ditch & Shouldering	2.02	2.18	206+40.00	215+00.00	Rt	860	Rework Ditch and shoulder, also rework at the end of pipes.
Ditch & Shouldering	2.02	2.18	206+40.00	215+00.00	Lt	860	Rework Ditch and shoulder, also rework at the end of pipes.
Ditch & Shouldering	2.07	2.07	209+28.00	209+28.00	Lt	10	Inlet Ditching around proposed Hdwl
Ditch & Shouldering	2.14	2.14	213+20.00	213+20.00	Lt/Rt	20	Inlet & Outlet Ditching around proposed Hdwl
Ditch & Shouldering	2.27	2.27	219+92.00	219+92.00	Lt/Rt	20	Inlet & Outlet Ditching around proposed Hdwl
Ditch & Shouldering	2.38	2.38	225+87.00	225+87.00	Lt/Rt	20	Inlet & Outlet Ditching around proposed Hdwl
Ditch & Shouldering	2.64	2.64	239+36.00	239+36.00	Lt/Rt	20	Inlet & Outlet Ditching around proposed Hdwl
Ditch & Shouldering	0.00	2.82	100+00.00	249+15.00	Lt	2237	15% Ditching & Shouldering of Total Project (Lt) to be used at the discretion of the Engineer.
Ditch & Shouldering	0.00	2.82	100+00.00	249+15.00	Rt	2237	15% Ditching & Shouldering of Total Project (Rt) to be used at the discretion of the Engineer.
				TOTAL		7725	

Drainage Structure Summary

McCracken County - KY 1954 (Husband Road)

Content: **Drainage Structures**

Item No. **1-9002**

Description	Mile Point	Pipe Station	Bid Item	00440	00441	00462	00464	00466	00468				00472	01310	24575ES610	01393	24575ES610	24575ES610	24575ES610	01729	08100	
				ENT. PIPE - 15IN	ENT. PIPE - 18IN	CULVERT PIPE - 18IN	CULVERT PIPE - 24IN	CULVERT PIPE - 30IN	CULVERT PIPE - 36IN	41" Hobas Pipe	48" Hobas Pipe	51" Hobas Pipe	CULVERT PIPE - 60IN	REMOVE PIPE	HEADWALL (SLOPED & MITERED CONCRETE FOR 18IN PIPE)	METAL END SECTION TY 3 - 24IN	HEADWALL (SLOPED & MITERED CONCRETE FOR 24IN PIPE)	HEADWALL (SLOPED & MITERED CONCRETE FOR 30IN PIPE)	HEADWALL (SLOPED & MITERED CONCRETE FOR 36IN PIPE)	SAFETY BOX INLET- 24 IN DBL SDB-5	CONCRETE-CLASS A	LEVEE PIPES - HDWL
				LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	EACH	EACH		EACH	EACH	EACH	CUYD	EACH
Headwall	0.93	149+09.00						16										2				
Extend	0.98	151+80.00						11										1			2.25	
Extend	1.06	155+77.00							11										1		3.06	
Extend	1.07	156+48.00							12										1		3.06	
Replace	1.56	182+54.00					37										1			1		
Replace	1.57	182+92.00					40										2					
Replace	2.07	209+28.00						44										1				
Entrance	2.10	211+08.00			24																	
Entrance	2.12	211+96.00			25																	
Replace	2.14	213+19.98				62									2							
Entrance	2.16	214+27.00	24																			
Headwall	2.27	219+92.00														2						
Headwall	2.38	225+87.00					10										2					
Replace	2.65	239+86.00					37										2					
Extend	2.86	250+95.00											40								11.28	
Extend	2.86	251+05.00											40								11.28	
Extend	2.86	251+16.00											46								11.28	
New	2.95	255+92.86								125												1
New	2.95	256+00.23								125												
New	2.96	256+09.14										125										
New	2.96	256+18.23									125											
New	2.96	256+26.93									125											
New	2.97	256+65.00					105										1					
Remove	2.97	257+07.00												62								
Remove	2.98	257+17.00												62								
Remove	2.98	257+25.00												62								
Remove	2.98	257+33.00												62								
New	Clark Line Rd	48+70.00				155									2							
TOTALS				**24**	**49**	**217**	**229**	**71**	**23**	**250**	**250**	**125**	**126**	**248**	**4**	**2**	**8**	**4**	**2**	**1**	**42.2**	**1**

Guardrail Summary

McCracken County - KY 1954 (Husband Road)

Content: **Guardrail**

Item No. **1-9002**

Description	Begin	End	Begin	End	Offset	Bid Item 01987 DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	02381 REMOVE GUARDRAIL	02351 GUARDRAIL-STEEL W BEAM-S FACE	02355 GUARDRAIL-STEEL W BEAM-S FACE A	02360 GUARDRAIL TERMINAL SECTION NO 1	02367 GUARDRAIL END TREATMENT TYPE 1	02391 GUARDRAIL END TREATMENT TYPE 4A	02373 GUARDRAIL END TREATMENT TYPE 3	08806 GUARDRAIL-BRIDGE CASE I-A	Comment On Existing Conditions
	Mile Point	Mile Point	Station	Station		Each	LF	LF	LF	Each	Each	Each	Each	LF	
Guardrail	0.79	0.79	141+49.00	141+74.00	Lt	1			25						Single Faced A at N bridge end
Guardrail	0.79	0.79	141+74.00	141+85.00	Lt			12.5		1					Term. Sect. No. 1 wrapped around entrance
GR Removal	0.79	0.79	141+49.00	141+61.00	Lt		12.5								
Guardrail	0.79	0.79	141+53.00	141+78.00	Rt	1			25						Single Faced A at N bridge end
Guardrail	0.79	0.79	141+78.00	141+87.00	Rt			12.5		1					Term. Sect. No. 1 wrapped around entrance
GR Removal	0.79	0.79	141+54.00	141+66.00	Rt		12.5								
GR Removal	1.37	1.46	172+29.00	176+98.00	Lt		475								
GR Removal	1.37	1.46	172+31.00	177+12.00	Rt		487.5								
Guardrail	1.37	1.40	172+37.00	174+15.00	Lt	2		187.5		1					Term. Sect. No. 1 wrapped around entrance
Guardrail	1.37	1.41	172+52.00	174+27.00	Rt	2		137.5				1			Type 4A End Treatment
Guardrail	1.40	1.41	174+15.00	174+40.00	Lt	1			25						
Guardrail	1.41	1.41	174+27.00	174+52.00	Rt	1			25						
Guardrail	1.41	1.42	174+40.00	174+77.00	Lt	1								37.5	Single Faced BR
Guardrail	1.41	1.42	174+52.00	174+89.00	Rt	1								37.5	Single Faced BR
Guardrail	1.42	1.42	174+77.00	175+02.00	Lt	1			25						
Guardrail	1.42	1.42	174+89.00	175+14.00	Rt	1			25						
Guardrail	1.42	1.45	175+02.00	176+77.00	Lt	2		137.5				1			Type 4A End Treatment
Guardrail	1.42	1.46	175+14.00	176+89.00	Rt	2		137.5				1			Type 4A End Treatment
Guardrail	1.96	1.97	203+68.00	204+18.00	Lt	1		12.5			1				Type 1 End Treatment
Guardrail	1.96	1.97	203+68.00	204+18.00	Rt	1		12.5			1				Type 1 End Treatment
GR Removal	1.97	2.00	203+76.00	205+39.00	Rt		162.5								
GR Removal	1.97	2.00	203+77.00	205+39.00	Lt		162.5								
Guardrail	1.97	1.98	204+18.00	204+43.00	Lt	1			25						
Guardrail	1.97	1.98	204+18.00	204+43.00	Rt	1			25						
Guardrail	1.98	1.98	204+43.00	204+68.00	Lt	1								25	Single Faced BR
Guardrail	1.98	1.98	204+43.00	204+68.00	Rt	1								25	Single Faced BR
Guardrail	1.98	1.99	204+68.00	204+93.00	Lt	1			25						
Guardrail	1.98	1.99	204+68.00	204+93.00	Rt	1			25						
Guardrail	1.99	2.00	204+93.00	205+43.00	Lt	1		12.5				1			Type 4A End Treatment
Guardrail	1.99	2.00	204+93.00	205+43.00	Rt	1		12.5				1			Type 4A End Treatment
GR Removal	2.84	2.88	250+06.00	251+88.00	Lt		300								
GR Removal	2.85	2.88	250+22.00	252+24.00	Rt		225								
Guardrail	2.85	2.91	250+47.00	253+71.80	Rt	4		287.5				1	1		Clark Line curve realignment
GR Removal	2.88	2.91	252+30.00	253+44.00	Lt		125								
GR Removal	2.89	2.97	252+59.00	257+00.00	Rt		500								
GR Removal	2.92	3.03	253+96.00	259+80.00	Lt		662.5								
Guardrail	2.94	3.02	255+00.00	259+50.00	Lt	7		375.0				2			Clark Line curve realignment
Guardrail	2.95	3.03	255+70.00	259+80.00	Rt	5		375.0		1		1			Clark Line curve realignment
TOTALS						**42**	**3125**	**1712.5**	**250**	**4**	**2**	**9**	**1**	**125**	

Pavement Summary

McCracken County - KY 1954 (Husband Road)

Content: **Pavement**

Item No. **1-9002**

Description	Begin Mile Point	End Mile Point	Begin Station	End Station	Bid Item 00001 DGA BASE TONS	00003 CSB TONS	00020 TRAFFIC BOUND BASE TONS	00100 ASPHALT SEAL AGGREGATE TONS	00103 ASPHALT SEAL COAT TONS	00212 CL2 ASPH BASE 1.00D PG64-22 TONS	00301 CL2 ASPH SURF 0.38D PG64-22 TONS	02230 EMB. IN PLACE CUYD	02233 SPECIAL EMB. CUYD	02677 ASPHALT PAVE MILLING & TEXTURING TONS	02600 FABRIC-GEOTEXTILE TYPE IV SQYD	22861EN HIGH STRENGTH GEOTEXTILE FABRIC TY V SQYD	Comment On Existing Conditions
KY 1954 Shoulder	0.009	0.772	100+50.00	140+77.43	309			67	8.05								LT & RT shoulder
DGA for Guardrail	0.786	0.793	141+49.00	141+85.00	3			0.55	0.07								LT Guardrail
KY 1954 Shoulder	0.786	1.411	141+52.66	174+47.53	253			55	6.59								LT & RT shoulder
DGA for Guardrail	0.787	0.793	141+53.00	141+87.00	3			0.55	0.07								RT Guardrail
Entrance Pavement RT	0.79	0.79	141+92.00	141+92.00	1		3										Existing gravel entrance
DGA for Guardrail	1.371	1.454	172+37.00	176+77.00	32			5.9	0.75								LT Guardrail
DGA for Guardrail	1.373	1.456	172+52.00	176+89.00	28			5.2	0.65								RT Guardrail
KY 1954 Shoulder	1.417	1.978	174+80.60	204+46.14	224			49	5.86								
Replace Pipe	1.56	1.56	182+54.00	182+54.00						4	17			16.0			Construct a Double Safety Type Box Inlet at Inlet, Sloped & Mitered at Outlet
Replace Pipe	1.57	1.57	182+92.00	182+92.00						4	17			16.0			Pipe End is Broken
DGA for Guardrail	1.964	1.997	203+68.00	205+43.00	15			2.8	0.35								LT Guardrail
DGA for Guardrail	1.964	1.997	203+68.00	205+43.00	15			2.8	0.35								RT Guardrail
KY 1954 Shoulder	1.982	2.027	204+65.11	207+00.00	18			4	5.86								
Superelevation Improvements	2.03	2.06	207+00.00	208+70.93	16			4	0.42		29			5.2			Krebs Station Curve
Superelevation Improvements	2.06	2.09	208+70.93	210+15.47	15			3	0.39	77	41			17.0			Krebs Station Curve
Replace Pipe	2.07	2.07	209+28.00	209+28.00						4	17			16.0			Part of Krebs Curve project
Superelevation Improvements	2.09	2.09	210+15.47	210+52.98	4			1	0.10	20	23			6.0			Krebs Station Curve
Superelevation Improvements	2.09	2.11	210+52.98	211+53.98	10			2	0.27	56	34			19.0			Krebs Station Curve
Entrance Pavement LT	2.10	2.10	211+08.00	211+08.00	2					3	1						Existing asphalt entrance
Superelevation Improvements	2.11	2.13	211+53.98	212+32.25	8			2	0.21	50	30			15.0			Krebs Station Curve
Entrance Pavement RT	2.12	2.12	211+96.00	211+96.00	3		5										Existing gravel entrance
Superelevation Improvements	2.13	2.15	212+32.25	213+70.04	11			2	0.29	99	40			26.0			Krebs Station Curve
Replace Pipe	2.14	2.14	213+19.98	213+19.98						4	17			16.0			Part of Krebs Curve project
Superelevation Improvements	2.15	2.16	213+70.04	213+81.12	1			0.26	0.03	5	19			2.0			Krebs Station Curve
Superelevation Improvements	2.16	2.17	213+81.12	214+81.11	10			2	0.27	25	34			17.0			Krebs Station Curve
Entrance Pavement RT	2.16	2.16	214+27.00	214+27.00	2		5										Existing gravel entrance
Superelevation Improvements	2.17	2.18	214+81.11	215+00.00	2			1	0.05		3			5.2			Krebs Station Curve
KY 1954 Shoulder	2.178	2.825	215+00.00	249+15.00	263			57	6.85								
Replace Pipe	2.65	2.65	239+86.00	239+86.00						4	17			16.0			Pipe End is Bent; Replace pipe with headwalls on both ends
KY 1954 Realignment	2.825	3.043	249+15.00	260+65.00		1103		45	5.45	1378	209	9439	20373	10.5	3196	3430	KY 1954 (Husband Rd) @ Clark Line Road
DGA for Guardrail	2.85	2.911	250+47.00	253+72.00	22			4	0.51								RT Guardrail
DGA for Guardrail	2.936	3.021	255+00.00	259+50.00	29			5.3	0.39								LT Guardrail
DGA for Guardrail	2.949	3.027	255+70.00	259+80.00	29			5.3	0.39								RT Guardrail
Jones Road Approach			50+00.00	51+38.24	13			3	0.34								
KY 999 Approach			49+00.00	50+29.19	13			3	0.33								
Clark Line Rd Realignment			47+00.00	49+39.00	136			8	0.92	271	36	2812		4.8			Clark Line Road
TOTALS					**1490**	**1103**	**13**	**340**	**45.80**	**2004**	**583**	**12251**	**20373**	**207**	**3196**	**3430**	

Sign Summary

McCracken County - KY 1954 (Husband Road)

Content: **Signs**

Item No. **10-9008**

Roadway	Side	Station	Remarks	Bid Item: 21373ND Remove Sign (EACH)	22400NN Remove and Relocate Sign Assembly (EACH)	Number of Proposed Signs	MUTCD Code	Sign Dimensions (in x in)	SHEETING: Background Color	SHEETING: Text/Symbol Color	SHEETING: Sheeting Type	24631EC Barcode Sign Inventory (EACH)	06406 SBM Alum Sheet Signs 0.080 IN (SQFT)	06407 SBM Alum Sheet Signs 0.125 IN (SQFT)	06410 Estimated Sign Post Length (LF)
KY 1954	LT	141+71.20	Wt Limit 12 tons		1		R12-1	24 x 30	White	Black	III or IV				12
KY 1954	RT	148+03.00	Type 3 Object Marker		1		OM3-R	12 x 36	Yellow	Black	III or IV				12
KY 1954	LT	149+14.00	Type 3 Object Marker		1		OM3-R	12 x 36	Yellow	Black	III or IV				12
KY 1954	RT	151+73.00	Type 3 Object Marker		1		OM3-R	12 x 36	Yellow	Black	III or IV				12
KY 1954	LT	151+86.00	Type 3 Object Marker		1		OM3-R	12 x 36	Yellow	Black	III or IV				12
KY 1954	LT	182+37.00	STOP		1		R1-1	30 x 30	Red	White	IX				13
KY 1954	LT	182+37.00	GEIBE Rd				D3-1	48 x 12	Green	White	III or IV				
KY 1954	RT	203+74.00	Lt Reverse Turn advisory sign	1		1	W13-1P	18 x 18	Yellow	Black	IX	1	3		12
KY 1954	RT	203+74.00	ADVISORY SPEED sign, Remove 15 mph advisory, Determine speed via ball bank			1	W1-3	30 x 30	Yellow	Black	IX	1	7		
KY 1954	RT	205+60.00	MP 2 (FRONT & BACK)		1		D10-1	10 x 18	Green	White	III or IV				12
KY 1954	RT	208+60.00	CHEVRON ALIGNMENT (FRONT & BACK)			2	W1-8	18 x 24	Yellow	Black	IX	2	6		12
KY 1954	RT	208+93.00	CHEVRON ALIGNMENT (FRONT & BACK)			2	W1-8	18 x 24	Yellow	Black	IX	2	6		12
KY 1954	RT	209+22.00	ONE-DIRECTION LARGE ARROW			1	W1-6	24 x 48	Yellow	Black	IX	1		8	12
KY 1954	RT	209+38.00	STOP on Jones Rd	1		1	R1-1	30 x 30	Red	White	IX	1	7		13
KY 1954	RT	209+38.00	JONES RD			1	D3-1	48 x 12	Green	White	III or IV	1		4	
KY 1954	RT	209+41.00	TWO DIRECTIONAL LARGE ARROW	1		1	W1-7	24 x 48	Yellow	Black	IX	1		8	12
KY 1954	RT	209+75.00	CHEVRON ALIGNMENT (FRONT & BACK)			2	W1-8	18 x 24	Yellow	Black	IX	2	6		12
KY 1954	RT	210+13.00	CHEVRON ALIGNMENT			1	W1-8	18 x 24	Yellow	Black	IX	1	3		12
KY 1954	RT	210+28.00	COMBINATION HORIZONTAL ALIGNMENT/ADVISORY SPEED, Determine speed via ball bank			1	W1-1a	36 x 36	Yellow	Black	IX	1	9		13
KY 1954	LT	210+37.00	SOUTH	1		1	M3-3	24 x 12	White	Black	III or IV	1	2		12
KY 1955	LT	210+37.00	KY 1954			1	M1-5	30 x 24	White	Black	III or IV	1	5		
KY 1954	LT	211+95.00	COMBINATION HORIZONTAL ALIGNMENT/ADVISORY SPEED, Determine speed via ball bank			1	W1-1a	36 x 36	Yellow	Black	IX	1	9		13
KY 1954	RT	212+28.00	KY 1954	1		1	M1-5	30 x 24	White	Black	III or IV	1	5		13
KY 1954	RT	212+28.00	RT DIRECTIONAL ARROW			1	M6-1	21 x 15	White	Black	III or IV	1	3		
KY 1954	RT	212+28.00	KY 999	1		1	M1-5	24 x 24	White	Black	III or IV	1	4		12
KY 1954	RT	212+28.00	STR. DIRECTIONAL ARROW			1	M6-3	21 x 15	White	Black	III or IV	1	3		
KY 1954	LT	212+30.00	CHEVRON ALIGNMENT			1	W1-8	18 x 24	Yellow	Black	IX	1	3		12
KY 1954	LT	212+73.00	CHEVRON ALIGNMENT (FRONT & BACK)			2	W1-8	18 x 24	Yellow	Black	IX	2	6		12
KY 1954	RT	213+00.00	TWO DIRECTIONAL LARGE ARROW	1		1	W1-7	24 x 48	Yellow	Black	IX	1		8	12
KY 1954	RT	213+01.00	KY 1954	1		1	M1-5	30 x 24	White	Black	III or IV	1	5		13
KY 1954	RT	213+01.00	LT & STR DIRECTIONAL ARROW			1	M6-6	21 x 15	White	Black	III or IV	1	3		
KY 1954	RT	213+01.00	STOP SIGN	1		1	R1-1	30 x 30	Red	White	IX	1	7		13
KY 1954	LT	213+26.00	ONE-DIRECTION LARGE ARROW			1	W1-6	48 x 24	White	Black	IX	1		8	14
KY 1954	LT	213+29.00	KY 999	1		1	M1-5	24 x 24	White	Black	III or IV	1	4		12
KY 1954	LT	213+29.00	Rt DIRECTION ARROW			1	M6-1	21 x 15	White	Black	III or IV	1	3		
KY 1954	LT	213+38.00	CHEVRON ALIGNMENT (FRONT & BACK)			2	W1-8	18 x 24	Yellow	Black	IX	2	6		12
KY 1954	LT	213+81.00	CHEVRON ALIGNMENT (FRONT & BACK)			2	W1-8	18 x 24	Yellow	Black	IX	2	6		12
KY 1954	RT	214+96.00	KY 1954	1		1	M1-5	30 x 24	White	Black	III or IV	1	5		13
KY 1954	RT	214+96.00	North			1	M3-1	24 x 12	White	Black	III or IV	1	2		

Bid Item				21373ND	22400NN							24631EC	06406	06407	06410
Roadway	Side	Station	Remarks	Remove Sign	Remove and Relocate Sign Assembly	Number of Proposed Signs	MUTCD Code	Sign Dimensions	SHEETING			Barcode Sign Inventory	SBM Alum Sheet Signs 0.080 IN	SBM Alum Sheet Signs 0.125 IN	Estimated Sign Post Length
									Background Color	Text/Symbol Color	Sheeting Type				
				EACH	EACH			in x in				EACH	SQFT	SQFT	LF
KY 1954	LT	218+24.00	Lt Reverse Turn advisory sign	1		1	W1-3	30 x 30	Yellow	Black	IX	1	7		13
KY 1954	LT	218+24.00	ADVISORY SPEED sign, Remove 15 mph advisory, Determine new speed via ball bank			1	W13-1P	18 x 18	Yellow	Black	IX	1	3		
KY 1954	RT	245+66.00	Lt Reverse Turn advisory sign	1											
KY 1954	RT	245+66.00	ADVISORY SPEED sign, Remove 15 mph advisory, Determine speed via ball bank												
KY 1954	RT	249+39.00	CHEVRON CURVE SIGN NB	1											
KY 1954	RT	250+30.05	Lt Turn advisory sign	1											
KY 1954	RT	250+30.05	ADVISORY SPEED sign, Determine speed via ball bank												
KY 1954	RT	250+35.00	CHEVRON CURVE SIGN NB & SB	1											
KY 1954	RT	251+28.00	CHEVRON CURVE SIGN NB & SB	1											
KY 1954	RT	252+28.00	CHEVRON CURVE SIGN SB	1											
KY 1954	LT	253+05.00	CHEVRON CURVE SIGN NB	1											
KY 1954	LT	254+00.00	CHEVRON CURVE SIGN NB & SB	1											
KY 1954	LT	254+09.00	CHEVRON CURVE SIGN SB	1											
KY 1954	LT	254+09.00	CHEVRON CURVE SIGN SB	1											
KY 1954	LT	254+09.00	STOP on Clarkline Rd	1		1	R1-1	30 x 30	Red	White	IX	1	7		13
KY 1954	LT	254+09.00	CLARKLINE RD sign			1	D3-1	12 x 48	Green	White	III or IV	1		4	
KY 1954	LT	254+09.00	HUSBAND RD sign			1	D3-1	12 x 48	Green	White	III or IV	1		4	
KY 1954	LT	254+09.00	Lt LARGE DIRECTIONAL ARROW	1											
KY 1954	LT	254+39.00	Rt LARGE DIRECTIONAL ARROW NB	1											
KY 1954	LT	256+11.00	CHEVRON SIGN SB	1											
KY 1954	LT	258+40.00	MP3 (FRONT & BACK)	1		2	D10-1	10 x 18	Green	White	III or IV	2	3		12
KY 1954	RT	258+64.00	JCT sign	1		1	M2-1	21 x 15	White	Black	III or IV	1	3		12
KY 1954	RT	258+64.00	KY 3075			1	M1-5	30 x 24	White	Black	III or IV	1	5		
KY 1954	LT	260+51.20	Lt Reverse Turn advisory sign	1											
KY 1954	LT	260+51.20	ADVISORY SPEED sign, Remove 10 mph advisory												
KY 1954	LT	260+98.00	Lt Turn advisory sign			1	W1-2a	30 x 30	Yellow	Black	IX	1	7		13
KY 1954	LT	260+98.00	ADVISORY SPEED sign, Determine speed via ball bank			1	W13-1P	18 x 18	Yellow	Black	IX	1	3		
			TOTALS	**29**	**7**							**48**	**166**	**44**	**429**

Superelevation Improvements

McCracken County - KY 1954 (Husband Road)

AEI

Item No.: 1-9007
Contents: Superelevation Improvements (Geometrics and X-Slopes) Krebs Station Curve
Date: 12/15/2017

Mile Point: 0.000 to 3.09
Classification: Rural Major Collector
Posted Speed: 55 mph
AADT: 5920 (2012)

Rte Assigned SL = 55 mph

Using e=8% Rmin=960'@55

11' Lanes

																		Bid Item:	00212	02677	00301
Begin MP	End MP	Begin Station	End Station	Mile Point	X-Sec Station	Curve #	Curve Direction	Radius (ft)	Curve or Tangent Length	Posted/ Advisory Speed	Horz. DS (mph)	Existing Cross Slope Left	Existing Cross Slope Right	Desired X-Slope (eMAX 8%)	Notes	X-sec Base (sf)	X-sec Milling (sf)	CL2 ASPH BASE 1.00D PG64-22	Asphalt Pave Milling & Texturing	CL2 Asph Surf 0.38D PG64-22
																		TON	TON	TON
2.03	2.06	207+00.00	208+70.93			tangent			170.93		55									29
2.06	2.09	208+70.93	210+15.47	2.07	209+43.20	1	LT	90	144.54	15	20	-14.24%	3.30%	4.0%		7.28	1.59	77	17	41
2.09	2.09	210+15.47	210+52.98			tangent			37.51		55					7.45	2.08	20	6	23
2.09	2.11	210+52.98	211+53.98	2.10	211+03.48		LT	2204	101.00	15	55	-3.81%	-4.00%		*	7.62	2.56	56	19	34
2.11	2.13	211+53.98	212+32.25			tangent			78.26		55					8.72	2.57	50	15	30
2.13	2.15	212+32.25	213+70.04	2.14	212+98.51	2	RT	90	137.79	15	20	1.56%	-10.91%	4.0%		9.81	2.58	99	26	40
2.15	2.16	213+70.04	213+81.12			tangent			11.08		55					6.64	2.47	5	2	19
2.16	2.17	213+81.12	214+81.11	2.16	214+31.12		RT	900	99.99	15	50	-1.46%	-7.83%			3.47	2.35	25	17	34
2.17	2.18	214+81.11	215+00.00			tangent			18.89		55									3
															*Transition section between Curves 1 &2.					
																	Totals	334	102	252

** Note Pavement Quantities included on Pavement Summary

Striping Summary

McCracken County - KY 1954 (Husband Road)

AEI

Content: **Striping**

Item No. **1-9002**

Description	Begin	End	Begin	End	Offset	Bid Item 06510 PAVE STRIPING-TEMP PAINT-4 IN	06514 PAVE STRIPING-PERM PAINT- 4IN	Comment On Existing Conditions	Misc. Comment
	Mile Point	Mile Point	Station	Station		LF	LF		
Edge Line	0.01	1.56	100+50.00	182+45.00	Lt		8195	Project beginning to Geibe Rd	White
Edge Line	0.01	2.07	100+50.00	209+20.00	Rt		10870	Project beginning to Jones Rd	White
Centerline	1.55	1.57	182+00.00	182+75.00		150	150	Resurfacing for pipe replacement 182+54	Yellow
Centerline	1.57	1.58	182+75.00	183+50.00		150	150	Resurfacing for pipe replacement 182+92	Yellow
Centerline	2.03	2.18	207+00.00	215+00.00		1600	1600	Superelevation correction at Kreb's Curve	Yellow
Centerline	2.64	2.66	239+30.00	340+30.00		200	200	Resurfacing for pipe replacement 239+86	Yellow
Centerline	2.82	3.04	249+15.00	260+65.00		2300	2300	Realignment of curve at Clark Line Rd	Yellow
Edge Line	1.57	1.93	182+90.00	202+10.00	Lt		1920	Geibe Rd to Dalton Ln	White
Edge Line	1.94	2.14	202+40.00	212+90.00	Lt		1050	Dalton Ln to KY 999	White
Edge Line	2.07	3.04	209+50.00	260+65.00	Rt		5115	Jones Rd to project end	White
Edge Line	2.15	2.55	213+35.00	234+50.00	Lt		2115	KY 999 to Gilbert Ln	White
Edge Line	2.55	2.90	234+80.00	253+35.00	Lt		1855	Gilbert Ln to Clark Line Rd	White
Edge Line	2.93	3.04	254+55.00	260+65.00	Lt		610	Clark Line Rd to project end	White
Centerline			47+00.00	49+90.00		580	580	Clark Line Rd centerline	Yellow
				TOTALS		**4980**	**36710**		

Tree Removal Summary

McCracken County - KY 1954 (Husband Road)

AEI

Content:	Tree Removal	Item No.	1-9002

Bid Item: 02460

Description	Begin	End	Begin	End	Offset	REMOVE TREES OR STUMPS	Comment On Existing Conditions	Misc. Comment
	Mile Point	Mile Point	Station	Station	RT/LT	EACH		
Tree	2.04	2.04	207+61.00	207+61.00	LT	1	Tree needs removed from R/W	Tree in Back of Ditch about 4'- 6' from pavement. Needs removed from R/W for shoulder & ditch and curve improvement.
Tree	2.07	2.12	209+45.00	212+09.00	RT	15	Tree needs removed from R/W	About 15 Small to Medium size trees needs from ditch bottom to top of back slope need removed for shoulder & ditch and curve improvement. Some are on back of ditch in front of yard.
				TOTALS		16		

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

INDEX OF SHEETS

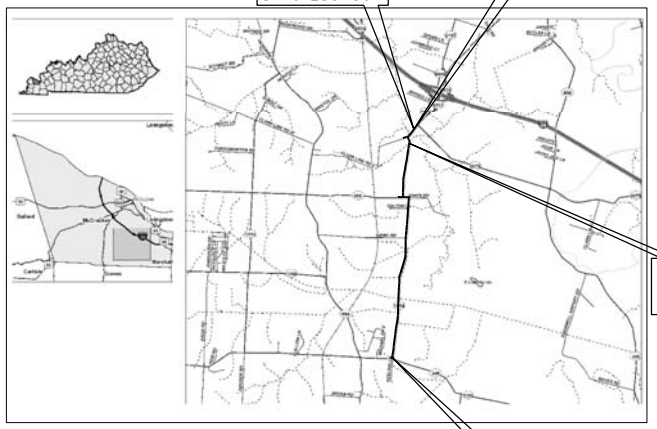
DESCRIPTION
LAYOUT SHEET
TYPICAL SECTIONS
PLAN AND PROFILE SHEETS
RIGHT OF WAY SUMMARY SHEETS
RIGHT OF WAY STRIP MAP SHEETS
COORDINATE CONTROL SHEETS

SHEETS NOT INCLUDED IN TOTAL SHEETS

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

PLANS OF
PROPOSED PROJECT

MCCRACKEN COUNTY
HUSBAND ROAD
KY 1954



THE CONTROL OF ACCESS ON THIS PROJECT SHALL BE BY PERMIT

THIS PROJECT IS OFF THE NH SYSTEM

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-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

LAYOUT MAP
NOT TO SCALE

CONST.		R/W	
LENGTH	16,299.36 LIN. FT. 3.09 MILES	LENGTH	1,030 LIN. FT. 0.195 MILES
ADDED / DEDUCTED	FOR EQUALITIES _____ LIN. FT.	ADDED / DEDUCTED	FOR EQUALITIES _____ LIN. FT.
	NOT INCLUDED		NOT INCLUDED
RAILROAD CROSSINGS NO.	_____ LIN. FT.	RAILROAD CROSSINGS NO.	_____ LIN. FT.
BRIDGES	_____ LIN. FT.	BRIDGES	_____ LIN. FT.

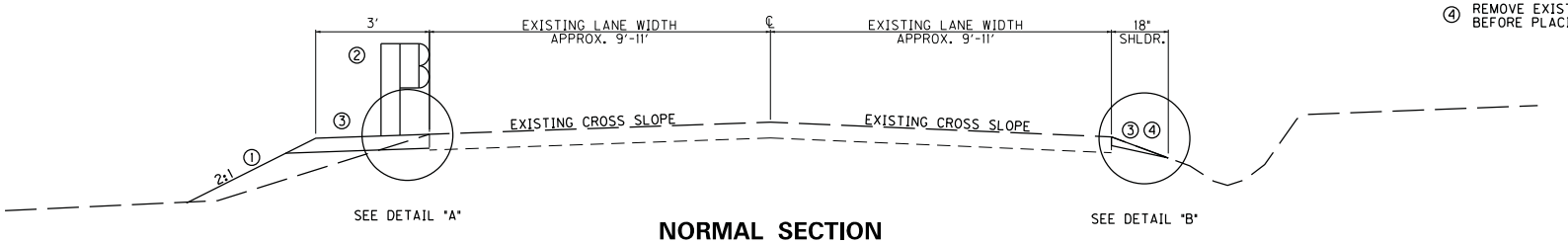
Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY OF

MCCRACKEN

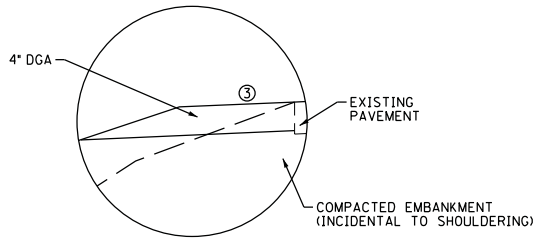
ITEM NO. 1-9002
PROJECT NUMBER: HSIP 6000 (028)
FD52 073 1954 000-004
LETTING DATE: _____

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

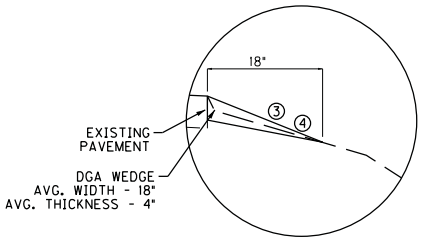
NOTES:
① SEE X-SECTIONS FOR SLOPES OUTSIDE OF SHOULDER.
② WIDEN SHOULDER 3' WHERE GUARDRAIL IS REQUIRED
③ DOUBLE ASPHALT SEAL COAT REQUIRED (SEE SPCL. NOTE)
④ REMOVE EXISTING SOD BEFORE PLACING DGA WEDGE



NORMAL SECTION
KY 348 TO KREB'S CURVE
MP 0.00 TO 2.03
STA. 100+50 TO STA. 207+00
KREB'S CURVE TO CLARK LINE
MP 2.18 TO 2.82
STA. 215+00 TO STA. 249+15



DETAIL "A"

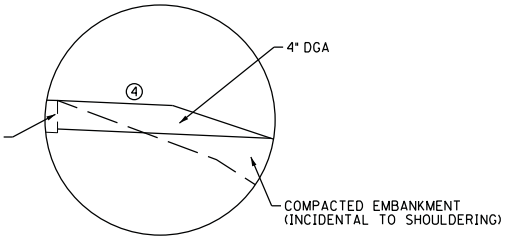


DETAIL "B"

N.T.S.

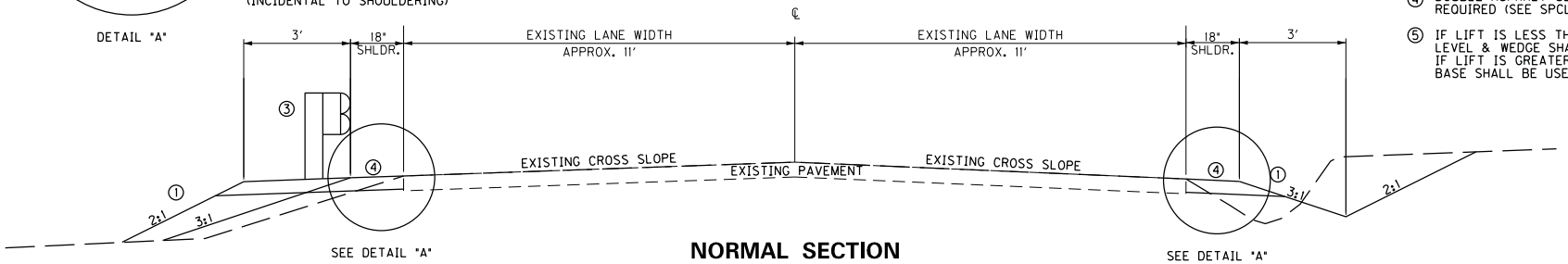
KY 1954
TYPICAL SECTIONS

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00



DETAIL "A"

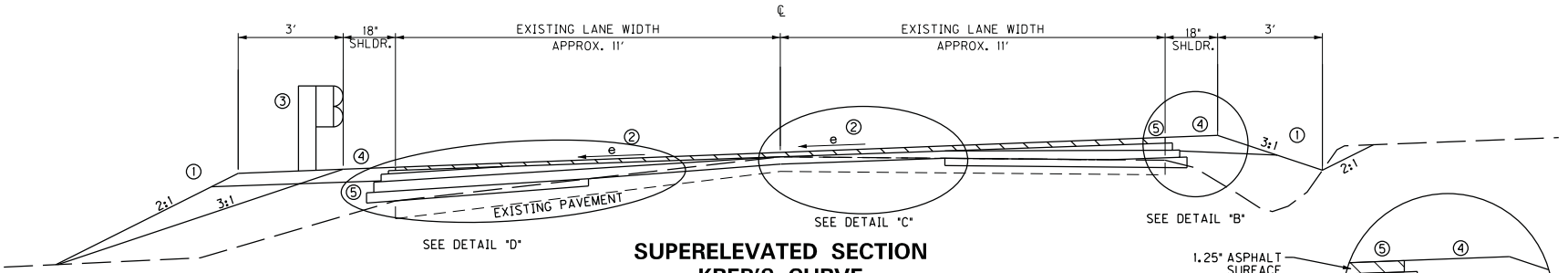
NOTES:
① SEE X-SECTIONS FOR SLOPES OUTSIDE OF SHOULDER.
② SEE PLANS FOR e RATE
③ WIDEN SHOULDER 3' WHERE GUARDRAIL IS REQUIRED
④ DOUBLE ASPHALT SEAL COAT REQUIRED (SEE SPCL. NOTE)
⑤ IF LIFT IS LESS THAN OR EQUAL TO 2", LEVEL & WEDGE SHALL BE USED. IF LIFT IS GREATER THAN 2", BASE SHALL BE USED.



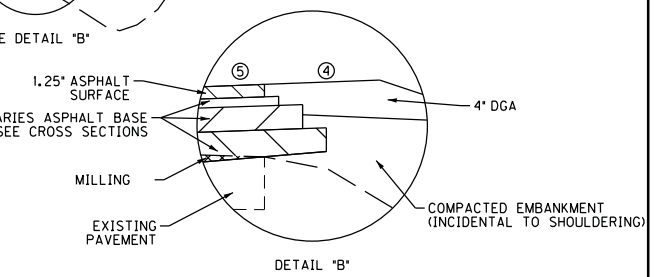
NORMAL SECTION
KREB'S CURVE
MP 2.03 TO MP 2.18
STA. 207+00 TO 215+00

PAVEMENT DESIGN

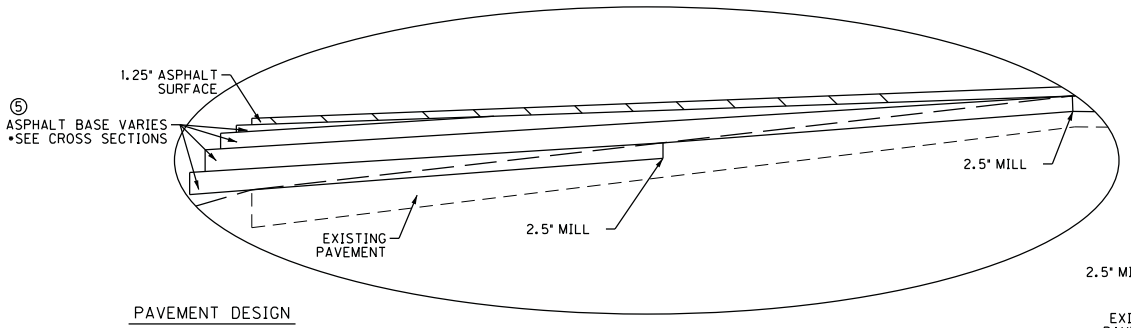
PAVED SHOULDER — 4.00" DENSE GRADED AGGREGATE



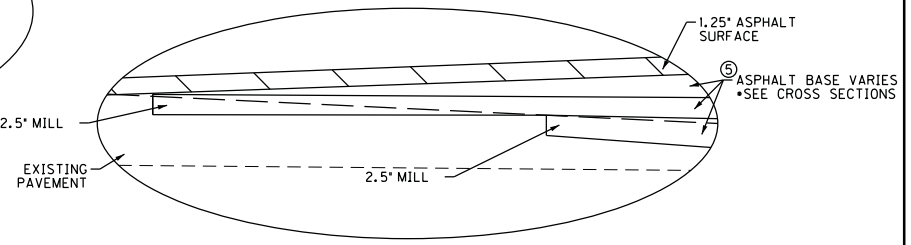
SUPERELEVATED SECTION
KREB'S CURVE
MP 2.03 TO MP 2.18
STA. 207+00 TO STA. 215+00



DETAIL "B"



DETAIL "D"



DETAIL "C"

PAVEMENT DESIGN

TRAFFIC LANES
- 1.25" CL2 AS 0.38D PG64-22
- 2.50" CL2 AB 1.00D PG64-22
- VARIES CL2 AB 1.00D PG64-22

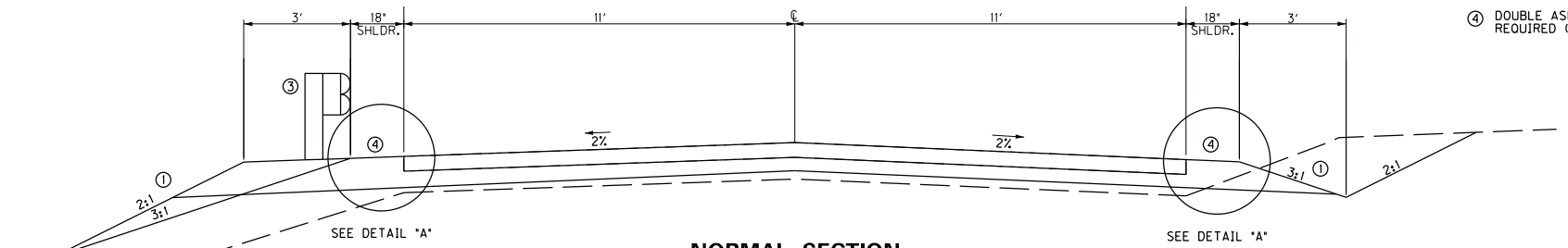
PAVED SHOULDER — 4.00" DENSE GRADED AGGREGATE

N.T.S.

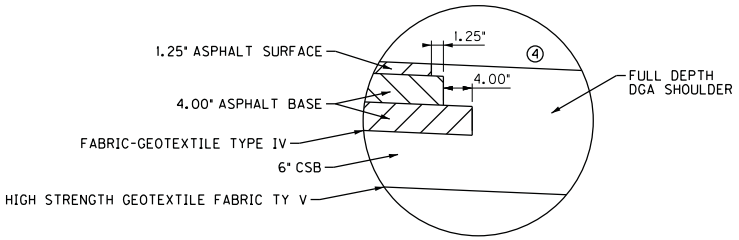
KY 1954
TYPICAL SECTIONS

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

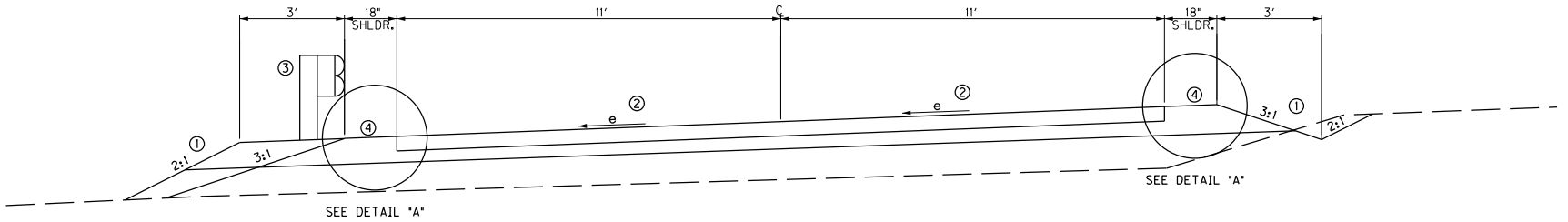
NOTES:
① SEE X-SECTIONS FOR SLOPES OUTSIDE OF SHOULDER.
② SEE PLANS FOR e RATE
③ WIDEN SHOULDER 3' WHERE GUARDRAIL IS REQUIRED
④ DOUBLE ASPHALT SEAL COAT REQUIRED (SEE SPCL. NOTE)



NORMAL SECTION
MP 2.82 TO MP 3.04
STA. 249+15 TO STA. 260+65



DETAIL "A"



SUPERELEVATED SECTION
MP 2.82 TO MP 3.04
STA. 249+15 TO STA. 260+65

PAVEMENT DESIGN

TRAFFIC LANES —
1.25" CL2 AS 0.38D PG64-22
4.00" CL2 AB 1.00D PG64-22
4.00" CL2 AB 1.00D PG64-22
6.00" CRUSHED STONE BASE (SEE DETAIL A)

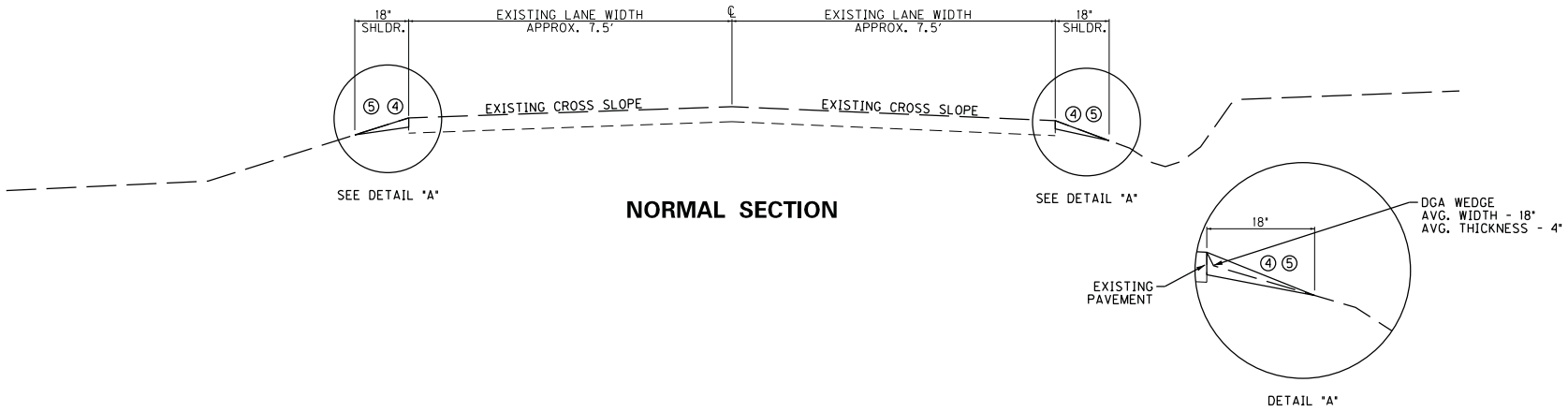
PAVED SHOULDER — 11.25" DENSE GRADED AGGREGATE

N.T.S.

KY 1954
TYPICAL SECTIONS

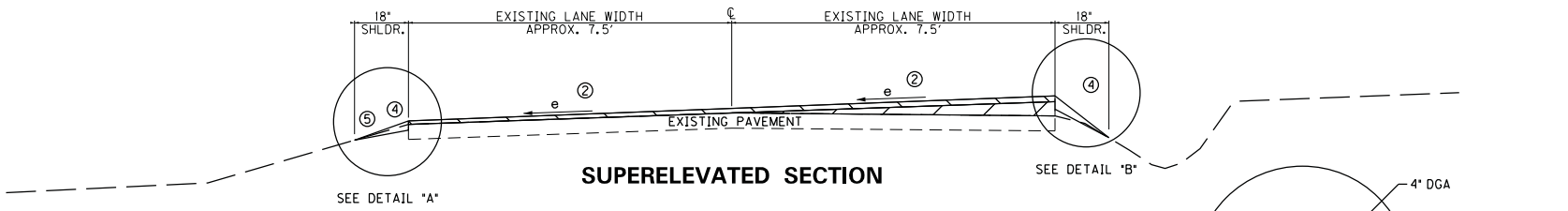
COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

NOTES:
1. SEE X-SECTIONS FOR SLOPES OUTSIDE OF SHOULDER.
2. SEE PLANS FOR e RATE
3. WIDEN SHOULDER 3' WHERE GUARDRAIL IS REQUIRED
4. DOUBLE ASPHALT SEAL COAT REQUIRED (SEE SPCL. NOTE)
5. REMOVE EXISTING SOD BEFORE PLACING DGA WEDGE

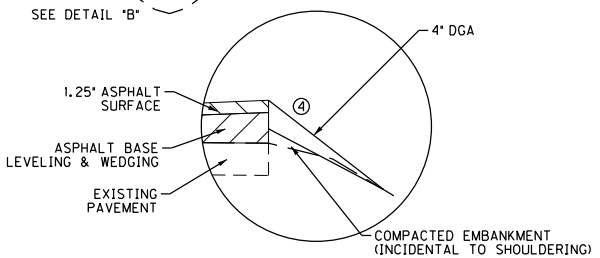


NORMAL SECTION

DETAIL "A"



SUPERELEVATED SECTION



DETAIL "B"

PAVEMENT DESIGN

TRAFFIC LANES — 1.25" CL2 AS 0.38D PG64-22
VARIES DGA WEDGE

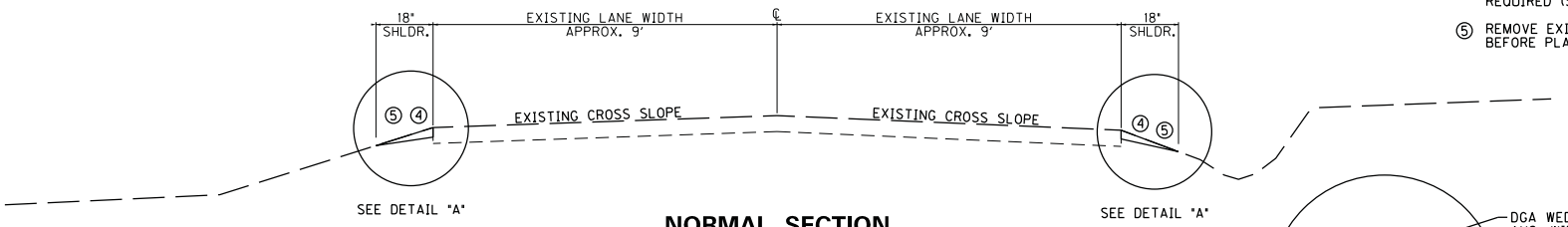
PAVED SHOULDER — 4.00" DENSE GRADED AGGREGATE

N.T.S.

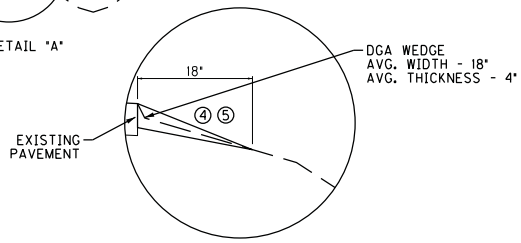
JONES ROAD APPROACH
TYPICAL SECTIONS

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

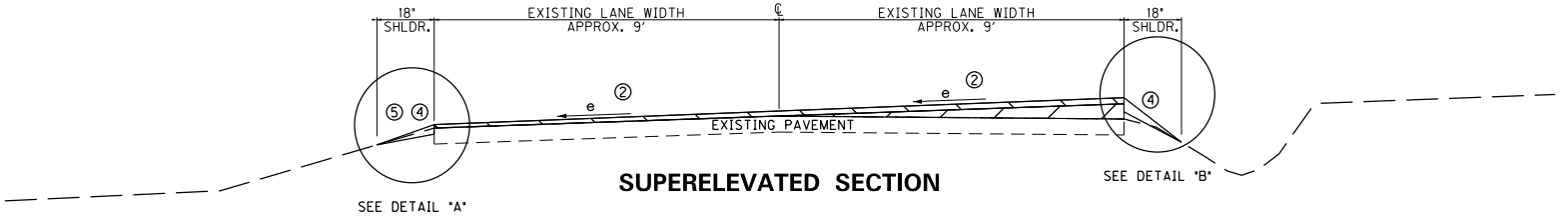
NOTES:
① SEE X-SECTIONS FOR SLOPES OUTSIDE OF SHOULDER.
② SEE PLANS FOR e RATE
③ WIDEN SHOULDER 3' WHERE GUARDRAIL IS REQUIRED
④ DOUBLE ASPHALT SEAL COAT REQUIRED (SEE SPCL. NOTE)
⑤ REMOVE EXISTING SOD BEFORE PLACING DGA WEDGE



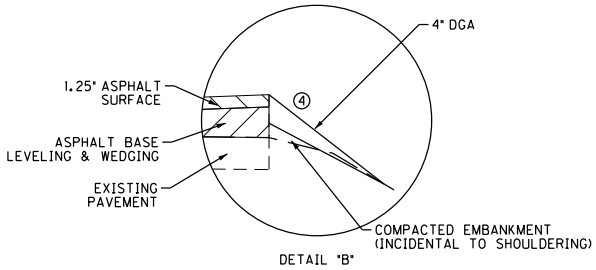
NORMAL SECTION



DETAIL "A"



SUPERELEVATED SECTION



DETAIL "B"

PAVEMENT DESIGN

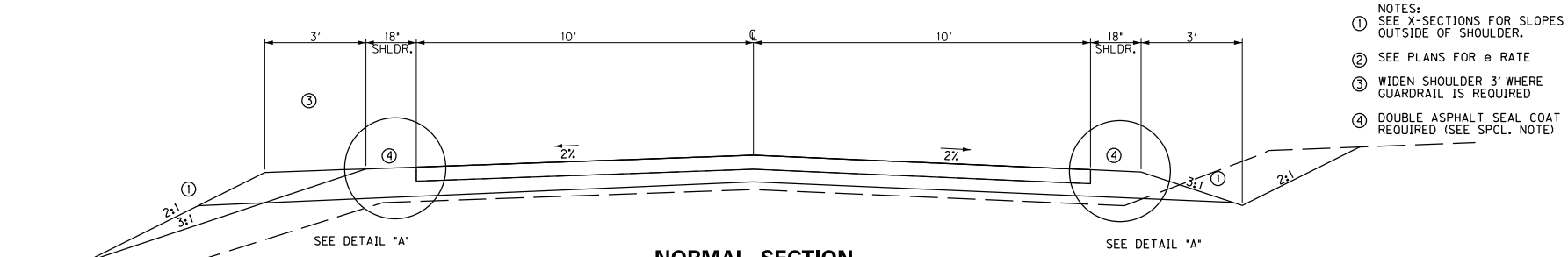
TRAFFIC LANES — 1.25" CL2 AS 0.38D PG64-22
VARIES DGA WEDGE

PAVED SHOULDER — 4.00" DENSE GRADED AGGREGATE

N.T.S.

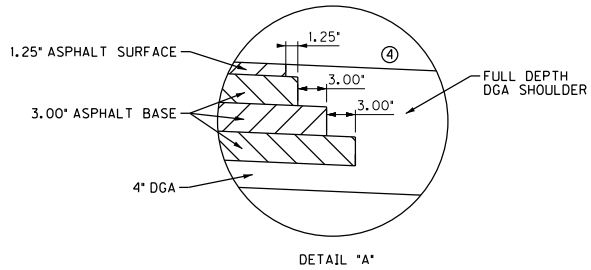
KY 999 APPROACH
TYPICAL SECTIONS

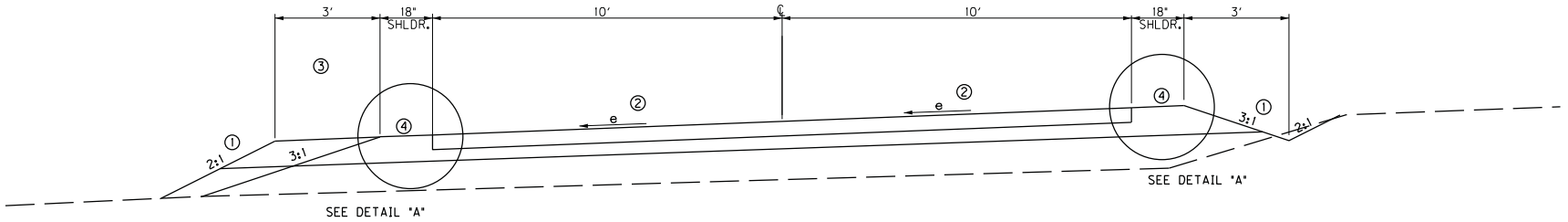
COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00



NOTES:
1. SEE X-SECTIONS FOR SLOPES OUTSIDE OF SHOULDER.
2. SEE PLANS FOR e RATE
3. WIDEN SHOULDER 3' WHERE GUARDRAIL IS REQUIRED
4. DOUBLE ASPHALT SEAL COAT REQUIRED (SEE SPCL. NOTE)

NORMAL SECTION
STA. 47+00 TO STA. 49+39





SUPERELEVATED SECTION
STA. 47+00 TO STA. 49+39

PAVEMENT DESIGN

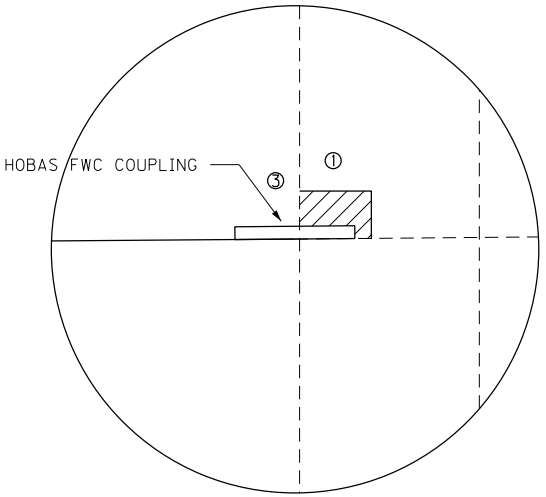
TRAFFIC LANES — 1.25" CL2 AS 0.38D PG64-22
VARIES DGA WEDGE

PAVED SHOULDER — 4.00" DENSE GRADED AGGREGATE

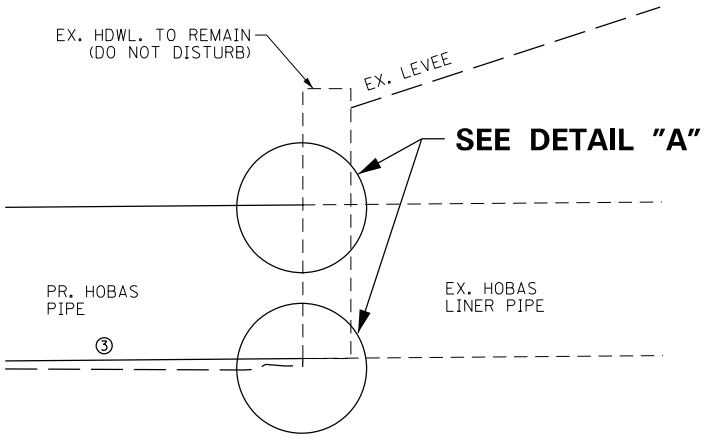
N.T.S.

CLARK LINE ROAD
TYPICAL SECTIONS

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00



DETAIL "A"

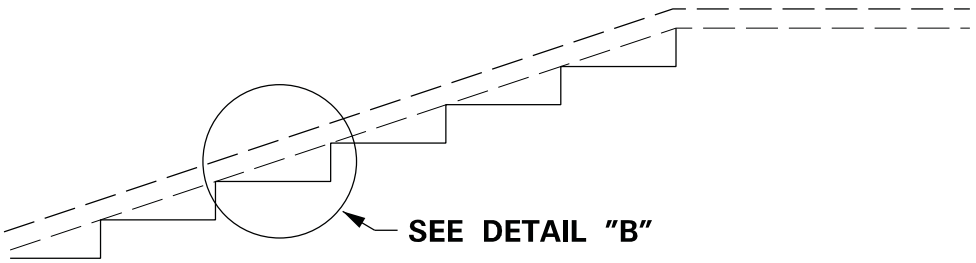


LEVEE PIPE CONNECTION DETAIL

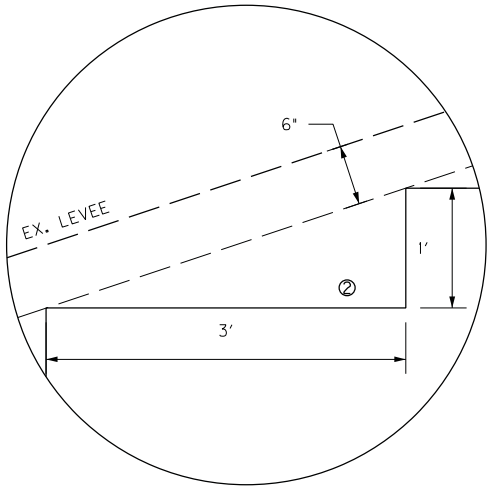
NOTES:
① REMOVE GROUT FROM AROUND END OF EXISTING LINER PIPE, AT PROPOSED PIPE CONNECTION, APPROXIMATELY 4" WIDE AND 6" DEEP SUCH THAT NO DAMAGE IS DONE TO EXISTING LINER PIPE.

② ALL BENCHING WITHIN THE LEVEE EMBANKMENT SHALL MEET REQUIREMENTS AS SET FORTH IN USACE STANDARD OPERATING PROCEDURE FOR BENCHING AND COMPACTION OF LEVEE AND FLOODWALL MODIFICATIONS.

③ PIPE CONNECTIONS, BEDDING AND BACKFILL SHALL FOLLOW HOBAS SPECIFICATIONS DETAILED IN THIS PROPOSAL.



LEVEE BENCHING DETAIL

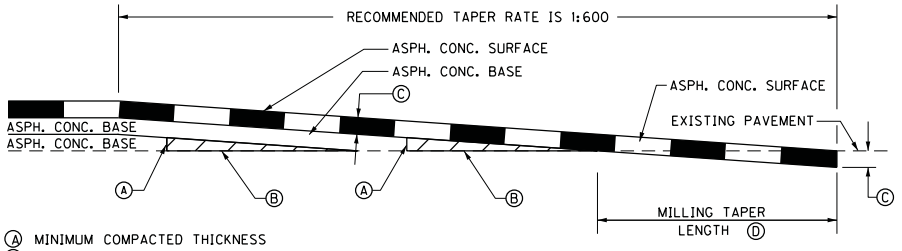


DETAIL "B"

N.T.S.

LEVEE BENCHING
& LEVEE PIPE
CONNECTION DETAIL

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00



Ⓐ MINIMUM COMPACTED THICKNESS
Ⓑ ASPHALT MIXTURE FOR LEVELING AND WEDGING OR NEXT COURSE OF ASPHALT MIXTURE.
Ⓒ ASPHALT SURFACE THICKNESS (FULL DEPTH)
Ⓓ MILL EXISTING PAVEMENT TO RECEIVE ASPHALT SURFACE FULL DEPTH (EDGE KEY).
TAPER LENGTH (ft) = $\frac{t\ (in) \times \text{TAPER RATE}}{12}$

FOR A TAPER RATE OF 1:600
TAPER LENGTH = 62.5 FEET WHEN t = 1.25 inches

TAPERING OF OVERLAYS

N.T.S.

EDGE KEY
DETAIL

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

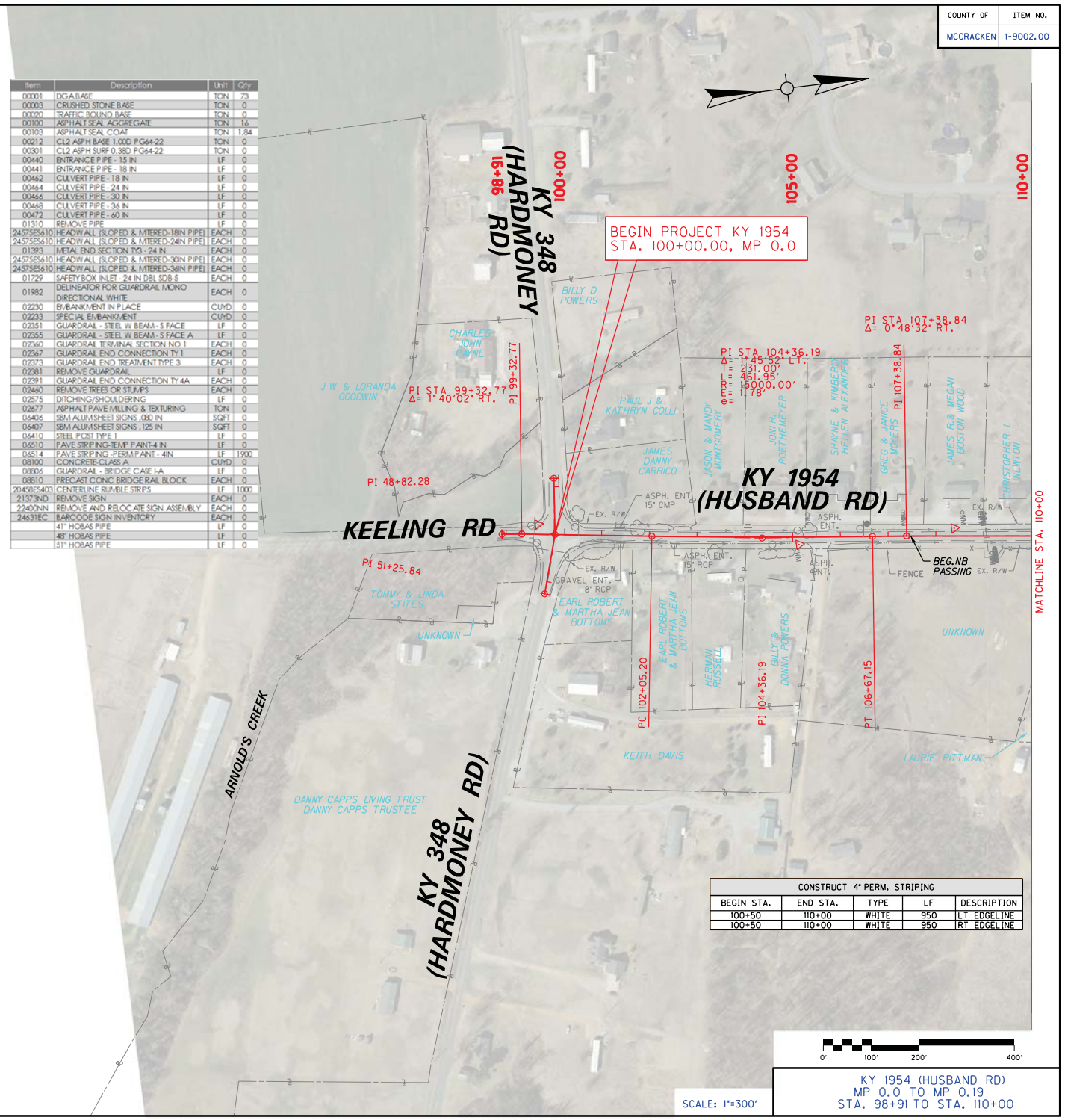
CONVENTIONAL SIGNS

SURVEY LINE
GRADE LINE
GROUND LINE
EXIST. RIGHT OF WAY & PROPERTY LINE
EXISTING ROAD
FENCE (EXCEPT STONE AND HEDGE)
GUARDRAIL
WATER MAIN
GAS MAIN
OVERHEAD WIRE
EASEMENT LINE
SWAMP OR MARSH
CURVE NUMBER

NOTE: STATIONS ARE BASED ON STA. 100+00 = MP 0.0, THEN ACTUAL MILEPOINTS WHERE 1 MILE = 5,280 FEET

DRAWING PROVIDED FOR INFORMATION ONLY. QUANTITIES FOR THIS DRAWING ARE USED TO APPROXIMATE COST ESTIMATES.

Item	Description	Unit	Qty
00001	DG-A BASE	TON	73
00003	CRUSHED STONE BASE	TON	0
00020	TRAFFIC BOUND BASE	TON	0
00100	ASPHALT SEAL AGGREGATE	TON	16
00103	ASPHALT SEAL COAT	TON	1.84
00212	CL2 ASPH BASE 1.00D PG64-22	TON	0
00301	CL2 ASPH SURF 0.38D PG64-22	TON	0
00440	ENTRANCE PIPE - 15 IN	LF	0
00441	ENTRANCE PIPE - 18 IN	LF	0
00462	CULVERT PIPE - 18 IN	LF	0
00464	CULVERT PIPE - 24 IN	LF	0
00466	CULVERT PIPE - 30 IN	LF	0
00468	CULVERT PIPE - 36 IN	LF	0
00472	CULVERT PIPE - 60 IN	LF	0
01310	REMOVE PIPE	LF	0
24575ES610	HEADWALL (SLOPED & MITERED-18IN PIPE)	EACH	0
24575ES610	HEADWALL (SLOPED & MITERED-24IN PIPE)	EACH	0
01393	METAL END SECTION TYS - 24 IN	EACH	0
24575ES610	HEADWALL (SLOPED & MITERED-30IN PIPE)	EACH	0
24575ES610	HEADWALL (SLOPED & MITERED-36IN PIPE)	EACH	0
01729	SAFETY BOX INLET - 24 IN DBL SD8-5	EACH	0
01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	EACH	0
02230	EMBANKMENT IN PLACE	CUYD	0
02233	SPECIAL EMBANKMENT	CUYD	0
02351	GUARDRAIL - STEEL W BEAM - S FACE	LF	0
02355	GUARDRAIL - STEEL W BEAM - S FACE A	LF	0
02360	GUARDRAIL TERMINAL SECTION NO 1	EACH	0
02367	GUARDRAIL END CONNECTION TY 1	EACH	0
02373	GUARDRAIL END TREATMENT TYPE 3	EACH	0
02381	REMOVE GUARDRAIL	LF	0
02391	GUARDRAIL END CONNECTION TY 4A	EACH	0
02460	REMOVE TREES OR STUMPS	EACH	0
02575	DITCHING/SHOULDERING	LF	0
02677	ASPHALT PAVE MILLING & TEXTURING	TON	0
04426	SIM ALUM SHEET SIGNS .080 IN	SQFT	0
04607	SIM ALUM SHEET SIGNS .125 IN	SQFT	0
06410	STEEL POST TYPE 1	LF	0
06510	PAVE STRIPING-TEMP PAINT-4 IN	LF	0
06514	PAVE STRIPING - PERM PAINT - 4IN	LF	1900
08100	CONCRETE-CLASS A	CUYD	0
08806	GUARDRAIL - BRIDGE CASE I-A	LF	0
08810	PRECAST CONC BRIDGE RAIL BLOCK	EACH	0
20458ES403	CENTERLINE RUMBLE STRIPS	LF	1000
21373ND	REMOVE SIGN	EACH	0
22400NN	REMOVE AND RELOCATE SIGN ASSEMBLY	EACH	0
24631EC	BARCODE SIGN INVENTORY	EACH	0
	41" HOBAS PIPE	LF	0
	48" HOBAS PIPE	LF	0
	51" HOBAS PIPE	LF	0



CONSTRUCT 4" PERM. STRIPING				
BEGIN STA.	END STA.	TYPE	LF	DESCRIPTION
100+50	110+00	WHITE	950	LT EDGELINE
100+50	110+00	WHITE	950	RT EDGELINE

KY 1954 (HUSBAND RD)
MP 0.0 TO MP 0.19
STA. 98+91 TO STA. 110+00

UTILITY OWNERS

ELECTRIC
JACKSON PURCHASE ENERGY
SCOTT RIBBLE
2900 IRVIN COBB DRIVE
PADUCAH, KY 42002
OFFICE (270)442-7321
DIRECT (270)556-0112

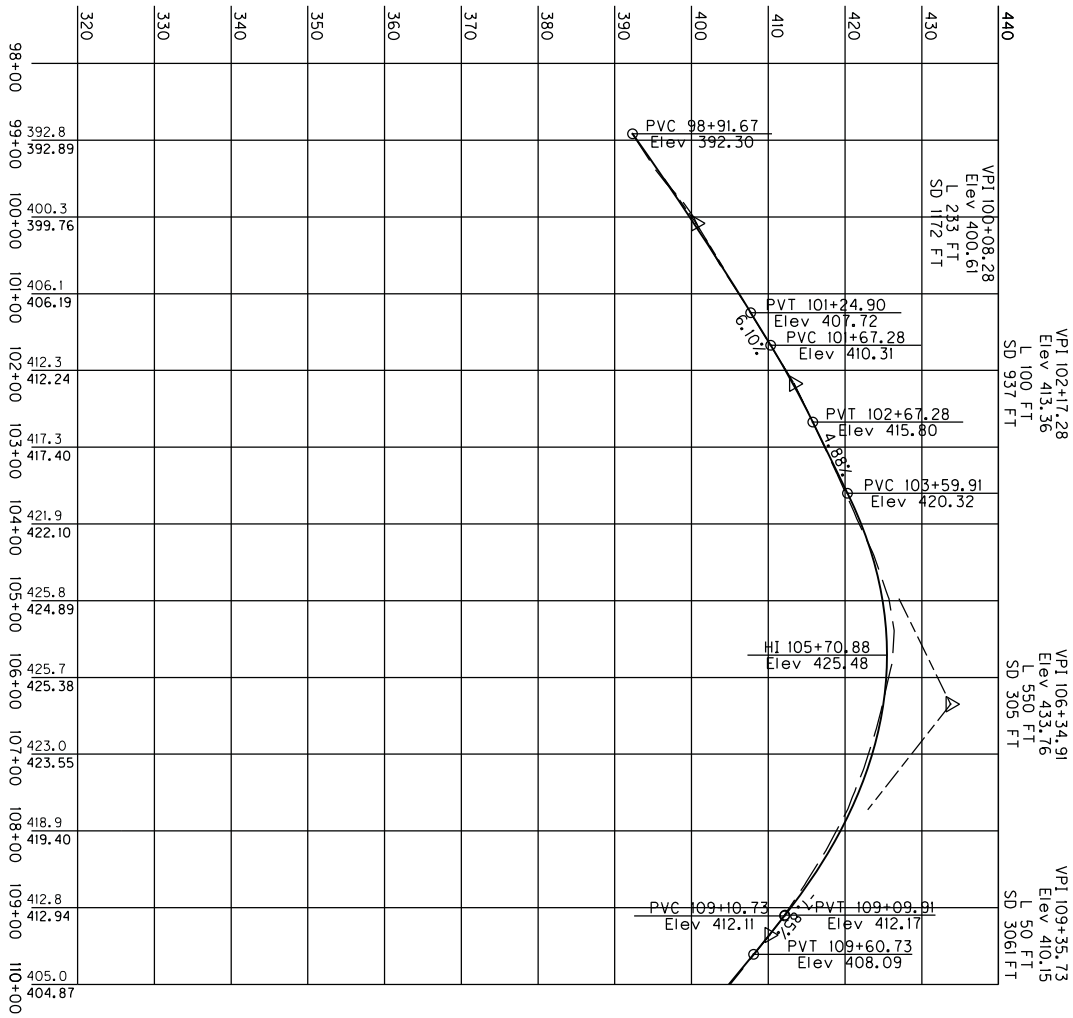
WATER
PADUCAH WATER
JASON PETERSON
1800 NORTH 8TH STREET
PADUCAH, KY 42001
OFFICE (270)442-2746
DIRECT (270)443-9627
JPETERSON@PWWKY.COM

FLOODWALL AREA
CITY OF PADUCAH
RICK MURPHY
CITY HALL, 2ND FLOOR
300 SOUTH 5TH STREET
PADUCAH, KY 42002
OFFICE (270)444-8511

ELECTRIC
BIG RIVERS ELECTRIC
DALE RECTOR
201 3RD STREET
HENDERSON, KY 42420
OFFICE (270)827-2561

TELEPHONE
AT&T
ALAN SHELBY
5021 HINKLEVILLE RD.
PADUCAH, KY 42001
OFFICE (270)210-3563
DIRECT (270)444-5048
AS7168@ATT.COM

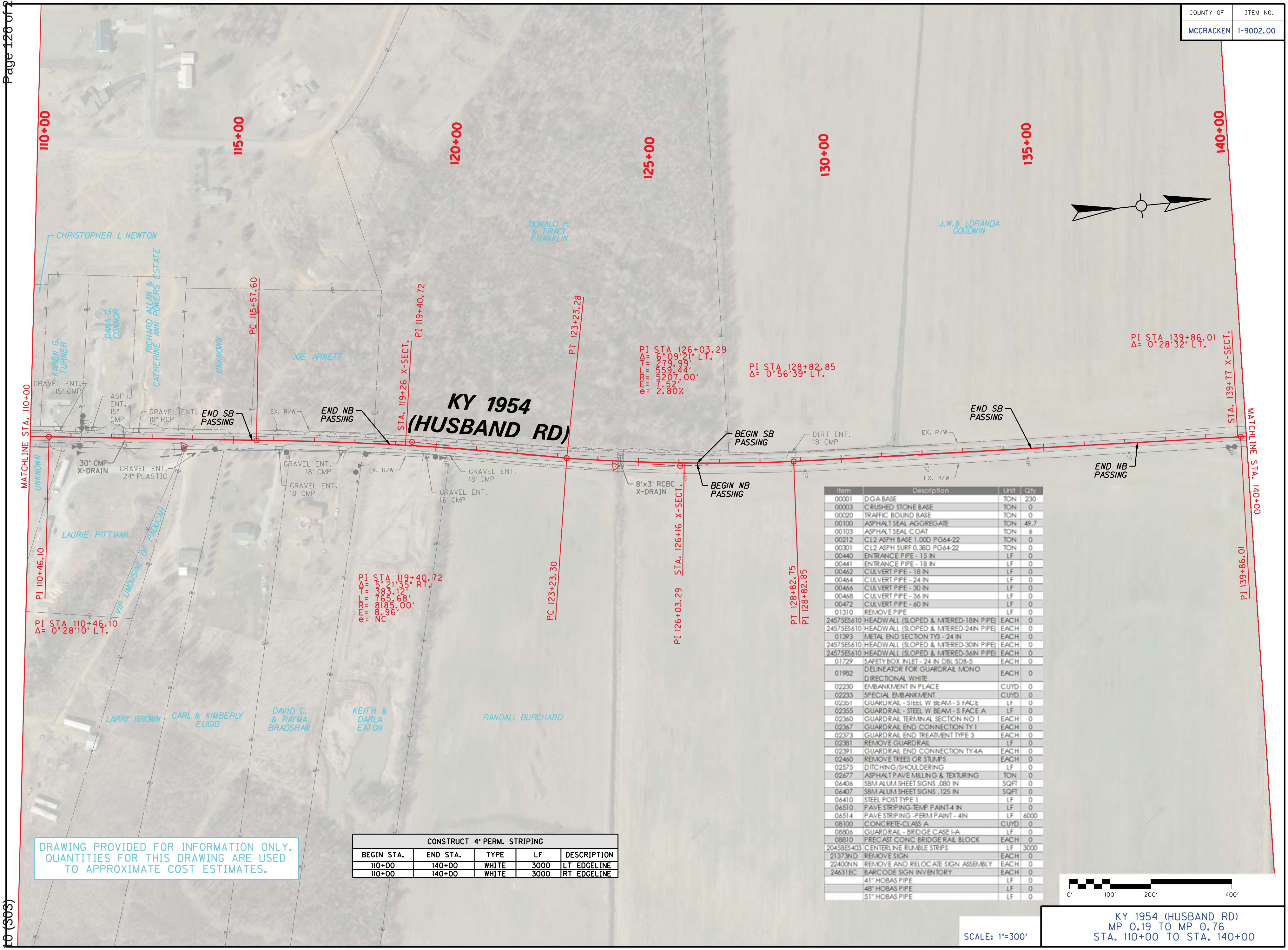
GAS
ATMOS ENERGY
EDDIE TUCKER
3510 COLEMAN ROAD
PADUCAH, KY 42001
OFFICE (270)201-2136
DIRECT (270)556-2290



SCALE: 1" = 100' HORIZONTAL
1" = 10' VERTICAL

KY 1954 (HUSBAND RD)
MP 0.0 TO MP 0.19
STA. 98+91 TO STA. 110+00

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00



DRAWING PROVIDED FOR INFORMATION ONLY. QUANTITIES FOR THIS DRAWING ARE USED TO APPROXIMATE COST ESTIMATES.

CONSTRUCT 4" PERM. STRIPING

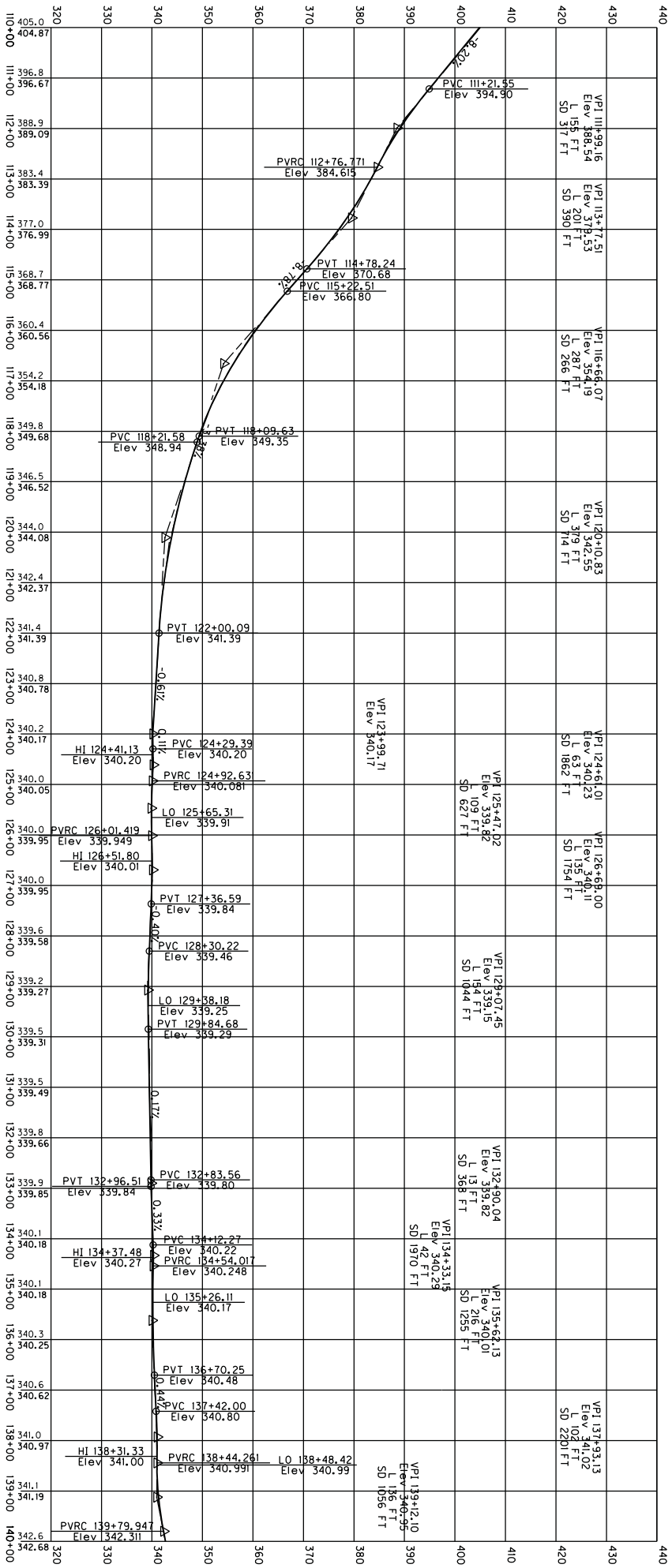
BEGIN STA.	END STA.	TYPE	LF	DESCRIPTION
110+00	140+00	WHITE	3000	LT EDGELINE
110+00	140+00	WHITE	3000	RT EDGELINE

Item	Description	Unit	Qty
00001	DGA BASE	TON	230
00003	CRUSHED STONE BASE	TON	0
00020	TRAFFIC BOUND BASE	TON	0
00100	ASPHALT SEAL AGGREGATE	TON	49.7
00103	ASPHALT SEAL COAT	TON	6
00212	CL2 ASPH BASE 1.00D PG64-22	TON	0
00301	CL2 ASPH SURF 0.38D PG64-22	TON	0
00440	ENTRANCE PIPE - 15 IN	LF	0
00441	ENTRANCE PIPE - 18 IN	LF	0
00462	CULVERT PIPE - 18 IN	LF	0
00464	CULVERT PIPE - 24 IN	LF	0
00466	CULVERT PIPE - 30 IN	LF	0
00468	CULVERT PIPE - 36 IN	LF	0
00472	CULVERT PIPE - 60 IN	LF	0
01310	REMOVE PIPE	LF	0
24575ES610	HEADWALL (SLOPED & MITERED-18IN PIPE)	EACH	0
24575ES610	HEADWALL (SLOPED & MITERED-24IN PIPE)	EACH	0
01393	METAL END SECTION TY3 - 24 IN	EACH	0
24575ES610	HEADWALL (SLOPED & MITERED-30IN PIPE)	EACH	0
24575ES610	HEADWALL (SLOPED & MITERED-36IN PIPE)	EACH	0
01729	SAFETY BOX INLET - 24 IN DBL SDB-5	EACH	0
01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	EACH	0
02230	EMBANKMENT IN PLACE	CUYD	0
02233	SPECIAL EMBANKMENT	CUYD	0
02351	GUARDRAIL - STEEL W BEAM - S FACE	LF	0
02355	GUARDRAIL - STEEL W BEAM - S FACE A	LF	0
02360	GUARDRAIL TERMINAL SECTION NO 1	EACH	0
02367	GUARDRAIL END CONNECTION TY 1	EACH	0
02373	GUARDRAIL END TREATMENT TYPE 3	EACH	0
02381	REMOVE GUARDRAIL	LF	0
02391	GUARDRAIL END CONNECTION TY 4A	EACH	0
02460	REMOVE TREES OR STUMPS	EACH	0
02575	DITCHING/SHOULDERING	LF	0
02677	ASPHALT PAVE MILLING & TEXTURING	TON	0
06406	SBM ALUM SHEET SIGNS .080 IN	SQFT	0
06407	SBM ALUM SHEET SIGNS .125 IN	SQFT	0
06410	STEEL POST TYPE 1	LF	0
06510	PAVE STRIPING-TEMP PAINT-4 IN	LF	0
06514	PAVE STRIPING -PERM PAINT - 4IN	LF	6000
08100	CONCRETE-CLASS A	CUYD	0
08806	GUARDRAIL - BRIDGE CASE I-A	LF	0
08810	PRECAST CONC BRIDGE RAIL BLOCK	EACH	0
20458ES403	CENTERLINE RUMBLE STRIPS	LF	3000
21373ND	REMOVE SIGN	EACH	0
22400NN	REMOVE AND RELOCATE SIGN ASSEMBLY	EACH	0
24631EC	BARCODE SIGN INVENTORY	EACH	0
	41" HOBAS PIPE	LF	0
	48" HOBAS PIPE	LF	0
	51" HOBAS PIPE	LF	0

SCALE: 1"=300'

KY 1954 (HUSBAND RD)
MP 0.19 TO MP 0.76
STA. 110+00 TO STA. 140+00

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00



KY 1954 (HUSBAND RD)
MP 0.19 TO MP 0.76
STA. 110+00 TO STA. 140+00

SCALE: 1" = 100' HORIZONTAL
1" = 10' VERTICAL

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

DITCHING & SHOULDER LT.		FT
STA. 141+50 TO STA. 143+00		150

REMOVE GUARDRAIL		
BEGIN STA.	END STA.	LF
141+49	141+61	12.5'

CONSTRUCT GUARDRAIL LT.					
BEGIN STATION	TYPE	END TREAT.	END STATION	END TREAT.	LF
141+49	SF(A)	--	141+74	--	25
141+74	SF	--	141+85	TERM. 1	12.5

INLET-OUTLET DITCH		
STA. 149+09	INLET-OUTLET DT.	20'
STA. 151+80	INLET DT.	10'
STA. 155+77	INLET DT.	10'
STA. 156+48	INLET DT.	10'

CROSSDRAIN					
STATION	SIZE	LF	PIPE TYPE	HEADWALL TYPE	HEADWALL RT/LT
149+09	30"	8' RT/8' LT	RCP	SLOPED & MITERED	RT&LT
151+80	30"	11' (RT)	RCP	SLOPED & MITERED	RT
155+77	36"	11' (RT)	RCP	SLOPED & MITERED	RT
156+48	36"	12' (RT)	RCP	SLOPED & MITERED	RT

CONSTRUCT GUARDRAIL RT.					
BEGIN STATION	TYPE	END TREAT.	END STATION	END TREAT.	LF
141+53	SF(A)	--	141+78	--	25
141+78	SF	--	141+87	TERM. 1	12.5

REMOVE GUARDRAIL		
BEGIN STA.	END STA.	LF
141+54	141+66	12.5'

DITCHING & SHOULDER RT.		FT
STA. 141+50 TO STA. 143+00		150

ENTRANCE CONSTRUCTION RT.					
STATION	WIDTH	TYPE	PIPE LNG.	PIPE SIZE	SURFACE TYPE
141+82	14'	FIELD	--	--	GRAVEL

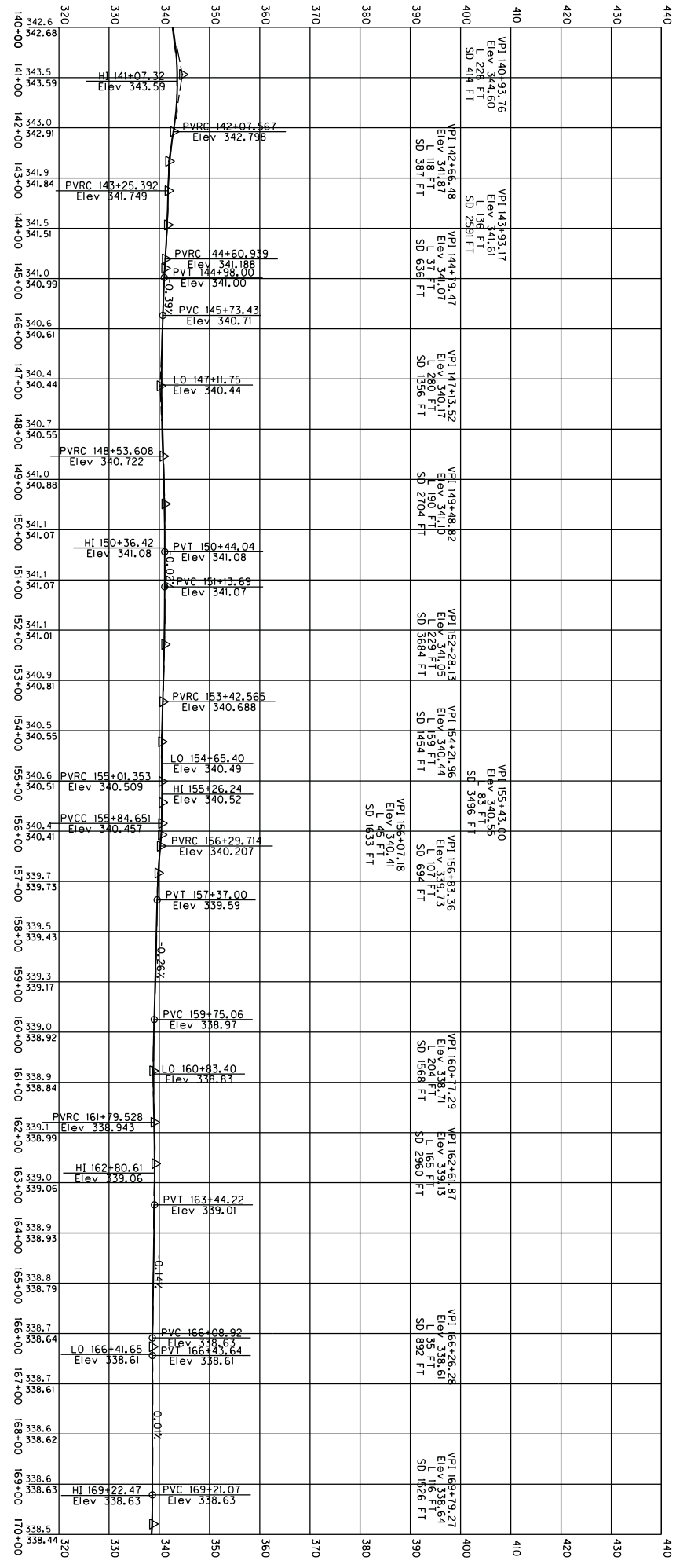
Item	Description	Unit	Qty
00001	DGA BASE	TON	231
00003	CRUSHED STONE BASE	TON	0
00020	TRAFFIC BOUND BASE	TON	3
00100	ASPHALT SEAL AGGREGATE	TON	49.9
00103	ASPHALT SEAL COAT	TON	5.99
00212	CL2 ASPH BASE 1.00D PG64-22	TON	0
00301	CL2 ASPH SURF 0.38D PG64-22	TON	0
00440	ENTRANCE PIPE - 15 IN	LF	0
00441	ENTRANCE PIPE - 18 IN	LF	0
00462	CULVERT PIPE - 18 IN	LF	0
00464	CULVERT PIPE - 24 IN	LF	0
00466	CULVERT PIPE - 30 IN	LF	27
00468	CULVERT PIPE - 36 IN	LF	23
00472	CULVERT PIPE - 60 IN	LF	0
01310	REMOVE PIPE	LF	0
24575ES610	HEADWALL (SLOPED & MITERED-18IN PIPE)	EACH	0
24575ES610	HEADWALL (SLOPED & MITERED-24IN PIPE)	EACH	0
01393	METAL END SECTION TY3 - 24 IN	EACH	0
24575ES610	HEADWALL (SLOPED & MITERED-30IN PIPE)	EACH	3
24575ES610	HEADWALL (SLOPED & MITERED-36IN PIPE)	EACH	2
01729	SAFETY BOX INLET - 24 IN DBL SD8-5	EACH	0
01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	EACH	2
02230	EMBANKMENT IN PLACE	CUYD	0
02233	SPECIAL EMBANKMENT	CUYD	0
02351	GUARDRAIL - STEEL W BEAM - S FACE	LF	25
02355	GUARDRAIL - STEEL W BEAM - S FACE A	LF	50
02360	GUARDRAIL TERMINAL SECTION NO 1	EACH	2
02367	GUARDRAIL END CONNECTION TY 1	EACH	0
02373	GUARDRAIL END TREATMENT TYPE 3	EACH	0
02381	REMOVE GUARDRAIL	LF	25
02391	GUARDRAIL END CONNECTION TY 4A	EACH	0
02460	REMOVE TREES OR STUMPS	EACH	0
02575	DITCHING/SHOULDERING	LF	350
02677	ASPHALT PAVE MILLING & TEXTURING	TON	0
06406	SBM ALUM SHEET SIGNS .080 IN	SQFT	0
06407	SBM ALUM SHEET SIGNS .125 IN	SQFT	0
06410	STEEL POST TYPE 1	LF	0
06510	PAVE STRIPING-TEMP PAINT-4 IN	LF	0
06514	PAVE STRIPING -PERM PAINT - 4IN	LF	6000
08100	CONCRETE CLASS A	CUYD	8.4
08806	GUARDRAIL - BRIDGE CASE I-A	LF	0
08810	PRECAST CONC BRIDGE RAIL BLOCK	EACH	2
20458E5403	CENTERLINE RUMBLE STRIPS	LF	3000
21373ND	REMOVE SIGN	EACH	0
22400NN	REMOVE AND RELOCATE SIGN ASSEMBLY	EACH	5
24631EG	BARCODE SIGN INVENTORY	EACH	0
	41" HOBAS PIPE	LF	0
	48" HOBAS PIPE	LF	0
	51" HOBAS PIPE	LF	0

CONSTRUCT 4" PERM. STRIPING				
BEGIN STA.	END STA.	TYPE	LF	DESCRIPTION
140+00	170+00	WHITE	3000	LT EDGELINE
140+00	170+00	WHITE	3000	RT EDGELINE

DRAWING PROVIDED FOR INFORMATION ONLY. QUANTITIES FOR THIS DRAWING ARE USED TO APPROXIMATE COST ESTIMATES.

SCALE: 1"=300'

KY 1954 (HUSBAND RD)
MP. 0.76 TO MP 1.33
STA. 140+00 TO STA. 170+00



KY 1954 (HUSBAND RD)
MP 0.76 TO MP 1.33
STA. 140+00 TO STA. 170+00

SCALE: 1" = 100' HORIZONTAL
1" = 10' VERTICAL

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

CONSTRUCT GUARDRAIL LT.					
BEGIN STATION	TYPE	END TREAT.	END STATION	END TREAT.	LF
172+37	SF	TERM. I	174+15	--	187.5
174+15	SF(A)	--	174+40	--	25
174+40	CASE I-A	--	174+77	--	37.5
174+77	SF(A)	--	175+02	--	25
175+02	SF	--	176+77	TY. 4A	137.5

DITCHING & SHOULDER LT.	FT
STA. 176+75 TO STA. 178+25	150

REMOVE GUARDRAIL LT.		
BEGIN STA.	END STA.	LF
172+29	176+98	475'

INLET-OUTLET DITCH	
STA. 182+54	INLET&OUTLET DT. 20'
STA. 182+92	INLET&OUTLET DT. 20'

CROSSDRAIN					
STATION	SIZE	LF	PIPE TYPE	HEADWALL TYPE	HEADWALL RT/LT
182+54	24"	37'	RCP	SLOPED & MITERED DBL SDB-5	RT LT
182+92	24"	40'	RCP	SLOPED & MITERED	RT&LT
49+81 GEIBE RD	24"	0	RCP	DBL SDB-5	RT

CONSTRUCT GUARDRAIL RT.					
BEGIN STATION	TYPE	END TREAT.	END STATION	END TREAT.	LF
172+52	SF	TY. 4A	174+27	--	137.5
174+27	SF(A)	--	174+52	--	25
174+52	CASE I-A	--	174+89	--	37.5
174+89	SF(A)	--	175+14	--	25
175+14	SF	--	176+89	TY. 4A	137.5

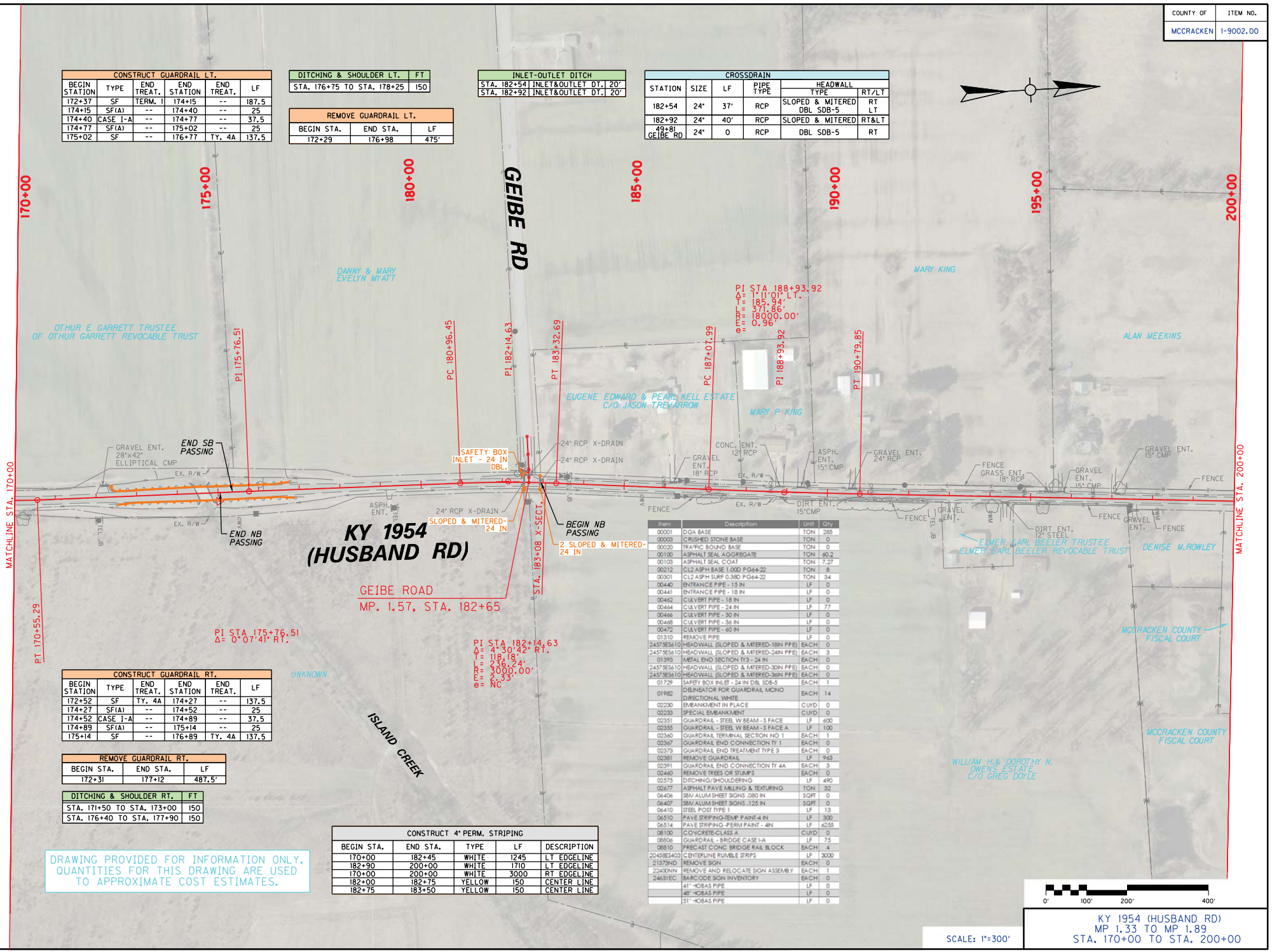
REMOVE GUARDRAIL RT.		
BEGIN STA.	END STA.	LF
172+31	177+12	487.5'

DITCHING & SHOULDER RT.	FT
STA. 171+50 TO STA. 173+00	150
STA. 176+40 TO STA. 177+90	150

CONSTRUCT 4" PERM. STRIPING				
BEGIN STA.	END STA.	TYPE	LF	DESCRIPTION
170+00	182+45	WHITE	1245	LT EDGELINE
182+90	200+00	WHITE	1710	LT EDGELINE
170+00	200+00	WHITE	3000	RT EDGELINE
182+00	182+75	YELLOW	150	CENTER LINE
182+75	183+50	YELLOW	150	CENTER LINE

DRAWING PROVIDED FOR INFORMATION ONLY. QUANTITIES FOR THIS DRAWING ARE USED TO APPROXIMATE COST ESTIMATES.

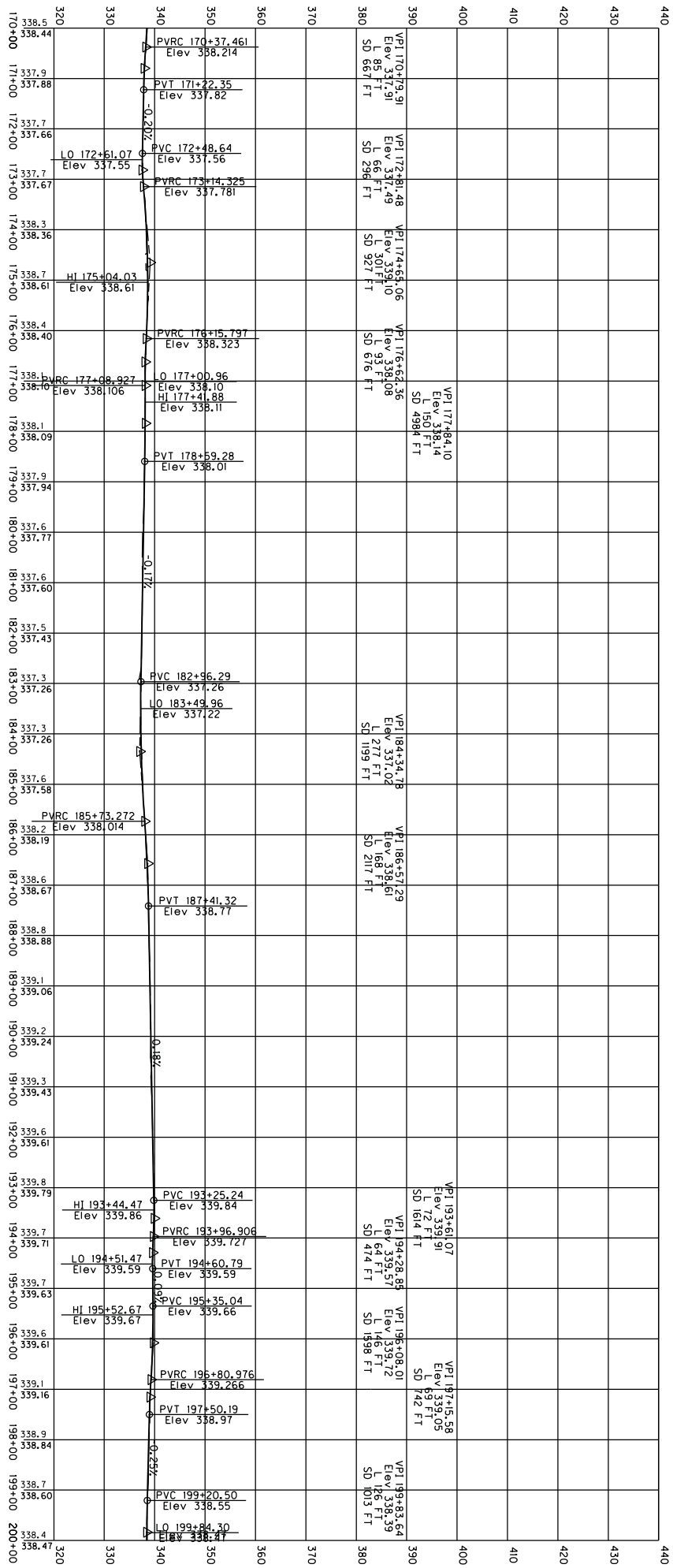
Item	Description	Unit	Qty
00001	DGA BASE	TON	285
00003	CRUSHED STONE BASE	TON	0
00020	TRAFFIC BOUND BASE	TON	0
00100	ASPHALT SEAL AGGREGATE	TON	60.2
00103	ASPHALT SEAL COAT	TON	7.27
00212	CL2 ASPH BASE 1.00D PG64-22	TON	8
00301	CL2 ASPH SURF 0.38D PG64-22	TON	34
00440	ENTRANCE PIPE - 15 IN	LF	0
00441	ENTRANCE PIPE - 18 IN	LF	0
00462	CULVERT PIPE - 18 IN	LF	0
00464	CULVERT PIPE - 24 IN	LF	77
00466	CULVERT PIPE - 30 IN	LF	0
00468	CULVERT PIPE - 36 IN	LF	0
00472	CULVERT PIPE - 60 IN	LF	0
01310	REMOVE PIPE	LF	0
24575E5610	HEADWALL (SLOPED & MITERED-18IN PPE)	EACH	0
24575E5610	HEADWALL (SLOPED & MITERED-24IN PPE)	EACH	3
01393	METAL END SECTION TY3 - 24 IN	EACH	0
24575E5610	HEADWALL (SLOPED & MITERED-30IN PPE)	EACH	0
24575E5610	HEADWALL (SLOPED & MITERED-36IN PPE)	EACH	0
01729	SAFETY BOX INLET - 24 IN DBL SDB-5	EACH	1
01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	EACH	14
02230	EMBANKMENT IN PLACE	CUYD	0
02233	SPECIAL EMBANKMENT	CUYD	0
02351	GUARDRAIL - STEEL W BEAM - S FACE	LF	600
02355	GUARDRAIL - STEEL W BEAM - S FACE A	LF	100
02360	GUARDRAIL TERMINAL SECTION NO 1	EACH	1
02367	GUARDRAIL END CONNECTION TY 1	EACH	0
02373	GUARDRAIL END TREATMENT TYPE 3	EACH	0
02381	REMOVE GUARDRAIL	LF	963
02391	GUARDRAIL END CONNECTION TY 4A	EACH	3
02460	REMOVE TREES OR STUMPS	EACH	0
02575	DITCHING/SHOULDERING	LF	490
02677	ASPHALT PAVE MILLING & TEXTURING	TON	32
06406	SBM ALUM SHEET SIGNS .080 IN	SQFT	0
06407	SBM ALUM SHEET SIGNS .125 IN	SQFT	0
06410	STEEL POST TYPE I	LF	13
06510	PAVE STRIPING-TEMP PAINT-4 IN	LF	300
06514	PAVE STRIPING -PERM PAINT - 4IN	LF	6255
08100	CONCRETE-CLASS A	CUYD	0
08806	GUARDRAIL - BRIDGE CASE I-A	LF	75
08810	PRECAST CONC BRIDGE RAIL BLOCK	EACH	4
20458E5403	CENTERLINE RUMBLE STRIPS	LF	3000
21370ND	REMOVE SIGN	EACH	0
22400NN	REMOVE AND RELOCATE SIGN ASSEMBLY	EACH	1
24631EC	BARCODE SIGN INVENTORY	EACH	0
	41" HOBAS PIPE	LF	0
	48" HOBAS PIPE	LF	0
	51" HOBAS PIPE	LF	0



0' 100' 200' 400'

SCALE: 1"=300'

KY 1954 (HUSBAND RD)
MP 1.33 TO MP 1.89
STA. 170+00 TO STA. 200+00

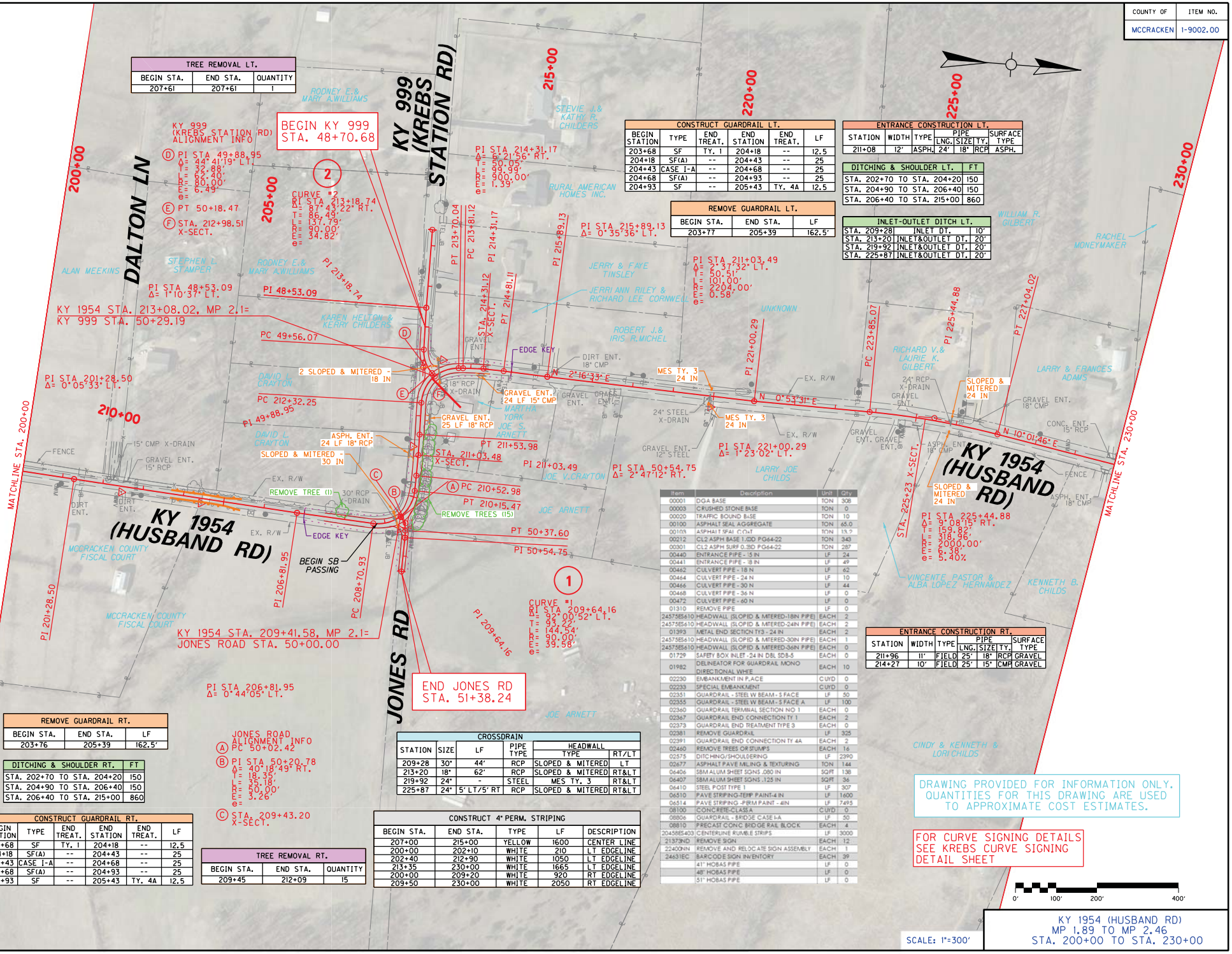


KY 1954 (HUSBAND RD)
MP 1.33 TO MP 1.89
STA. 170+00 TO STA. 200+00

SCALE: 1" = 100' HORIZONTAL
1" = 10' VERTICAL

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00



TREE REMOVAL LT.		
BEGIN STA.	END STA.	QUANTITY
207+61	207+61	1

CONSTRUCT GUARDRAIL LT.					
BEGIN STATION	TYPE	END TREAT.	END STATION	END TREAT.	LF
203+68	SF	TY. 1	204+18	--	12.5
204+18	SF(A)	--	204+43	--	25
204+43	CASE I-A	--	204+68	--	25
204+68	SF(A)	--	204+93	--	25
204+93	SF	--	205+43	TY. 4A	12.5

REMOVE GUARDRAIL LT.		
BEGIN STA.	END STA.	LF
203+77	205+39	162.5'

ENTRANCE CONSTRUCTION LT.					
STATION	WIDTH	TYPE	PIPE		SURFACE TYPE
			LNG.	SIZE	TY.	
211+08	12'	ASPH.	24'	18"	RCP	ASPH.

DITCHING & SHOULDER LT.	FT
STA. 202+70 TO STA. 204+20	150
STA. 204+90 TO STA. 206+40	150
STA. 206+40 TO STA. 215+00	860

INLET-OUTLET DITCH LT.		
STA. 209+28	INLET DT.	10'
STA. 213+20	INLET&OUTLET DT.	20'
STA. 219+92	INLET&OUTLET DT.	20'
STA. 225+87	INLET&OUTLET DT.	20'

ENTRANCE CONSTRUCTION RT.						
STATION	WIDTH	TYPE	PIPE			SURFACE TYPE
			LNG.	SIZE	TY.	
211+96	11'	FIELD	25'	18"	RCP	GRAVEL
214+27	10'	FIELD	25'	15"	CMP	GRAVEL

REMOVE GUARDRAIL RT.		
BEGIN STA.	END STA.	LF
203+76	205+39	162.5'

DITCHING & SHOULDER RT.	FT
STA. 202+70 TO STA. 204+20	150
STA. 204+90 TO STA. 206+40	150
STA. 206+40 TO STA. 215+00	860

CONSTRUCT GUARDRAIL RT.					
BEGIN STATION	TYPE	END TREAT.	END STATION	END TREAT.	LF
203+68	SF	TY. 1	204+18	--	12.5
204+18	SF(A)	--	204+43	--	25
204+43	CASE I-A	--	204+68	--	25
204+68	SF(A)	--	204+93	--	25
204+93	SF	--	205+43	TY. 4A	12.5

TREE REMOVAL RT.		
BEGIN STA.	END STA.	QUANTITY
209+45	212+09	15

CROSSDRAIN					
STATION	SIZE	LF	PIPE TYPE	HEADWALL TYPE	HEADWALL RT/LT
209+28	30"	44'	RCP	SLOPED & MITERED	LT
213+20	18"	62'	RCP	SLOPED & MITERED	RT&LT
219+92	24"	-	STEEL	MES TY. 3	RT&LT
225+87	24"	5' LT/5' RT	RCP	SLOPED & MITERED	RT&LT

CONSTRUCT 4" PERM. STRIPING					
BEGIN STA.	END STA.	TYPE	LF	DESCRIPTION
207+00	215+00	YELLOW	1600	CENTER LINE
200+00	202+10	WHITE	210	LT EDGELINE
202+40	212+90	WHITE	1050	LT EDGELINE
213+35	230+00	WHITE	1665	LT EDGELINE
200+00	209+20	WHITE	920	RT EDGELINE
209+50	230+00	WHITE	2050	RT EDGELINE

Item	Description	Unit	Qty
00001	DGA BASE	TON	308
00003	CRUSHED STONE BASE	TON	0
00020	TRAFFIC BOUND BASE	TON	10
00100	ASPHALT SEAL AGGREGATE	TON	65.0
00103	ASPHALT SEAL COAT	TON	13.7
00212	CL2 ASPH BASE 1.00D PG64-22	TON	343
00301	CL2 ASPH SURF 0.38D PG64-22	TON	287
00440	ENTRANCE PIPE - 15 IN	LF	24
00441	ENTRANCE PIPE - 18 IN	LF	49
00462	CULVERT PIPE - 18 N	LF	62
00464	CULVERT PIPE - 24 N	LF	10
00466	CULVERT PIPE - 30 N	LF	44
00468	CULVERT PIPE - 36 N	LF	0
00472	CULVERT PIPE - 60 N	LF	0
01310	REMOVE PIPE	LF	0
24575ES610	HEADWALL (SLOPED & MITERED-18IN PIPE)	EACH	2
24575ES610	HEADWALL (SLOPED & MITERED-24IN PIPE)	EACH	2
01393	METAL END SECTION TY3 - 24 IN	EACH	2
24575ES610	HEADWALL (SLOPED & MITERED-30IN PIPE)	EACH	1
24575ES610	HEADWALL (SLOPED & MITERED-36IN PIPE)	EACH	0
01729	SAFETY BOX INLET - 24 IN DBL SDB-5	EACH	0
01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	EACH	10
02230	EMBANKMENT IN PLACE	CUYD	0
02233	SPECIAL EMBANKMENT	CUYD	0
02351	GUARDRAIL - STEEL W BEAM - S FACE	LF	50
02355	GUARDRAIL - STEEL W BEAM - S FACE A	LF	100
02360	GUARDRAIL TERMINAL SECTION NO 1	EACH	0
02367	GUARDRAIL END CONNECTION TY 1	EACH	2
02373	GUARDRAIL END TREATMENT TYPE 3	EACH	0
02381	REMOVE GUARDRAIL	LF	325
02391	GUARDRAIL END CONNECTION TY 4A	EACH	2
02460	REMOVE TREES OR STUMPS	EACH	16
02575	DITCHING/SHOULDERING	LF	2390
02677	ASPHALT PAVE MILING & TEXTURING	TON	144
06406	SBM ALUM SHEET SGNS .080 IN	SQFT	138
06407	SBM ALUM SHEET SGNS .125 IN	SQFT	36
06410	STEEL POST TYPE 1	LF	307
06510	PAVE STRIPING-TEMP PAINT-4 IN	LF	1600
06514	PAVE STRIPING -PERM PAINT - 4IN	LF	7495
08100	CONCRETE-CLASS A	CUYD	0
08806	GUARDRAIL - BRIDGE CASE I-A	LF	50
08810	PRECAST CONC BRIDGE RAIL BLOCK	EACH	4
2045ES403	CENTERLINE RUMBLE STRIPS	LF	3000
21373ND	REMOVE SIGN	EACH	12
22400NN	REMOVE AND RELOCATE SIGN ASSEMBLY	EACH	1
2463IEC	BARCODE SIGN INVENTORY	EACH	39
	41" HOBAS PIPE	LF	0
	48" HOBAS PIPE	LF	0
	51" HOBAS PIPE	LF	0

DRAWING PROVIDED FOR INFORMATION ONLY. QUANTITIES FOR THIS DRAWING ARE USED TO APPROXIMATE COST ESTIMATES.

FOR CURVE SIGNING DETAILS SEE KREBS CURVE SIGNING DETAIL SHEET

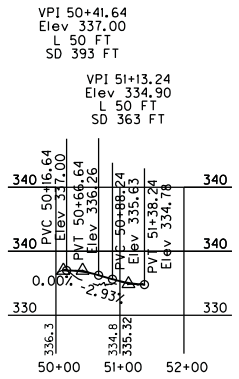
0' 100' 200' 400'

SCALE: 1"=300'

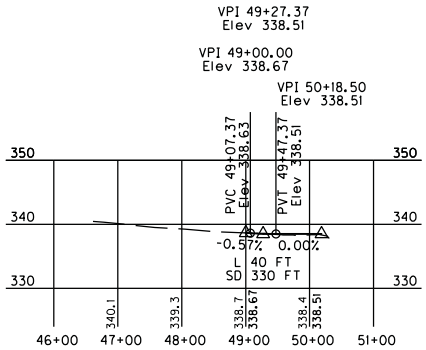
KY 1954 (HUSBAND RD)
MP 1.89 TO MP 2.46
STA. 200+00 TO STA. 230+00

SCALE: 1" = 100' HORIZONTAL
1" = 10' VERTICAL

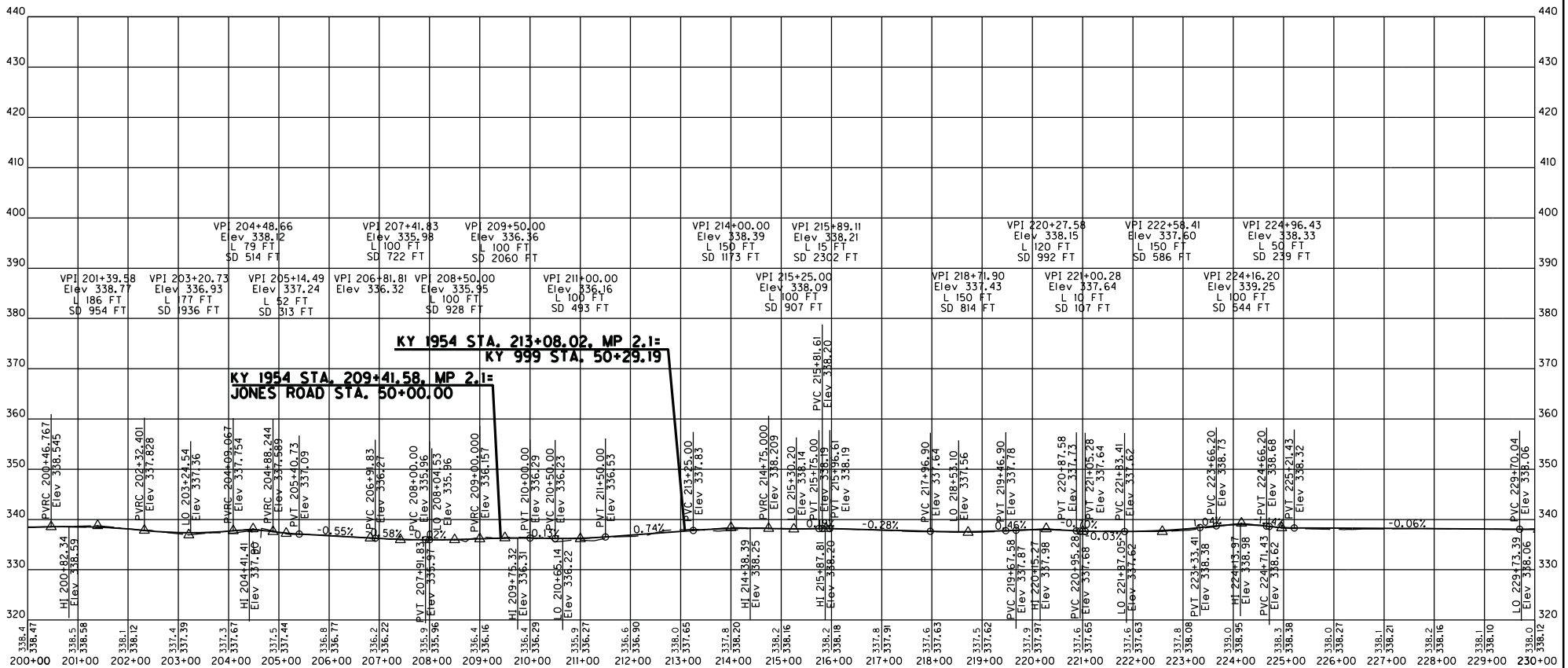
COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00



JONES RD
STA. 50+00 TO STA. 51+38.24

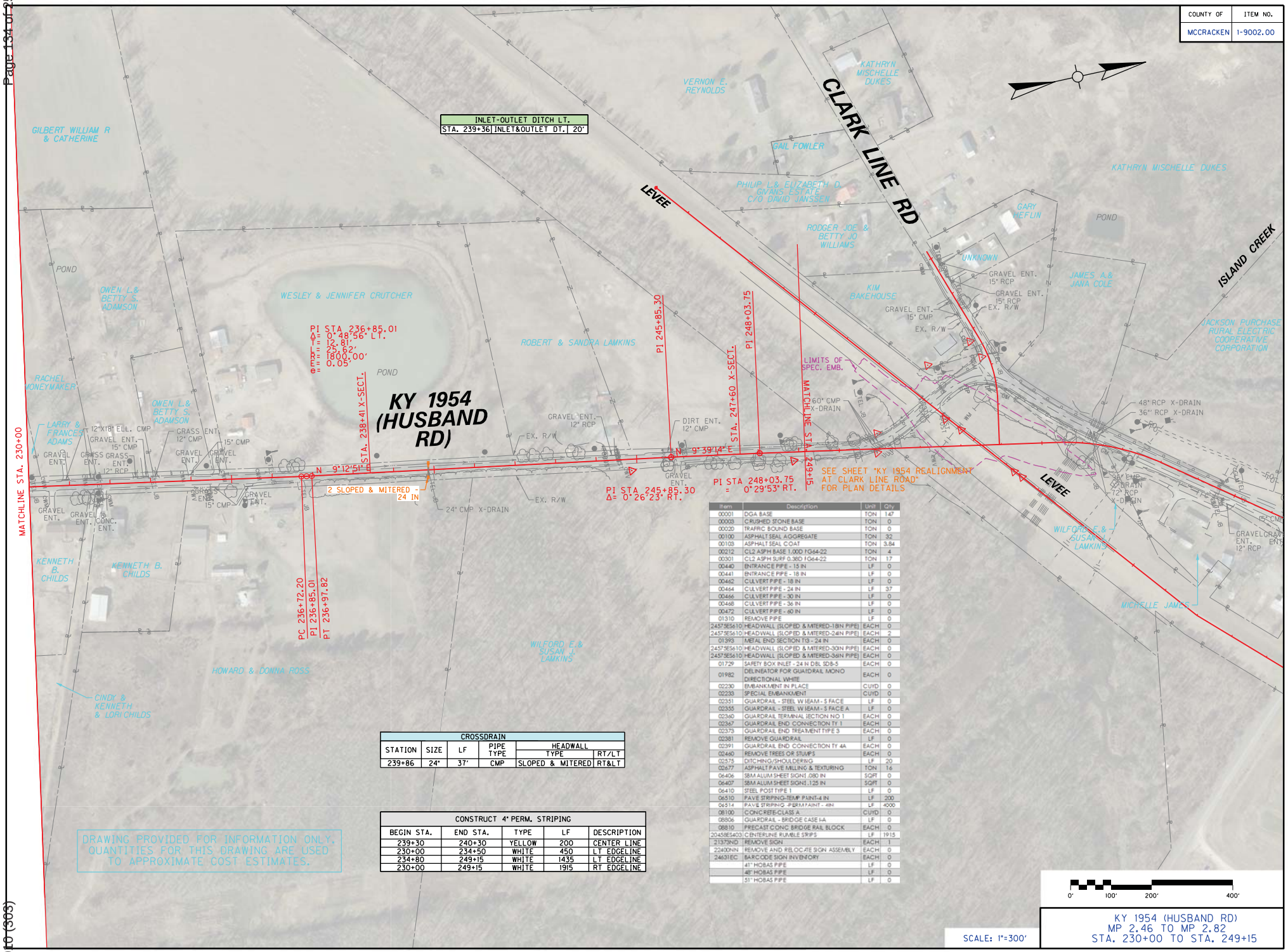


KY 999 (KREBS STATION RD)
STA. 46+41 TO STA. 50+18.50



KY 1954 (HUSBAND RD)
MP 1.89 TO MP 2.46
STA. 200+00 TO STA. 230+00

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00



CROSSDRAIN					
STATION	SIZE	LF	PIPE TYPE	HEADWALL TYPE	HEADWALL RT/LT
239+86	24"	37'	CMP	SLOPED & MITERED	RT&LT

CONSTRUCT 4" PERM. STRIPING				
BEGIN STA.	END STA.	TYPE	LF	DESCRIPTION
239+30	240+30	YELLOW	200	CENTER LINE
230+00	234+50	WHITE	450	LT EDGELINE
234+80	249+15	WHITE	1435	LT EDGELINE
230+00	249+15	WHITE	1915	RT EDGELINE

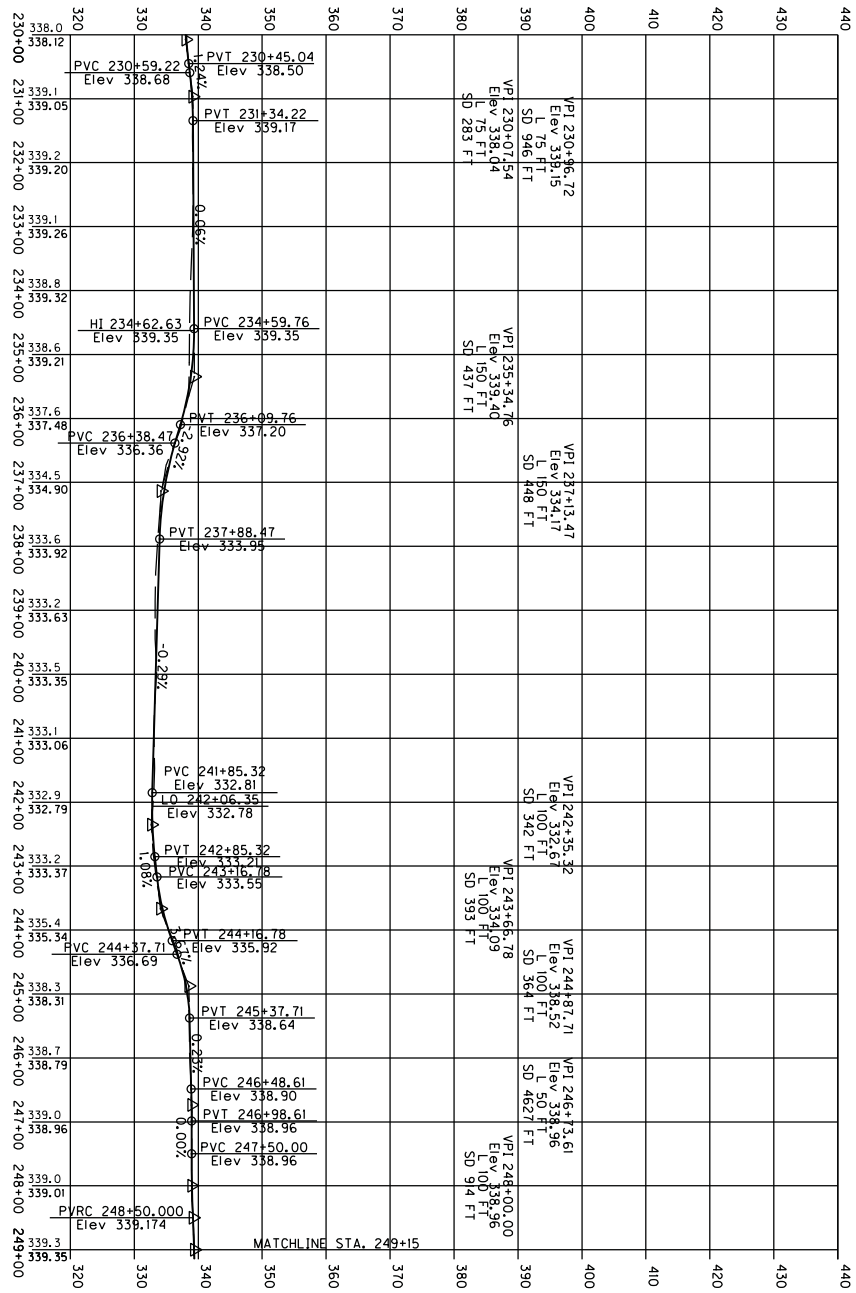
Item	Description	Unit	Qty
00001	DGA BASE	TON	147
00003	CRUSHED STONE BASE	TON	0
00020	TRAFFIC BOUND BASE	TON	0
00100	ASPHALT SEAL AGGREGATE	TON	32
00103	ASPHALT SEAL COAT	TON	3.84
00212	CL2 ASPH BASE 1.00D PG64-22	TON	4
00301	CL2 ASPH SURF 0.38D PG64-22	TON	17
00440	ENTRANCE PIPE - 15 IN	LF	0
00441	ENTRANCE PIPE - 18 IN	LF	0
00462	CULVERT PIPE - 18 IN	LF	0
00464	CULVERT PIPE - 24 IN	LF	37
00466	CULVERT PIPE - 30 IN	LF	0
00468	CULVERT PIPE - 36 IN	LF	0
00472	CULVERT PIPE - 60 IN	LF	0
01310	REMOVE PIPE	LF	0
24575E5610	HEADWALL (SLOPED & MITERED-18IN PIPE)	EACH	0
24575E5610	HEADWALL (SLOPED & MITERED-24IN PIPE)	EACH	2
01393	METAL END SECTION TO - 24 IN	EACH	0
24575E5610	HEADWALL (SLOPED & MITERED-30IN PIPE)	EACH	0
24575E5610	HEADWALL (SLOPED & MITERED-36IN PIPE)	EACH	0
01729	SAFETY BOX INLET - 24 N DBL SDB-5	EACH	0
01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	EACH	0
02230	EMBANKMENT IN PLACE	CUYD	0
02233	SPECIAL EMBANKMENT	CUYD	0
02351	GUARDRAIL - STEEL W BEAM - S FACE	LF	0
02355	GUARDRAIL - STEEL W BEAM - S FACE A	LF	0
02360	GUARDRAIL TERMINAL SECTION NO 1	EACH	0
02367	GUARDRAIL END CONNECTION TY 1	EACH	0
02373	GUARDRAIL END TREATMENT TYPE 3	EACH	0
02381	REMOVE GUARDRAIL	LF	0
02391	GUARDRAIL END CONNECTION TY 4A	EACH	0
02460	REMOVE TREES OR STUMPS	EACH	0
02575	DITCHING/SHOULDERING	LF	20
02677	ASPHALT PAVE MILLING & TEXTURING	TON	16
06406	SBM ALUM SHEET SIGNS .080 IN	SQFT	0
06407	SBM ALUM SHEET SIGNS .125 IN	SQFT	0
06410	STEEL POST TYPE 1	LF	0
06510	PAVE STRIPING-TEMP PAINT-4 IN	LF	200
06514	PAVE STRIPING -PERM PAINT - 4IN	LF	4000
08100	CONCRETE-CLASS A	CUYD	0
08806	GUARDRAIL - BRIDGE CASE I-A	LF	0
08810	PRECAST CONC BRIDGE RAIL BLOCK	EACH	0
20458E5403	CENTERLINE RUMBLE STRIPS	LF	1915
21373ND	REMOVE SIGN	EACH	1
22400NN	REMOVE AND RELOCATE SIGN ASSEMBLY	EACH	0
24631EC	BARCODE SIGN INVENTORY	EACH	0
	41" HOBAS PIPE	LF	0
	48" HOBAS PIPE	LF	0
	51" HOBAS PIPE	LF	0

DRAWING PROVIDED FOR INFORMATION ONLY. QUANTITIES FOR THIS DRAWING ARE USED TO APPROXIMATE COST ESTIMATES.

0' 100' 200' 400'

SCALE: 1"=300'

KY 1954 (HUSBAND RD)
MP 2.46 TO MP 2.82
STA. 230+00 TO STA. 249+15



SCALE: 1" = 100' HORIZONTAL
1" = 10' VERTICAL

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

KY 1954 (HUSBAND RD)
MP 2.46 TO MP 2.82
STA. 230+00 TO STA. 249+15

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

Item	Description	Unit	Qty
00001	DGA BASE	TON	216
00003	CRUSHED STONE BASE	TON	1103
00020	TRAFFIC BOUND BASE	TON	0
00100	ASPHALT SEAL AGGREGATE	TON	67.6
00103	ASPHALT SEAL COAT	TON	7.66
00212	CL2 ASPH BASE 1.00D PG64-22	TON	1649
00301	CL2 ASPH SURF 0.38D PG64-22	TON	245
00440	ENTRANCE PIPE - 15 IN	LF	0
00441	ENTRANCE PIPE - 18 IN	LF	0
00462	CULVERT PIPE - 18 IN	LF	155
00464	CULVERT PIPE - 24 IN	LF	105
00466	CULVERT PIPE - 30 IN	LF	0
00468	CULVERT PIPE - 36 IN	LF	0
00472	CULVERT PIPE - 60 IN	LF	126
01310	REMOVE PIPE	LF	248
24575ES610	HEADWALL (SLOPED & MITERED-18IN PIPE)	EACH	2
24575ES610	HEADWALL (SLOPED & MITERED-24IN PIPE)	EACH	1
01393	METAL END SECTION TY3 - 24 IN	EACH	0
24575ES610	HEADWALL (SLOPED & MITERED-30IN PIPE)	EACH	0
24575ES610	HEADWALL (SLOPED & MITERED-36IN PIPE)	EACH	0
01729	SAFETY BOX INLET - 24 IN DBL SDB-5	EACH	0
01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	EACH	16
02230	EMBANKMENT IN PLACE	CUYD	12251
02233	SPECIAL EMBANKMENT	CUYD	20373
02351	GUARDRAIL - STEEL W BEAM- S FACE	LF	1038
02355	GUARDRAIL - STEEL W BEAM- S FACE A	LF	0
02360	GUARDRAIL TERMINAL SECTION NO 1	EACH	1
02367	GUARDRAIL END CONNECTION TY 1	EACH	0
02373	GUARDRAIL END TREATMENT TYPE 3	EACH	1
02381	REMOVE GUARDRAIL	LF	1812.5
02391	GUARDRAIL END CONNECTION TY 4A	EACH	4
02460	REMOVE TREES OR STUMPS	EACH	0
02575	DITCHING/SHOULDERING	LF	0
02677	ASPHALT PAVE MILLING & TEXTURING	TON	15
06406	SBM ALUM SHEET SIGNS .080 IN	SQFT	28
06407	SBM ALUM SHEET SIGNS .125 IN	SQFT	8
06410	STEEL POST TYPE 1	LF	49
06510	PAVE STRIPING-TEMP PAINT-4 IN	LF	2880
06514	PAVE STRIPING -PERM.PAINT - 4IN	LF	5060
08100	CONCRETE-CLASS A	CUYD	33.8
08806	GUARDRAIL - BRIDGE CASE I-A	LF	0
08810	PRECAST CONC BRIDGE RAIL BLOCK	EACH	0
2045ES403	CENTERLINE RUMBLE STRIPS	LF	1150
21373ND	REMOVE SIGN	EACH	16
22400NN	REMOVE AND RELOCATE SIGN ASSEMBLY	EACH	0
24631EC	BARCODE SIGN INVENTORY	EACH	9
	41" HOBAS PIPE	LF	250
	48" HOBAS PIPE	LF	250
	51" HOBAS PIPE	LF	125

ENTRANCE CONSTRUCTION KY 1954 LT.					
STATION	WIDTH	TYPE	PIPE LNG.	PIPE SIZE	SURFACE TYPE
253+51.4	10'	FIELD	--	--	GRASS

REMOVE PIPE		
STATION	TYPE	LF
257+07	72" RCP	62'
257+17	96" CMP	62'
257+25	48" RCP	62'
257+33	36" RCP	62'

CONSTRUCT STEEL W-BEAM GUARDRAIL LT. (SINGLE FACE)						
BEGIN STATION	TERM. SEC.	END TREAT.	END STATION	TERM. SEC.	END TREAT.	LF
255+00	--	4A	259+50	--	4A	375

REMOVE GUARDRAIL LT.		
BEGIN STA.	END STA.	LF
250+06	251+88	300'
252+30	253+44	125'
253+96	259+80	662.5'

BEGIN CONST.
CLARK LINE RD.
STA. 47+00

CLARK LINE ROAD
PI STA 48+12.26
= 29°07'08" RT.
T = 81.55'
L = 159.58'
R = 314.00'
E = 10.42'
e = RC
Runoff = 32.26'
Runout = 32.26'

PI STA 256+74.58
= 26°28'03.31" RT.
T = 138.04'
L = 271.16'
R = 587.00'
E = 16.01'
e = 8.00%
Runoff = 162.96'
Runout = 40.74'

① REMOVE ENTIRE ROADWAY STRUCTURE TO SOIL SUBGRADE & RESTORE TO TOP OF EXISTING LEVEE WITH LEAN CLAY BACKFILL COMPACTED TO 95% OF PROCTOR.

② REMOVE ENTIRE ROADWAY STRUCTURE TO SOIL SUBGRADE & RESTORE LEVEE 3:1 SLOPES WHERE APPLICABLE WITH LEAN CLAY BACKFILL COMPACTED TO 95% OF PROCTOR.

③ KY 1954 STA. 253+51.40 = LEVEE STA. 30+23.50 LAT. 37.005708°N LONG. 88.598292°W

KY 1954 STA. 253+95.00
=CLARK LINE ROAD STA. 50+00.00

KY 1954 BEGIN R/W STA. 249+50

KY 1954 END R/W STA. 259+80

END PROJECT KY 1954 STA. 260+98.00, MP 3.04

MATCHLINE STA. 249+15

CROSSDRAIN					
STATION	SIZE	LF	PIPE TYPE	HEADWALL TYPE	HEADWALL RT/LT
250+95	60"	40'(RT)	CMP	-	-
251+05	60"	40'(RT)	CMP	-	-
251+16	60"	46'(RT)	CMP	-	-
255+92.86	41"	125'(LT)	HOBAS	SPECIAL	LT
256+00.23	41"	125'(LT)	HOBAS	SPECIAL	LT
256+09.14	51"	125'(LT)	HOBAS	SPECIAL	LT
256+18.23	48"	125'(LT)	HOBAS	SPECIAL	LT
256+26.93	48"	125'(LT)	HOBAS	SPECIAL	LT
256+65	24"	105'	RCP	SPECIAL	LT
				SLOPED & MITERED	RT
48+70 CLARK LINE	18"	155'	RCP	SLOPED & MITERED	RT&LT

CONSTRUCT 4" PERM. STRIPING				
BEGIN STA.	END STA.	TYPE	LF	DESCRIPTION
249+15	260+65	YELLOW	2300	CENTER LINE
47+00	49+90	YELLOW	580	CENTER LINE
249+15	253+35	WHITE	420	LT EDGELINE
254+55	260+65	WHITE	610	LT EDGELINE
249+15	260+65	WHITE	1150	RT EDGELINE

REMOVE GUARDRAIL RT.		
BEGIN STA.	END STA.	LF
250+22	252+24	225'
252+59	257+00	500'

ENTRANCE CONSTRUCTION KY 1954 RT.					
STATION	WIDTH	TYPE	PIPE LNG.	PIPE SIZE	SURFACE TYPE
253+51.4	10'	FIELD	--	--	GRASS

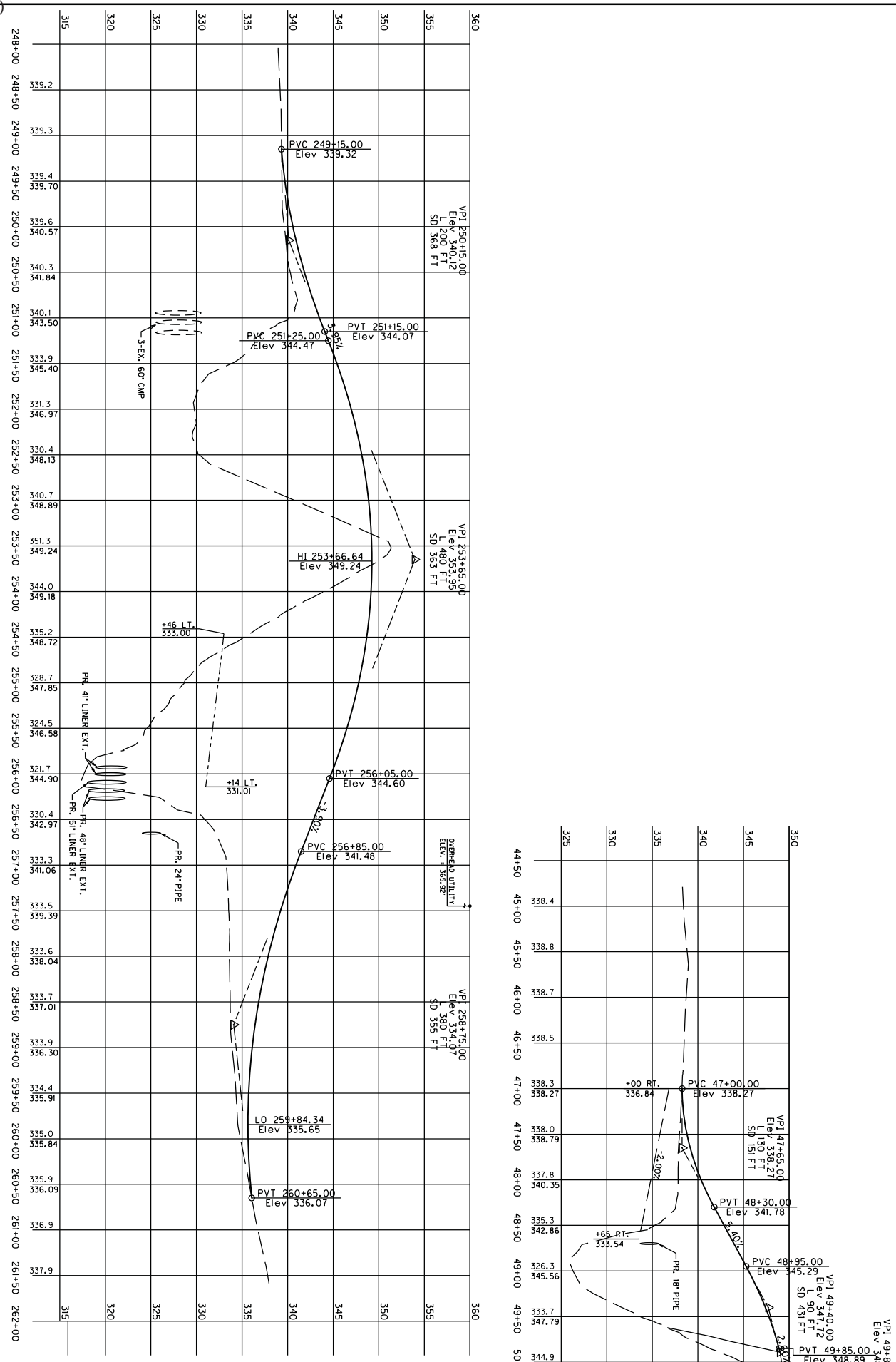
CONSTRUCT STEEL W-BEAM GUARDRAIL RT. (SINGLE FACE)						
BEGIN STATION	TERM. SEC.	END TREAT.	END STATION	TERM. SEC.	END TREAT.	LF
250+47	--	4A	253+72	--	TY. 3	287.5
255+70	--	4A	259+80	1	--	375.0

A	N 10°09'18" E - 23.95'	Q	S 50°32'25" W - 389.79'
B	L = 126.18' R= 280.00' N 2°51'7" W - 125.11'	R	N 37°05'45" E - 175.10'
C	N 50°32'25" E - 110.41'	S	N 36°32'01" E - 147.33'
D	S 20°53'10" W - 234.10'	T	S 58°40'05" E - 9.69'
E	L = 55.66' R= 280.00' N 21°21'32" W - 55.57'	U	S 33°41'03" W - 205.02'
F	N 27°03'13" W - 150.30'	V	S 19°22'48" W - 70.11'
G	L = 5.08' R= 110.00' N 25°43'54" W - 5.08'	W	S 75°52'29" W - 66.64'
H	L = 107.44' R= 110.00' N 3°34'18" E - 103.22'	X	N 61°14'22" W - 28.91'
I	S 2°10'17" E - 70.36'	Y	N 40°41'08" E - 50.89'
J	S 50°32'25" W - 123.54'	Z	S 65°50'40" E - 26.08'
K	NOT USED	AA	S 37°05'45" W - 49.18'
L	L = 27.02' R= 110.00' N 38°35'25" E - 26.95	BB	L = 3.27' R= 1175.00' S 37°10'32" W - 3.27'
M	N 45°37'40" E - 55.78'	CC	N 38°24'21" W - 30.34'
N	L = 181.67' R= 1220.00' N 41°21'43" E - 181.50'	DD	N 40°41'08" E - 21.17'
O	N 37°05'45" E - 31.18'	EE	S 61°14'22" E - 28.91'
P	N 75°52'29" E - 108.81'	FF	L = 32.92' R= 1175.00' S 38°03'28" W - 32.91'

SCALE: 1"=150'

0' 50' 100' 200'

KY 1954 REALIGNMENT
AT CLARK LINE ROAD
STA. 249+15 TO STA. 260+98



SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

KY 1954 STA. 249+15 TO STA. 260+98
& CLARK LINE ROAD
PROFILE SHEET

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

RIGHT OF WAY SUMMARY

PARCEL NO.	OWNER(S)	TOTAL AREA OF TRACT		PERMANENT R/W ACQUIRED		EASEMENTS		AREA SEVERED				EXCESS PURCHASED		PORTION REMAINING		SEWER SYSTEM TYPE	SEWER SYSTEM AFFECTED BY PROJECT		BUILDINGS ACQUIRED NUMBER				SOURCE OF TITLE	REMARKS*
								LEFT		RIGHT														
		ACRES	SQ. FT.	ACRES	SQ. FT.	PERMANENT SQ. FT.	TEMPORARY SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.		YES	NO	C	R	F	S		
1	NOT USED																							
2	NOT USED																							
3	NOT USED																							
4	NOT USED																							
5	NOT USED																							
6	NOT USED																							
7	WILFORD E & SUSAN J LAMKINS	54.750			13631		4171			54.437				54.437		5							DB 661 PG 24	
8	CITY OF PADUCAH					69737	46469																DB 200 PG 41	FLOODWALL
																							DB 200 PG 53	
																							DB 200 PG 141	
9	NOT USED																							
10	NOT USED																							
11	KIM BAKEHOUSE	1.311					1790							1.311		3		X					DB 1320 PG 595	
12	NOT USED																							
13	JAMES A & JANA COLE	1.923				787	8756							1.923		5							DB 688 PG 173	
14	JACKSON PURCHASE RURAL ELECTRIC COOPERATIVE CORPORATION	17.218				1386	6557							17.218		5								
15	NOT USED																							
16	BELLNO, LLC.	2.076			6189		4301			1.979				1.934		2		X					DB 1096 PG 730	

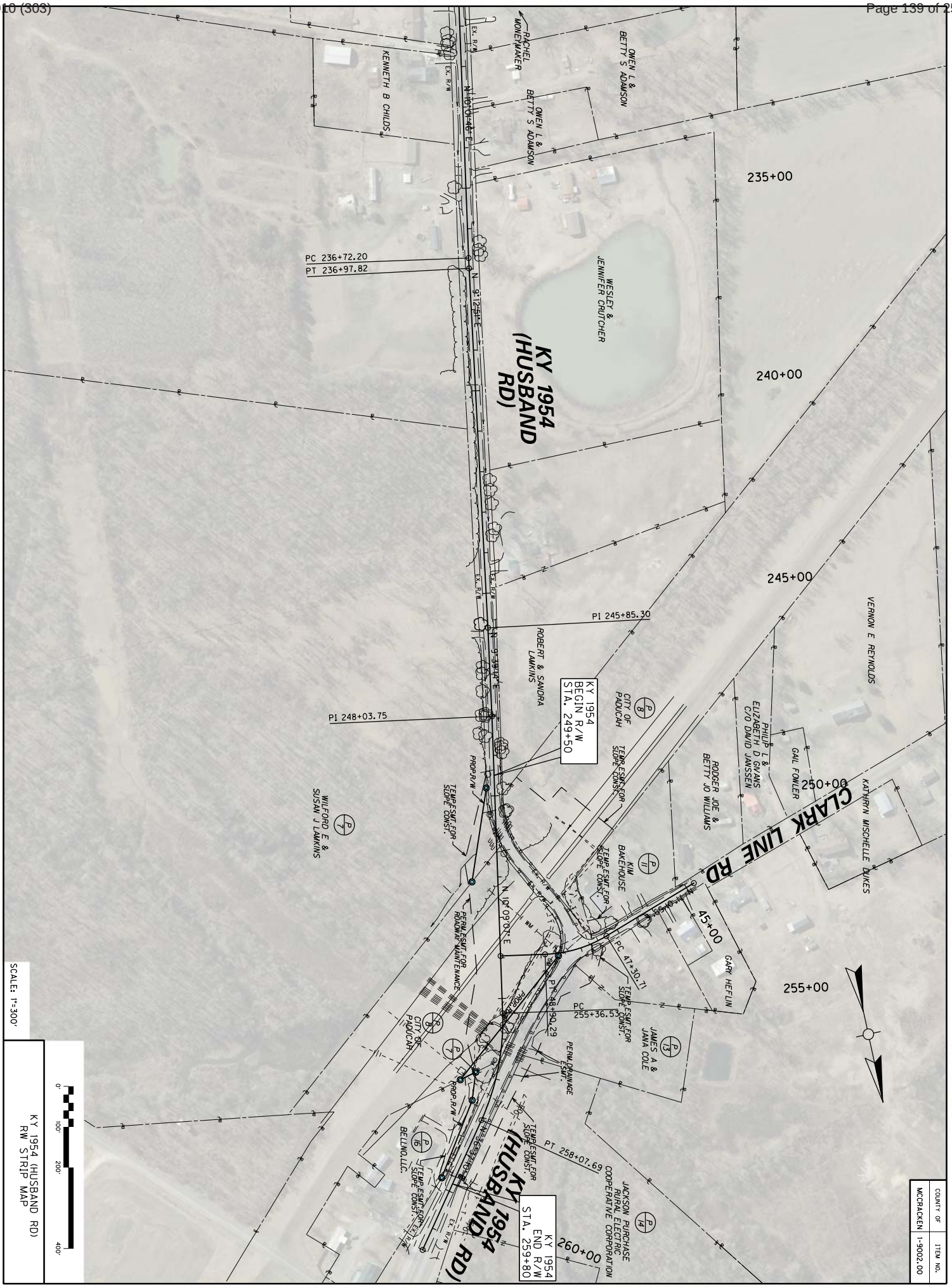
NOTE: PERMANENT R/W ACQUIRED + AREA SEVERED = TOTAL AREA OF TRACT.

TYPE SEWER SYSTEM
1. PRIVATE - INDIVIDUAL
2. PRIVATE - MULTI PARTY
3. PUBLIC
4. NONE
5. NOT APPLICABLE

BUILDINGS ACQUIRED CODE
C - COMMERICAL
R - RESIDENTIAL
F - FARM
S - STORAGE

*INCLUDES HAZARDOUS WASTE (UST - UNDERGROUND STORAGE TANKS)

RIGHT OF WAY SUMMARY SHEET
KY 1954 @ CLARK LINE RD.


KY 1954 (HUSBAND RD)
CLARK LINE RD
KENNETH B CHILDS
RACHEL MONEYMAKER
OWEN L & BETTY S ADAMSON
WESLEY & JENNIFER CRUTCHER
ROBERT & SANDRA LAWKINS
WILFORD E & SUSAN J LAWKINS
CITY OF PADUCAH
PHILIP L & ELIZABETH D GIVANS C/O DAVID JANSSEN
GAIL FOWLER
ROGER JOE & BETTY JO WILLIAMS
KIM BAKEHOUSE
GARY HEFLIN
JAMES A & JANA COLE
JACKSON PURCHASE RURAL ELECTRIC COOPERATIVE CORPORATION
BELLNO,LLC.
VERNON E REYNOLDS
KATHRYN MISCHELLE DUKES
KY 1954 BEGIN R/W STA. 249+50
KY 1954 END R/W STA. 259+80
PC 236+72.20
PT 236+97.82
PI 245+85.30
PI 248+03.75
PC 255+36.53
PT 258+90.29
PC 47+30.71
PT 258+07.69
235+00
240+00
245+00
250+00
255+00
260+00
45+00
PROP.R/W
EX. R/W
TEMP.ESMT.FOR SLOPE CONST.
PERM.ESMT.FOR ROADWAY MAINTENANCE
PERM.DRAINAGE ESMT.
SCALE: 1"=300'
KY 1954 (HUSBAND RD) RW STRIP MAP
0'
100'
200'
400'
COUNTY OF
MCCRACKEN
ITEM NO.
1-9002.00

COORDINATE CONTROL POINTS

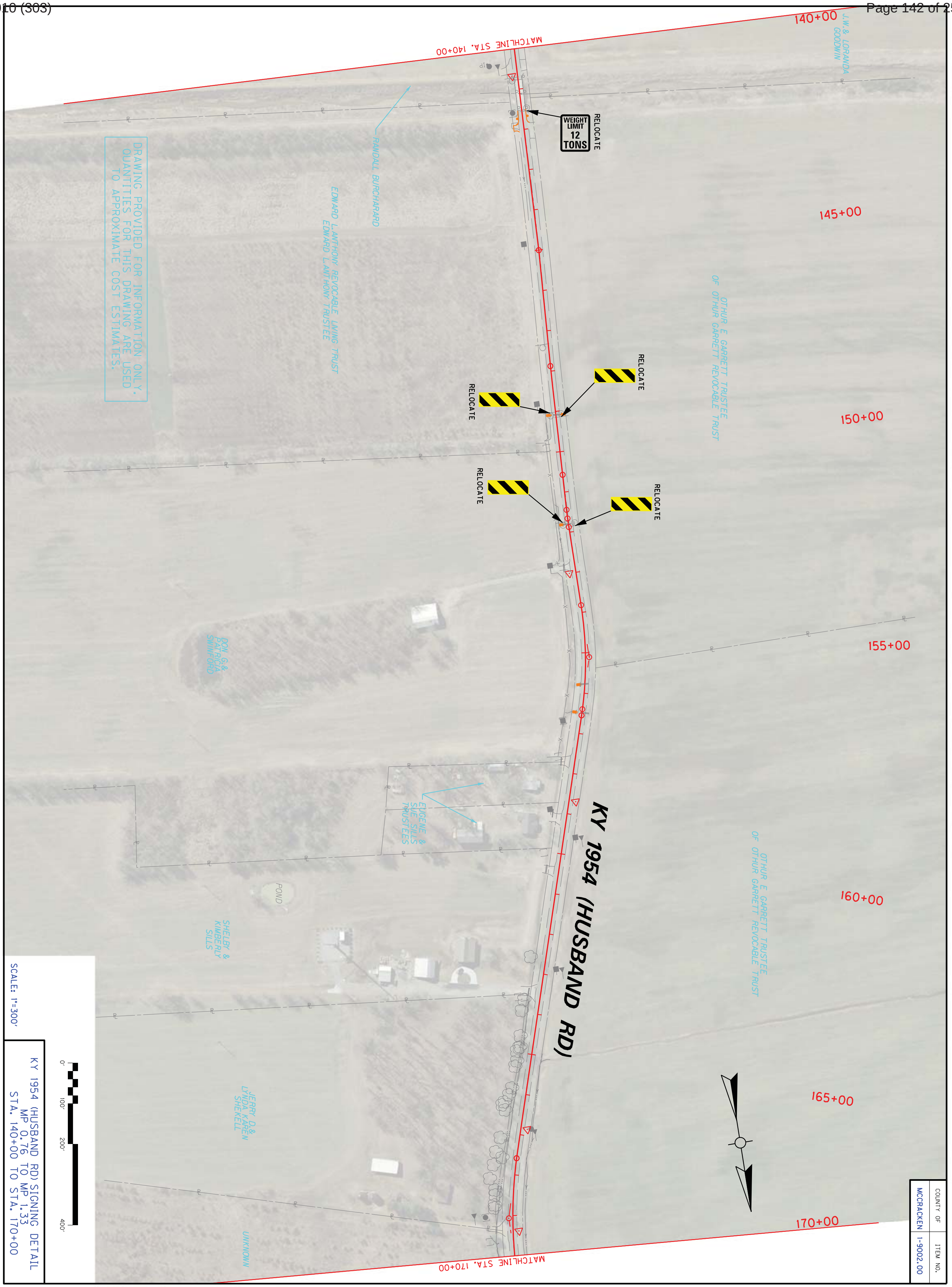
Point	Description	Description			Station	Offset
		North (Y)	East (X)	Elev. (Z)		
POB	KY 1954	3523351.104	4088389.178		98 + 91.47	
PI	KY 1954	3523392.14	4088393.8		99 + 32.77	
PC	KY 1954	3523661.856	4088432.16		102 + 05.20	
PI	KY 1954	3523890.55	4088464.685		104 + 36.19	
PT	KY 1954	3524120.137	4088490.153		106 + 67.15	
PI	KY 1954	3524191.386	4088498.056		107 + 38.84	
PI	KY 1954	3524496.272	4088536.241		110 + 46.10	
PC	KY 1954	3525004.306	4088595.643		115 + 57.60	
PI	KY 1954	3525385.09	4088637.876		119 + 40.72	
PT	KY 1954	3525760.264	4088715.494		123 + 23.28	
PC	KY 1954	3525760.288	4088715.498		123 + 23.30	
PI	KY 1954	3526036.336	4088762.327		126 + 03.29	
PT	KY 1954	3526315.813	4088779.284		128 + 82.75	
PI	KY 1954	3526315.921	4088779.291		128 + 82.85	
PI	KY 1954	3527417.999	4088827.947		139 + 86.01	
PI	KY 1954	3527932.02	4088846.367		145 + 00.36	
PI	KY 1954	3528218.679	4088862.922		147 + 87.49	
PI	KY 1954	3528488.227	4088875.107		150 + 57.32	
PC	KY 1954	3528575.083	4088879.033		151 + 44.26	
PI	KY 1954	3528596.499	4088880.001		151 + 65.70	
PT	KY 1954	3528617.936	4088880.051		151 + 87.13	
PC	KY 1954	3528812.881	4088880.501		153 + 82.08	
PI	KY 1954	3528942.494	4088880.8		155 + 11.69	
PT	KY 1954	3529066.756	4088917.661		156 + 39.53	
PI	KY 1954	3529081.454	4088922.02		156 + 54.86	
PI	KY 1954	3530134.823	4089251.345		167 + 58.51	
PC	KY 1954	3530134.915	4089251.372		167 + 58.61	
PI	KY 1954	3530278.124	4089293.447		169 + 07.87	
PT	KY 1954	3530427.371	4089295.51		170 + 55.29	
PI	KY 1954	3530948.544	4089302.715		175 + 76.51	
PC	KY 1954	3531468.412	4089311.064		180 + 96.45	
PI	KY 1954	3531586.577	4089312.962		182 + 14.63	
PT	KY 1954	3531704.226	4089324.149		183 + 32.69	
PC	KY 1954	3532077.843	4089359.676		187 + 07.99	
PI	KY 1954	3532262.944	4089377.277		188 + 93.92	
PT	KY 1954	3532448.368	4089391.051		190 + 79.85	

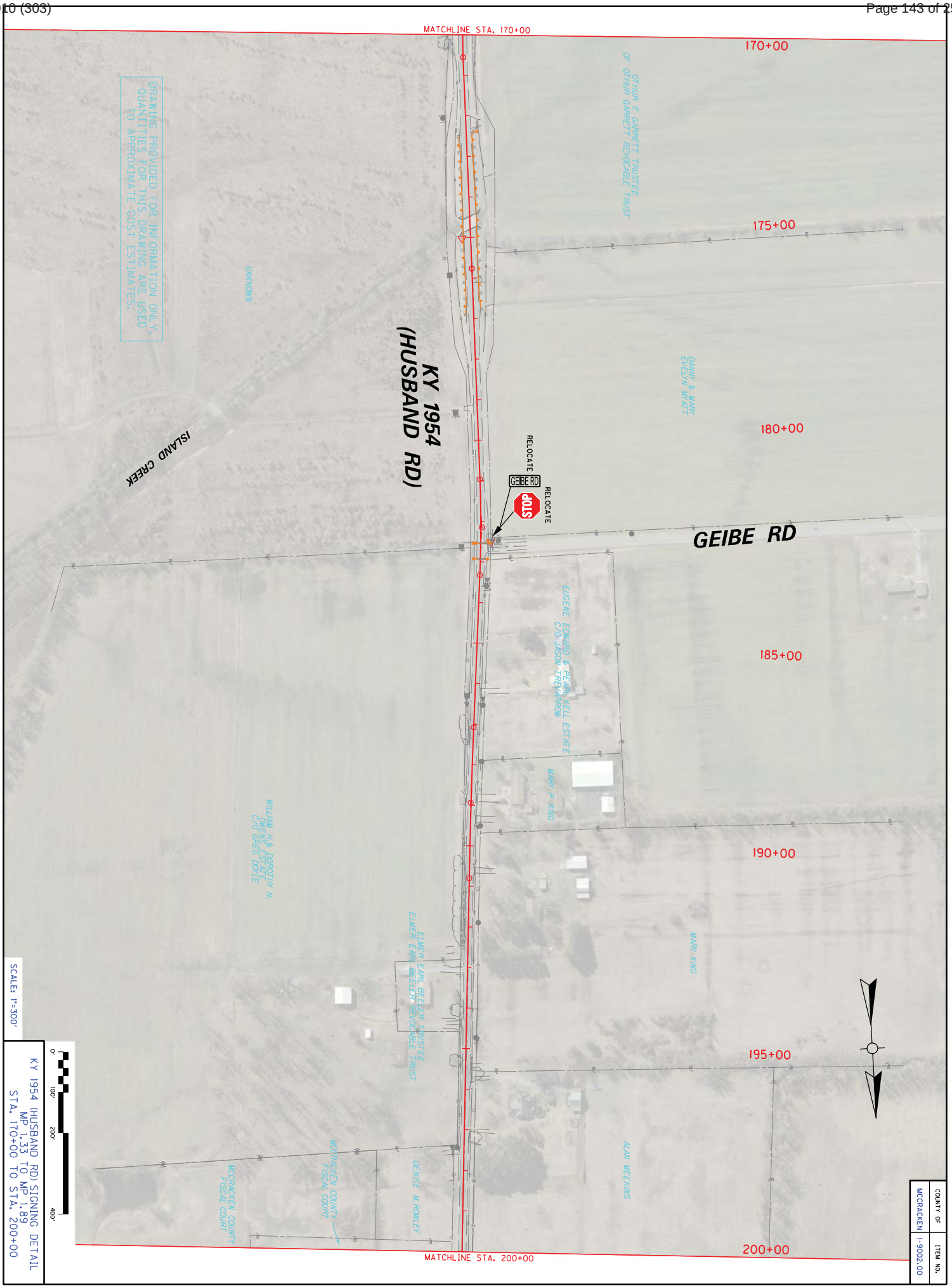
COORDINATE CONTROL POINTS

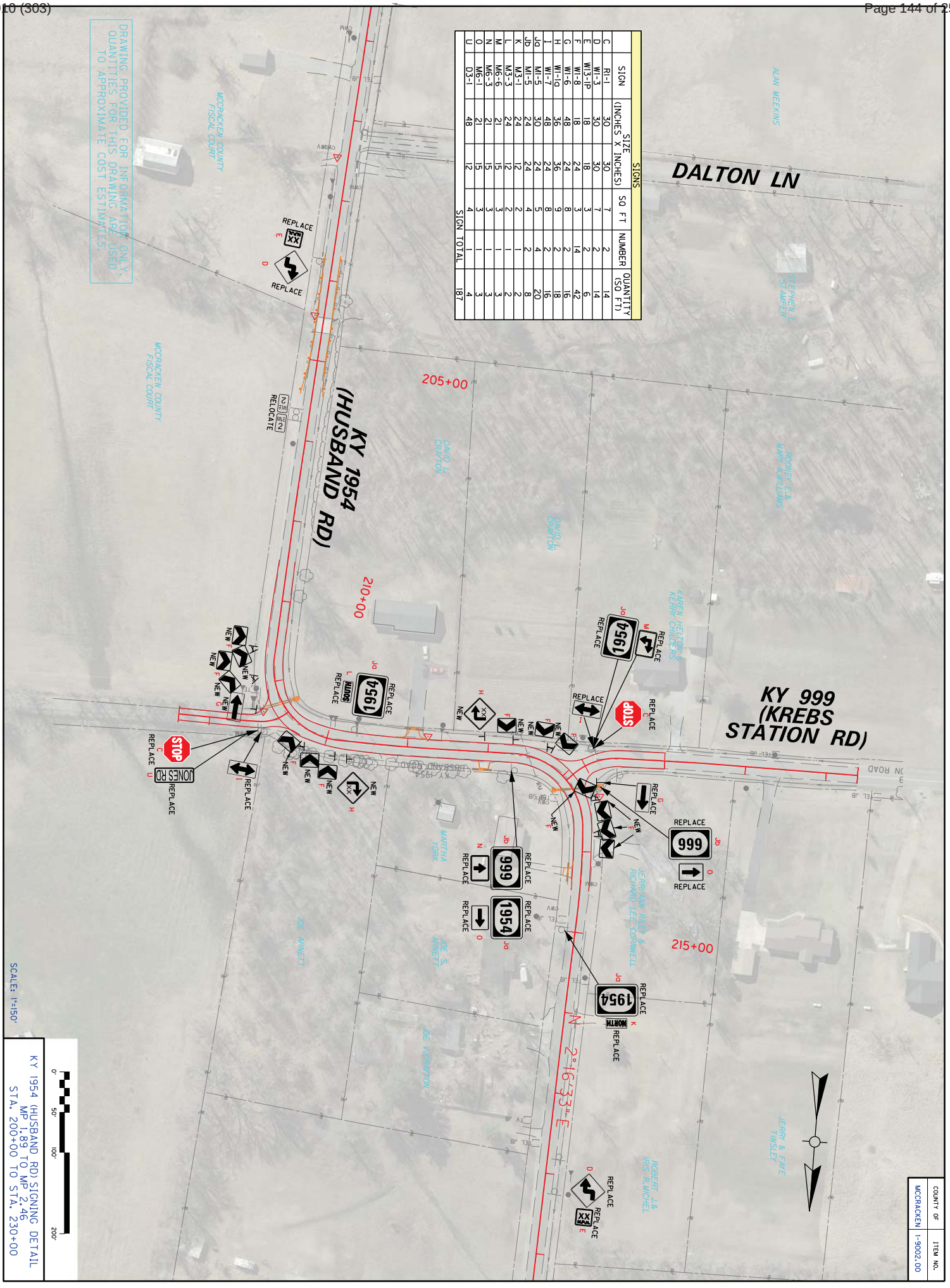
Point	Description	Description			Station	Offset
		North (Y)	East (X)	Elev. (Z)		
PI	KY 1954	3533494.146	4089468.733		201 + 28.50	
PI	KY 1954	3534046.132	4089508.84		206 + 81.95	
PC	KY 1954	3534234.784	4089520.118		208 + 70.93	
PI	KY 1954	3534327.839	4089525.68		209 + 64.16	
PT	KY 1954	3534330.128	4089432.487		210 + 15.47	
PC	KY 1954	3534331.048	4089394.987		210 + 52.98	
PI	KY 1954	3534332.288	4089344.493		211 + 03.49	
PT	KY 1954	3534331.214	4089293.995		211 + 53.98	
PC	KY 1954	3534329.549	4089215.749		212 + 32.25	
PI	KY 1954	3534327.709	4089129.276		213 + 18.74	
PT	KY 1954	3534414.04	4089124.002		213 + 70.04	
PC	KY 1954	3534425.102	4089123.326		213 + 81.12	
PI	KY 1954	3534475.054	4089120.274		214 + 31.17	
PT	KY 1954	3534525.037	4089122.779		214 + 81.11	
PI	KY 1954	3534632.915	4089128.186		215 + 89.13	
PI	KY 1954	3535143.68	4089148.485		221 + 00.29	
PC	KY 1954	3535428.417	4089152.919		223 + 85.07	
PI	KY 1954	3535588.215	4089155.407		225 + 44.88	
PT	KY 1954	3535745.589	4089183.24		227 + 04.02	
PC	KY 1954	3536698.97	4089351.852		236 + 72.20	
PI	KY 1954	3536711.583	4089354.083		236 + 85.01	
PT	KY 1954	3536724.227	4089356.134		236 + 97.82	
PI	KY 1954	3537600.256	4089498.24		245 + 85.30	
PI	KY 1954	3537815.612	4089534.873		248 + 03.75	
PC	KY 1954	3538536.924	4089664.033		255 + 36.53	
PI	KY 1954	3538672.807	4089688.364		256 + 74.58	
PT	KY 1954	3538783.604	4089770.708		258 + 07.69	
POE	KY 1954	3539065.313	4089980.072		261 + 58.68	
POB	CLARK LINE ROAD	3538322.891	4089135.324		44 + 78.66	
PC	CLARK LINE ROAD	3538404.813	4089373.69		47 + 30.71	
PI	CLARK LINE ROAD	3538431.32	4089450.816		48 + 12.26	
PT	CLARK LINE ROAD	3538416.946	4089531.093		48 + 90.29	
POE	CLARK LINE ROAD	3538397.608	4089639.087		50 + 00.00	

RIGHT OF WAY MONUMENT POINTS

Alignment	Station	Offset	Type	Description	State Plane Coordinates	
					North (Y)	East (X)
KY 1954	249+80.00	20.00' RT	1	RW MONUMENT	3537985.58	4089585.625
KY 1954	252+10.00	63.60' RT	1	RW MONUMENT	3538204.294	4089669.082
KY 1954	253+99.64	142.68' LT	1	RW MONUMENT	3538427.324	4089499.462
KY 1954	256+95.00	52.08' RT	1	RW MONUMENT	3538664.757	4089759.513
KY 1954	257+26.46	83.78' RT	1	RW MONUMENT	3538675.048	4089800.406
KY 1954	257+70.00	40.00' RT	1	RW MONUMENT	3538730.899	4089782.78
KY 1954	259+77.34	30.63' RT	1	RW MONUMENT	3538901.498	4089896.487


MATCHLINE STA. 140+00
140+00
145+00
150+00
155+00
160+00
165+00
170+00
MATCHLINE STA. 170+00
WEIGHT LIMIT 12 TONS
RELOCATE
RELOCATE
RELOCATE
RELOCATE
RELOCATE
KY 1954 (HUSBAND RD)
DRAWING PROVIDED FOR INFORMATION ONLY. QUANTITIES FOR THIS DRAWING ARE USED TO APPROXIMATE COST ESTIMATES.
J.W.& LORANDA GOODWIN
RANDALL BURCHARARD
EDWARD L ANTHONY REVOCABLE LIVING TRUST EDWARD L ANTHONY TRUSTEE
OTHUR E. GARRETT TRUSTEE OF OTHUR GARRETT REVOCABLE TRUST
EUGENE & SUE SILLS TRUSTEES
POND
SHELBY & KIMBERLY SILLS
JERRY D.& LYNDA KAREN SHEKELL
UNKNOWN
SCALE: 1"=300'
0' 100' 200' 400'
KY 1954 (HUSBAND RD) SIGNING DETAIL
MP 0.76 TO MP 1.33
STA. 140+00 TO STA. 170+00
COUNTY OF MCCRACKEN
ITEM NO. 1-9002.00


MATCHLINE STA. 170+00
170+00
175+00
180+00
185+00
190+00
195+00
200+00
MATCHLINE STA. 200+00
KY 1954
(HUSBAND RD)
GEIBE RD
RELOCATE
GEIBE RD
STOP
RELOCATE
ISLAND CREEK
UNKNOWN
DRAWING PROVIDED FOR INFORMATION ONLY.
QUANTITIES FOR THIS DRAWING ARE USED
TO APPROXIMATE COST ESTIMATES.
OTHUR E. GARRETT TRUSTEE
OF OTHUR GARRETT REVOCABLE TRUST
DANNY & MARY
EVELYN MYATT
EUGENE EDWARD & PEARL KELL ESTATE
C/O JASON TREVARROW
MARY P. KING
WILLIAM H & DOROTHY N.
OWENS ESTATE
C/O GREG DOYLE
ELMER EARL BEELER TRUSTEE
ELMER EARL BEELER REVOCABLE TRUST
MARY KING
ALAN WEEKINS
DENISE M.ROWLEY
MCCRACKEN COUNTY
FISCAL COURT
MCCRACKEN COUNTY
FISCAL COURT
SCALE: 1"=300'
0'
100'
200'
400'
KY 1954 (HUSBAND RD) SIGNING DETAIL
MP 1.33 TO MP 1.89
STA. 170+00 TO STA. 200+00
COUNTY OF
MCCRACKEN
ITEM NO.
1-9602.00


SIGNS
SIGN | SIZE (INCHES X INCHES) | SQ FT | NUMBER | QUANTITY (SQ FT)
C R1-1 30 30 7 2 14
D W1-3 30 30 7 2 14
E W13-1P 18 18 3 2 6
F W1-8 18 18 3 14 42
G W1-6 48 24 8 2 16
H W1-7 36 36 9 2 18
I W1-10 48 24 8 2 16
Ja M1-5 30 24 5 4 20
Jb M1-5 24 24 4 2 8
K M3-1 24 12 2 1 2
L M3-3 24 12 2 1 2
M M6-6 21 15 3 1 3
N M6-3 21 15 3 1 3
O M6-1 21 15 3 1 3
U D3-1 48 12 4 1 4
SIGN TOTAL 187
DRAWING PROVIDED FOR INFORMATION ONLY. QUANTITIES FOR THIS DRAWING ARE USED TO APPROXIMATE COST ESTIMATES.
DALTON LN
KY 1954 (HUSBAND RD)
KY 999 (KREBS STATION RD)
JONES RD
205+00
210+00
215+00
N 2°16'33" E
REPLACE
NEW
RELOCATE
STOP
NORTH
SOUTH
MCCRACKEN COUNTY FISCAL COURT
ALAN MEEKINS
STEPHEN L. STAFFER
DAVID L. CRAYTON
RODNEY E. & MARY K. WILLIAMS
KAREN HELTON & KERRY CHILDERS
MARTHA YORK
JERRIANN RILEY & RICHARD LEE CORNELL
JOE ARNETT
JOE S. ARNETT
JOE V. CRAYTON
ROBERT J. & IRIS R. MICHEL
JERRY & FAYE TINSLEY
SCALE: 1"=150'
0' 50' 100' 200'
KY 1954 (HUSBAND RD) SIGNING DETAIL
MP 1.89 TO MP 2.46
STA. 200+00 TO STA. 230+00
COUNTY OF MCCRACKEN
ITEM NO. 1-9602.00

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

Description	Unit	Qty
	TON	951
ASE	TON	0
GREGATE	TON	67.6
AT	TON	7.66
00D PG64-22	TON	1821
38D PG64-22	TON	245
15 IN	LF	0
18 IN	LF	0
IN	LF	155
IN	LF	105
IN	LF	0
IN	LF	0
IN	LF	126
	LF	248
ED & MITERED-18IN PIPE)	EACH	2
ED & MITERED-24IN PIPE)	EACH	1
ON TY3 - 24 IN	EACH	0
ED & MITERED-30IN PIPE)	EACH	0
ED & MITERED-36IN PIPE)	EACH	0
- 24 IN DBL SDB-5	EACH	0
GUARDRAIL MONO FE	EACH	16
PLACE	CUYD	12251
MENT	CUYD	20373
L W BEAM-S FACE	LF	1038
L W BEAM-S FACE A	LF	0
NAL SECTION NO 1	EACH	1
CONNECTION TY 1	EACH	0
TREATMENT TYPE 3	EACH	1
AIL	LF	1812.5
CONNECTION TY 4A	EACH	4
R STUMPS	EACH	0
DER RNG	LF	0
	LF	64
LLING & TEXTURING	TON	0
IGNS .080 IN	SQFT	28
IGNS .125 IN	SQFT	8
	LF	61
ERMPAINT - 4IN	LF	5060
A	CUYD	33.8
DGE CASE I-A	LF	0
RIDGE RAIL BLOCK	EACH	0
BLE STRIPS	LF	1150
	EACH	16
LOCATE SIGN ASSEMBLY	EACH	0
NVENTORY	EACH	9
	LF	250
	LF	250
	LF	125
DWALL	EACH	1

SIGNS						
	SIGN	SIZE (INCHES X INCHES)		SQ FT	NUMBER	QUANTITY (SQ FT)
C	R1-1	30	30	7	1	7
E	W13-1P	18	18	3	2	6
Jg	M1-5	30	24	5	1	5
Q	D10-1	10	18	2	2	4
T	W1-2g	30	30	7	1	7
U	D3-1	48	12	4	2	8
V	M2-1	21	15	2	1	2
					SIGN TOTAL	39

DRAWING PROVIDED FOR INFORMATION ONLY. QUANTITIES FOR THIS DRAWING ARE USED TO APPROXIMATE COST ESTIMATES.

CLARK LINE RD

KY 1954 (HUSBAND RD)

KY 1954 (HUSBAND RD)

ISLAND CREEK

LEVEE

250+00

255+00

260+00

REPLACE HUSBAND RD

CLARK LINE RD

STOP

REPLACE

NEW

NEW

REPLACE

KIM BAKEHOUSE

CITY OF PADUCAH

JAMES A & JANA COLE

JACKSON PURCHASE RURAL ELECTRIC COOPERATIVE CORPORATION

CITY OF PADUCAH

WILFORD E & SUSAN J LAMKINS

BELLNO, LLC.

3-EX. 60" CMP

2-EX. 51" & 2-EX. 48" LINER PIPES

2-EX. 41" LINER PIPES

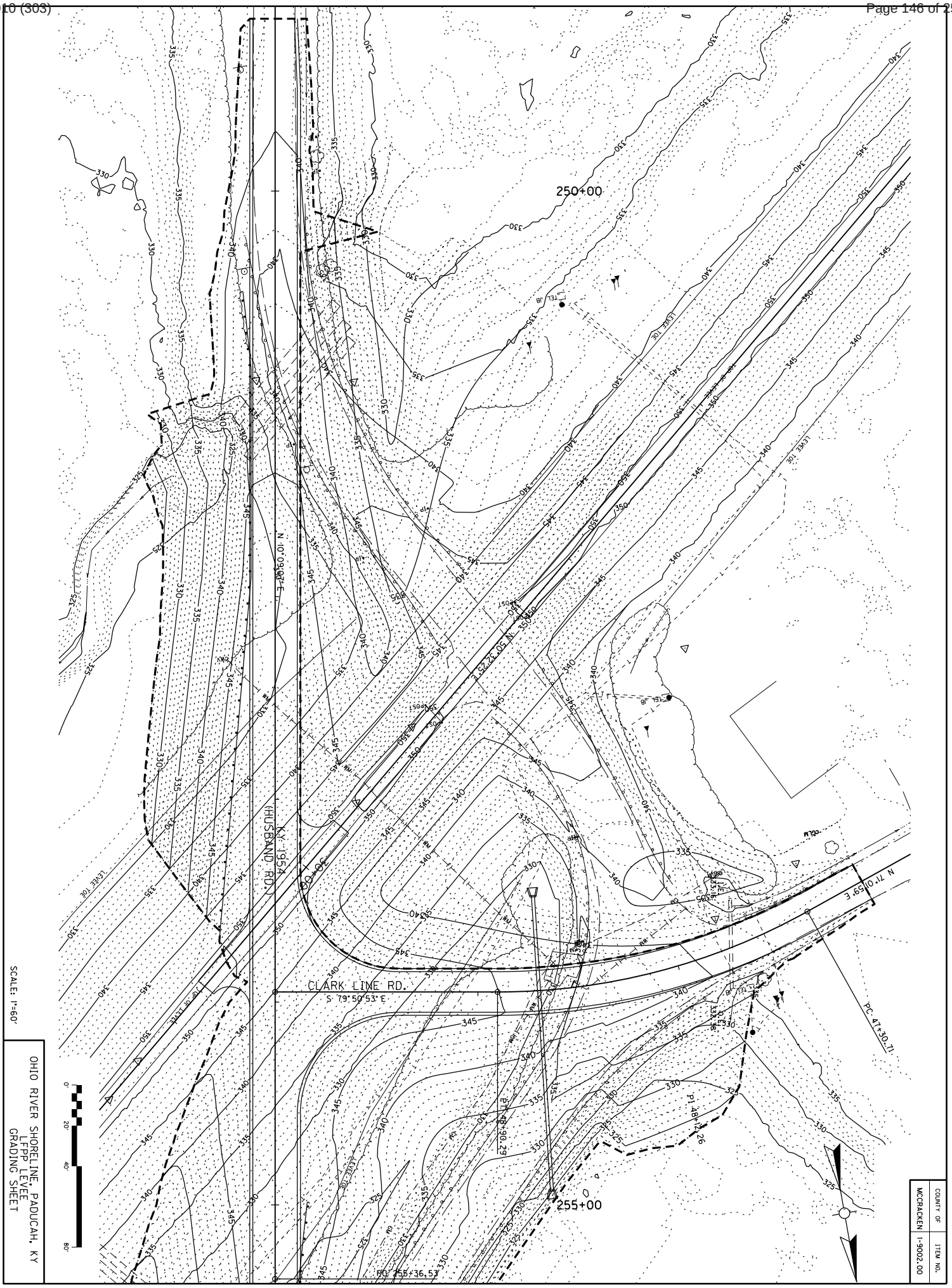
LEVEE TOE

TOP OF LEVEE

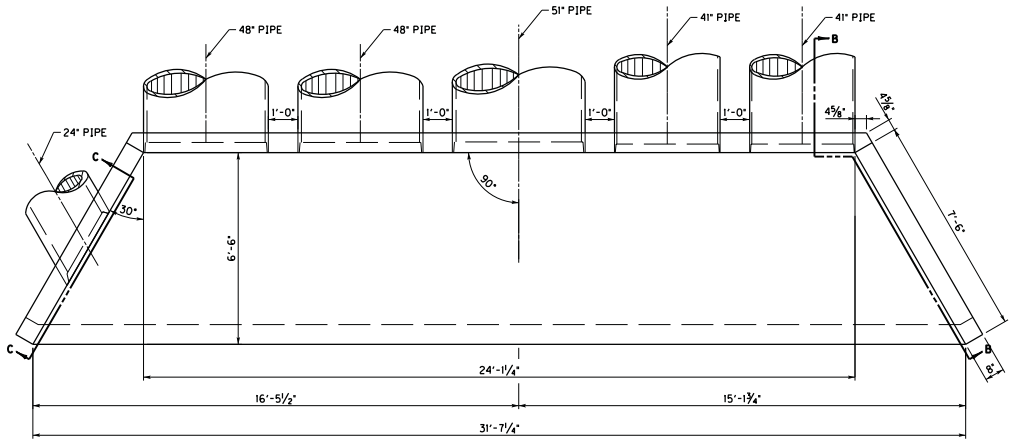
SCALE: 1"=150'

0' 50' 100' 200'

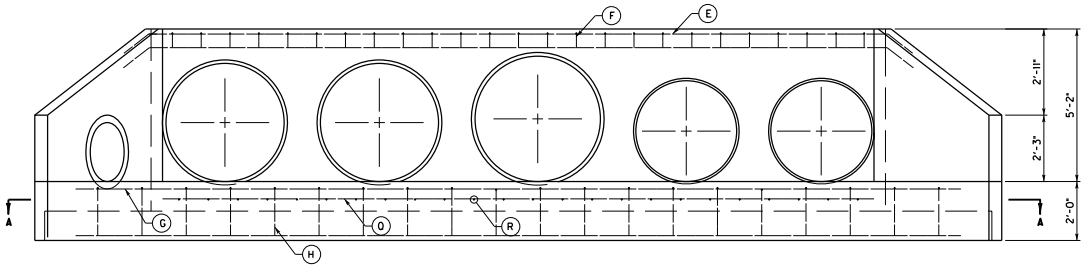
KY 1954 SIGNING DETAIL
MP 2.82 TO MP 3.04
STA. 249+15 TO STA. 260+98


250+00
255+00
CLARK LINE RD.
S 79°50'53" E
KY 1954 (HUSBAND RD.)
N 10°09'07" E
N 77°01'59" E
PC 47+30.71
PI 48+12.26
PT 48+96.26
PC 255+36.52
OHIO RIVER SHORELINE, PADUCAH, KY
LFPP LEVEE
GRADING SHEET
SCALE: 1"=60'
0
20
40
80
COUNTY OF
MCCRACKEN
ITEM NO.
1-9002.00

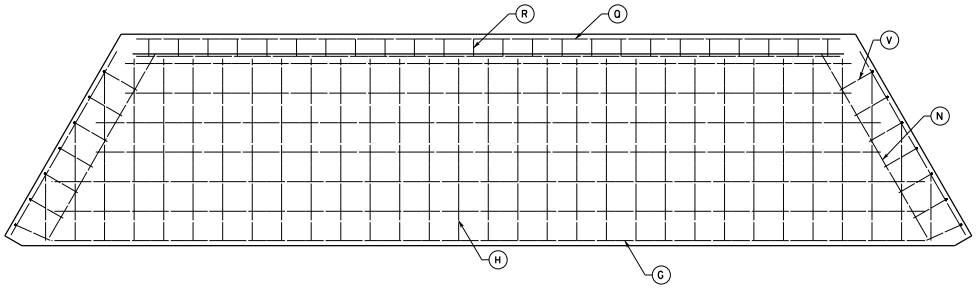
COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00



PLAN VIEW



FRONT ELEVATION

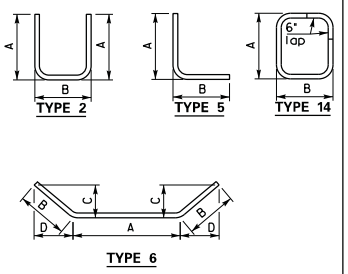


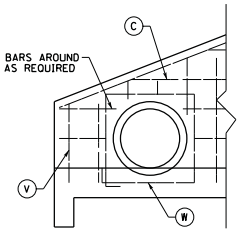
SECTION A–A

BILL OF REINFORCEMENT

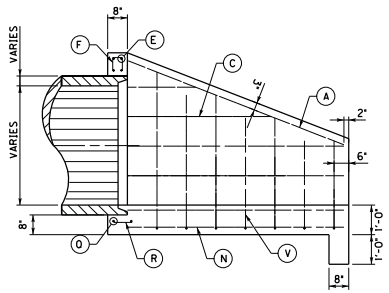
MARK	TYPE	SIZE	NUMBER	LENGTH FT	LENGTH IN	A FT	A IN	B FT	B IN	C FT	C IN	D FT	D IN
A	STR	#5	4	7	10								
C1	STR	#4	4	2	3								
C2	STR	#4	2	4	10								
C3	STR	#4	2	7	2								
E1	6	#5	2	27	4	24	4	1	6	1	3⅝	0	9
E2	6	#5	2	27	8	24	8	1	6	1	3⅝	0	9
F	2	#4	25	1	4	0	6	0	4				
G1	STR	#4	6	24	7								
G2	STR	#4	4	26	7								
G3	STR	#4	4	29	7								
H1	5	#4	2	3	10	2	2	1	8				
H2	5	#4	2	5	7	3	11	1	6				
H3	5	#4	2	7	4	5	8	1	6				
H4	5	#4	25	7	10	6	2	1	8				
N	STR	#4	6	7	2								
O	STR	#4	2	23	10								
R	STR	#4	24	0	8								
V1	5	#5	4	4	2	2	11	1	3				
V2	5	#5	4	4	11	3	8	1	3				
V3	5	#5	4	5	8	4	5	1	3				
V4	5	#5	2	6	6	5	3	1	3				
W	14	#4	1	13	0	3	0	3	0				

BENDING BAR DIAGRAM

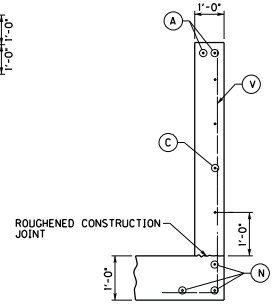




SECTION C–C



SECTION B–B



WING SECTION

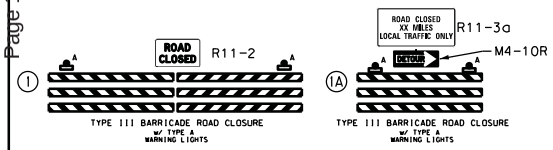
~ NOTES ~

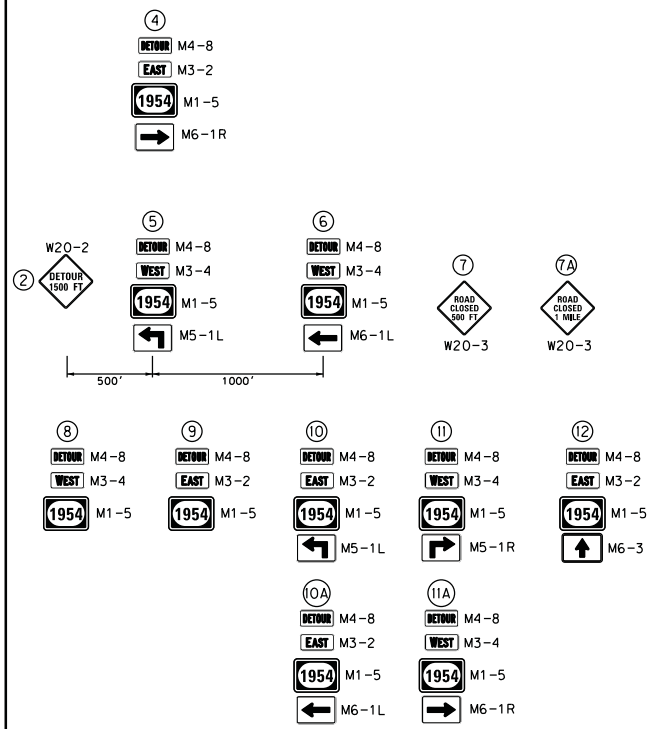
1. ENCIRCLED LETTERS, Ⓐ, INDICATE STEEL BAR LOCATIONS.
2. **BARS Ⓒ, Ⓖ, Ⓥ ARE SPACED 1'-0" O.C. ALL OTHER BARS SHALL** BE EVENLY SPACED.
3. BARS Ⓥ ARE PLACED IN ORDER OF INCREASING LENGTHS, BEGINNING AT THE END OF EACH WING.
4. BARS Ⓒ ARE PLACED IN ORDER OF INCREASING LENGTHS, BEGINNING AT THE TOP OF EACH WING.
5. HEADWALLS LOCATED AT EDGE OF SHOULDER SHALL BE PARALLEL TO CENTERLINE OF THE ROAD.
6. APRON BETWEEN WINGS SHALL BE SLOPED IN DIRECTION OF FLOW EQUAL TO SLOPE OF PIPE. FRONT FACE OF HEADWALL AND ENDS OF WINGS SHALL REMAIN VERTICAL.
7. DIMENSIONS FROM FACE OF CONCRETE TO STEEL SHALL BE 2" CLEAR DISTANCE.

SCALE: 1"=

PIPE CULVERT HEADWALL
LEVEE PIPE EXTENSION

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00





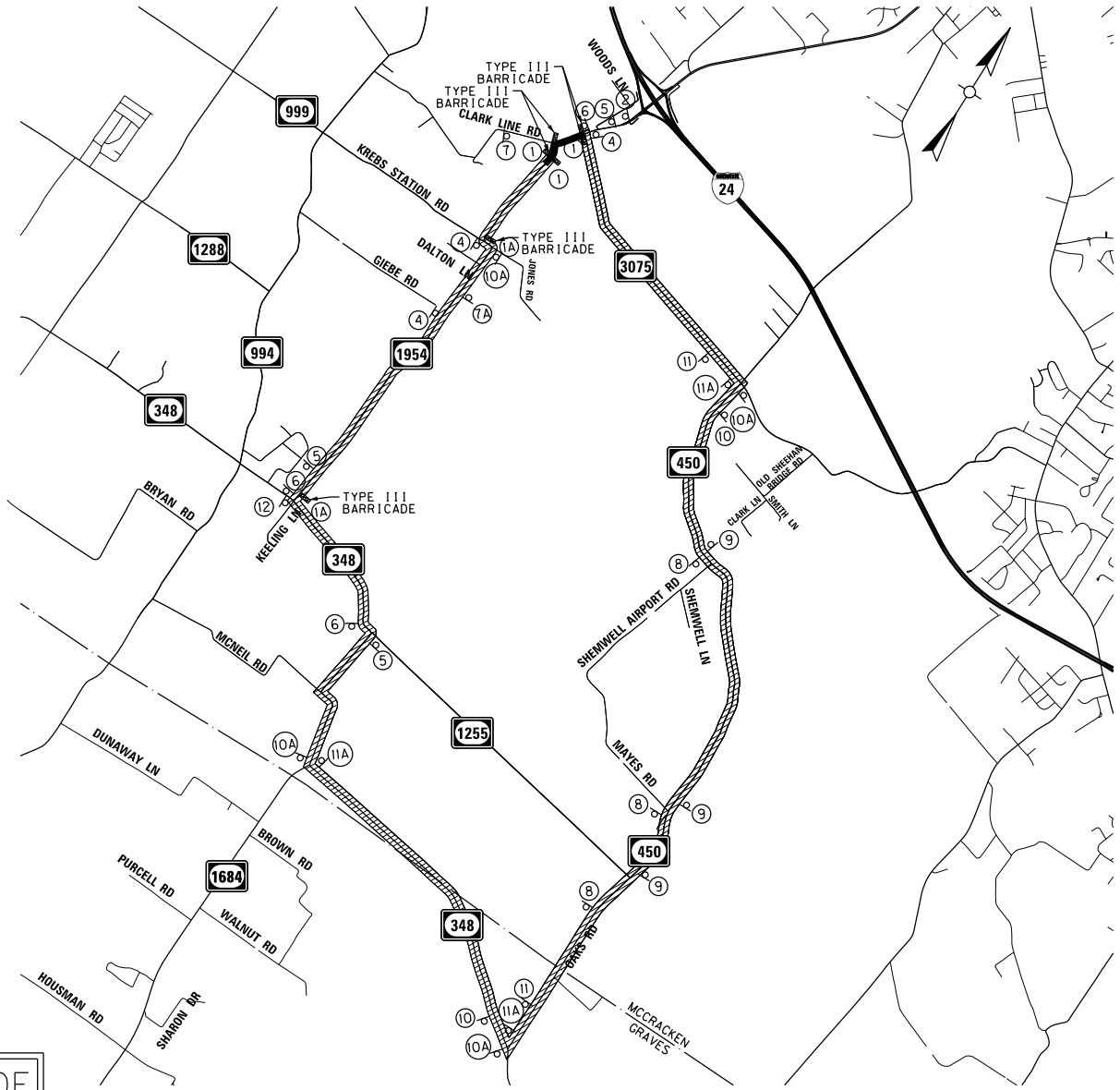
KY 1954 DETOUR					
SIGN	SIZE (INCHES X INCHES)		SQ FT	NUMBER	QUANTITY (SQ FT)
M1-5	24	24	4	27	108
M3-2	24	12	2	13	26
M3-4	24	12	2	14	28
M4-8	24	12	2	27	54
M4-10R	48	18	6	1	6
M5-1R	21	15	2.2	2	4.4
M5-1L	21	15	2.2	5	11
M6-1R	21	15	2.2	6	13.2
M6-1L	21	15	2.2	7	15.4
M6-3	21	15	2.2	1	2.2
R11-2	48	30	10	3	30
R11-3a	60	30	12.5	2	25
W20-2	36	36	9	1	9
W20-3	36	36	9	2	18
KY 1954 DETOUR SIGN TOTAL					350.2

SECTION CLOSED TO THRU TRAFFIC

DETOUR ROUTE

NOTE:
SEE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FIGURE 6H-8 AS GUIDE

FOR MAINTENANCE OF TRAFFIC ONLY

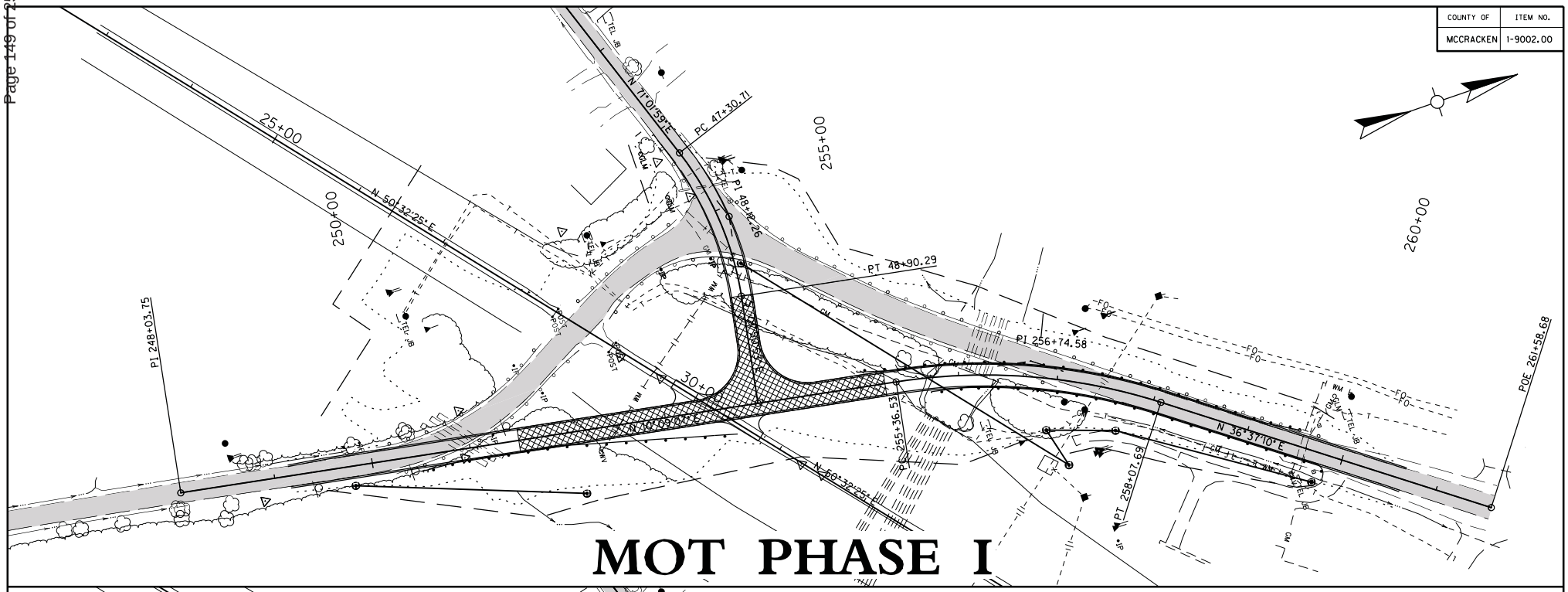


MAXIMUM DETOUR LENGTH: 14.0 MILES

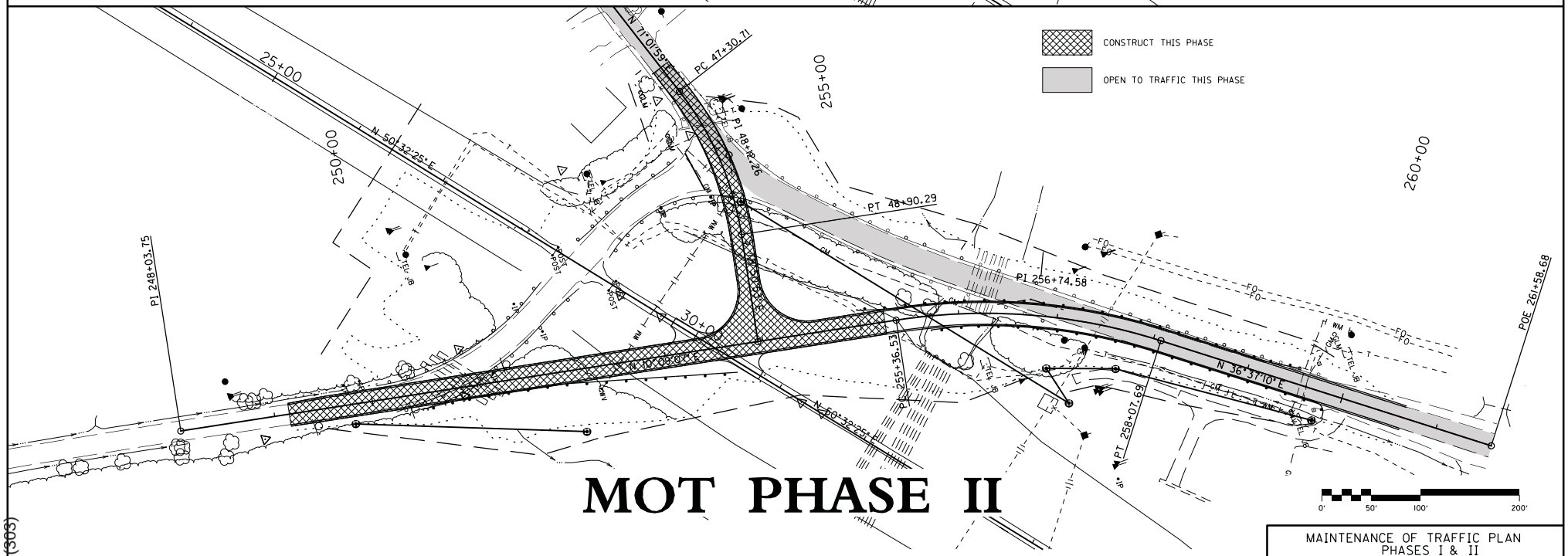
SCALE: 1"=6000'

KY 1954 (HUSBAND RD)
MAINTENANCE OF TRAFFIC
DETOUR SHEET

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00



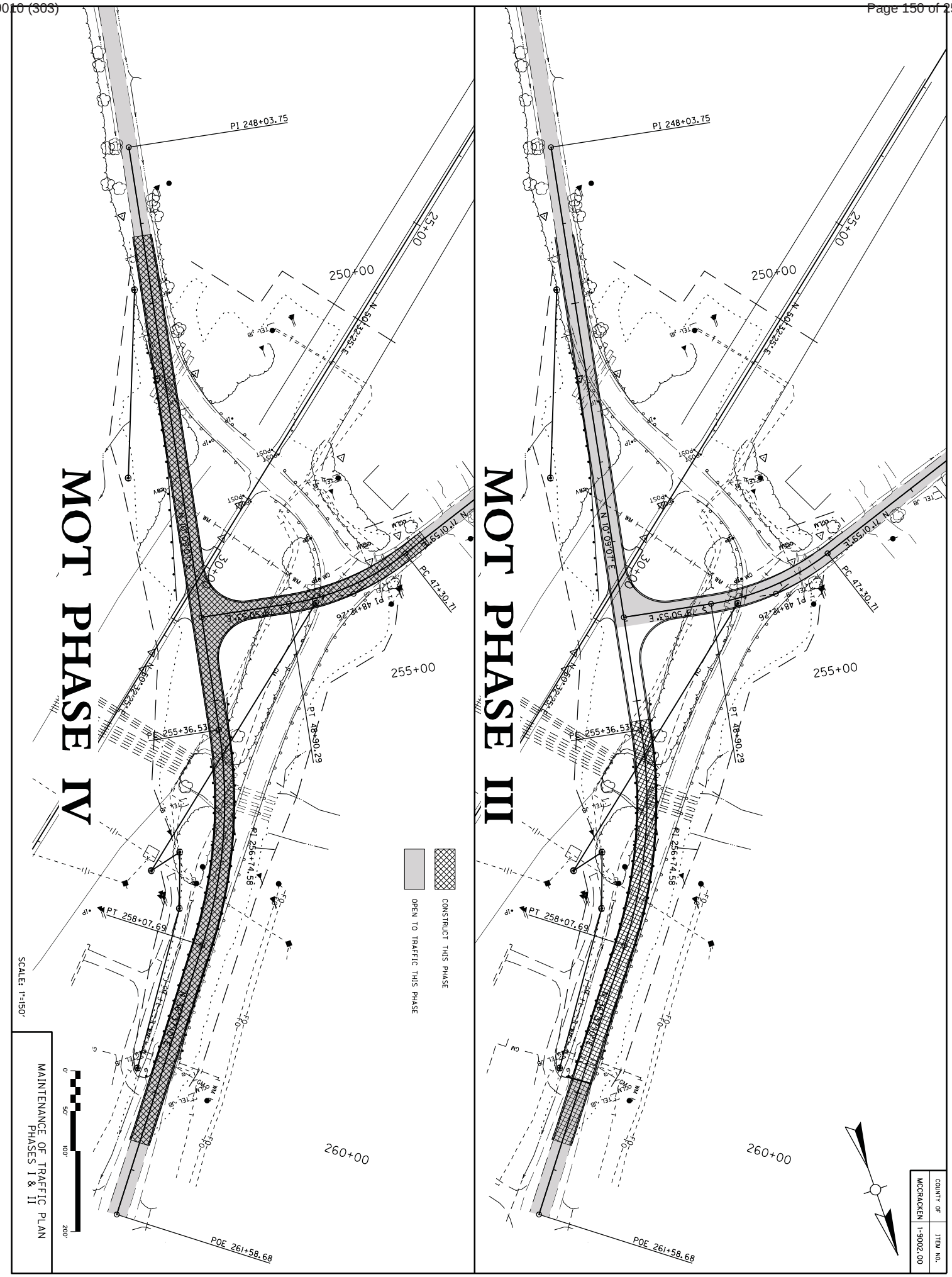
MOT PHASE I



MOT PHASE II

SCALE: 1"=150'

MAINTENANCE OF TRAFFIC PLAN
PHASES I & II


MOT PHASE IV
MOT PHASE III
PI 248+03.75
250+00
255+00
260+00
PC 247+30.71
PI 248+82.26
PT 248+90.29
PI 255+36.53
PI 256+74.58
PT 258+07.69
POE 261+58.68
CONSTRUCT THIS PHASE
OPEN TO TRAFFIC THIS PHASE
SCALE: 1"=150'
MAINTENANCE OF TRAFFIC PLAN
PHASES I & II
COUNTY OF
MCCRACKEN
ITEM NO.
1-9002.00

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

EXISTING HEADWALL REMOVAL TO BE INCIDENTAL TO PIPE EXTENSIONS FOR ALL PIPES

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT

CONST. 30" SLOPED & MITERED

EX. R/W

3.6%

1.6%

30" RCP
2.56%

EX. OE
336.27'

EX. IE
337.00'

PROP. IE
337.02'

CONST. 11 LF 30" RCP EXTENSION

EX. R/W

151+80

CONST. 30" SLOPED & MITERED

EX. R/W

1.8%

2.1%

30" RCP
0.91%

EX. & PROP.
IE 337.36

CONST. 16 LF 30" RCP EXTENSION

EX. & PROP.
OE 337.10'

CONST. 30" SLOPED & MITERED

EX. R/W

149+09

EX. R/W

0.5%

1.3%

8'x3' RCBC
0.15%

NO CONST. PROPOSED

EX. R/W

124+56

EX. R/W

EX. IE
380.48'

30" CMP
8.39%

EX. OE.
377.19'

NO CONST. PROPOSED

EX. R/W

112+33
14° 07' 04" SK. LT.

0

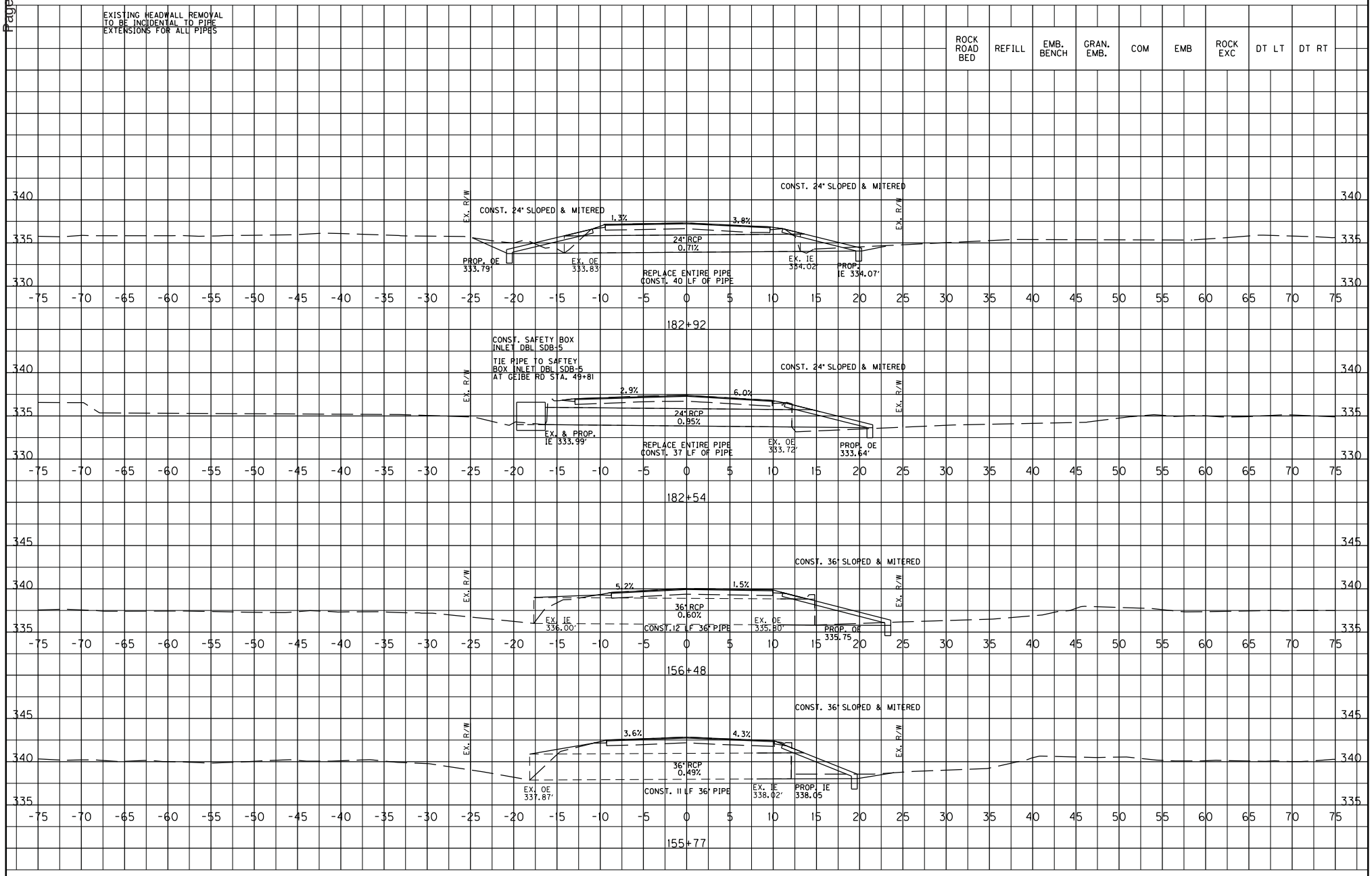
SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

PIPE SHEET
STA. 112+33 TO STA. 151+80

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

EXISTING HEADWALL REMOVAL TO BE INCIDENTAL TO PIPE EXTENSIONS FOR ALL PIPES

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT



0

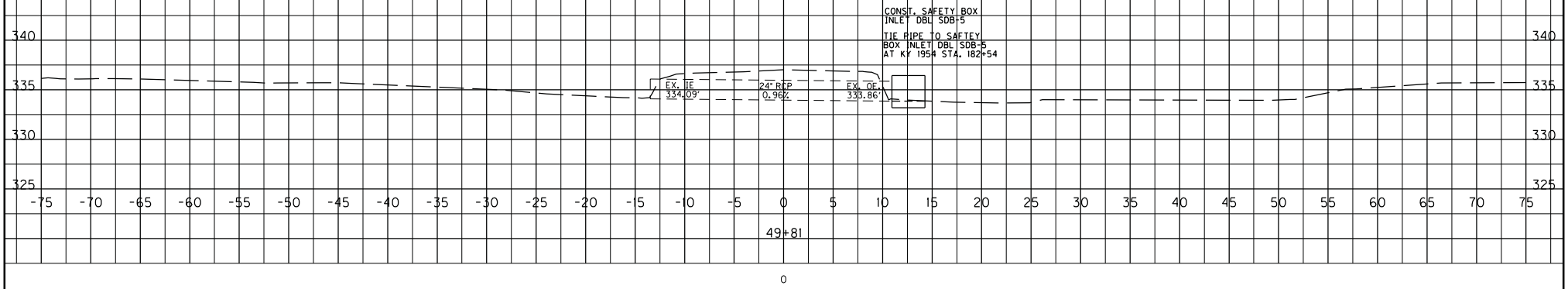
SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

PIPE SHEET
STA. 155+77 TO STA. 182+92

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

EXISTING HEADWALL REMOVAL TO BE INCIDENTAL TO PIPE EXTENSIONS FOR ALL PIPES

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT



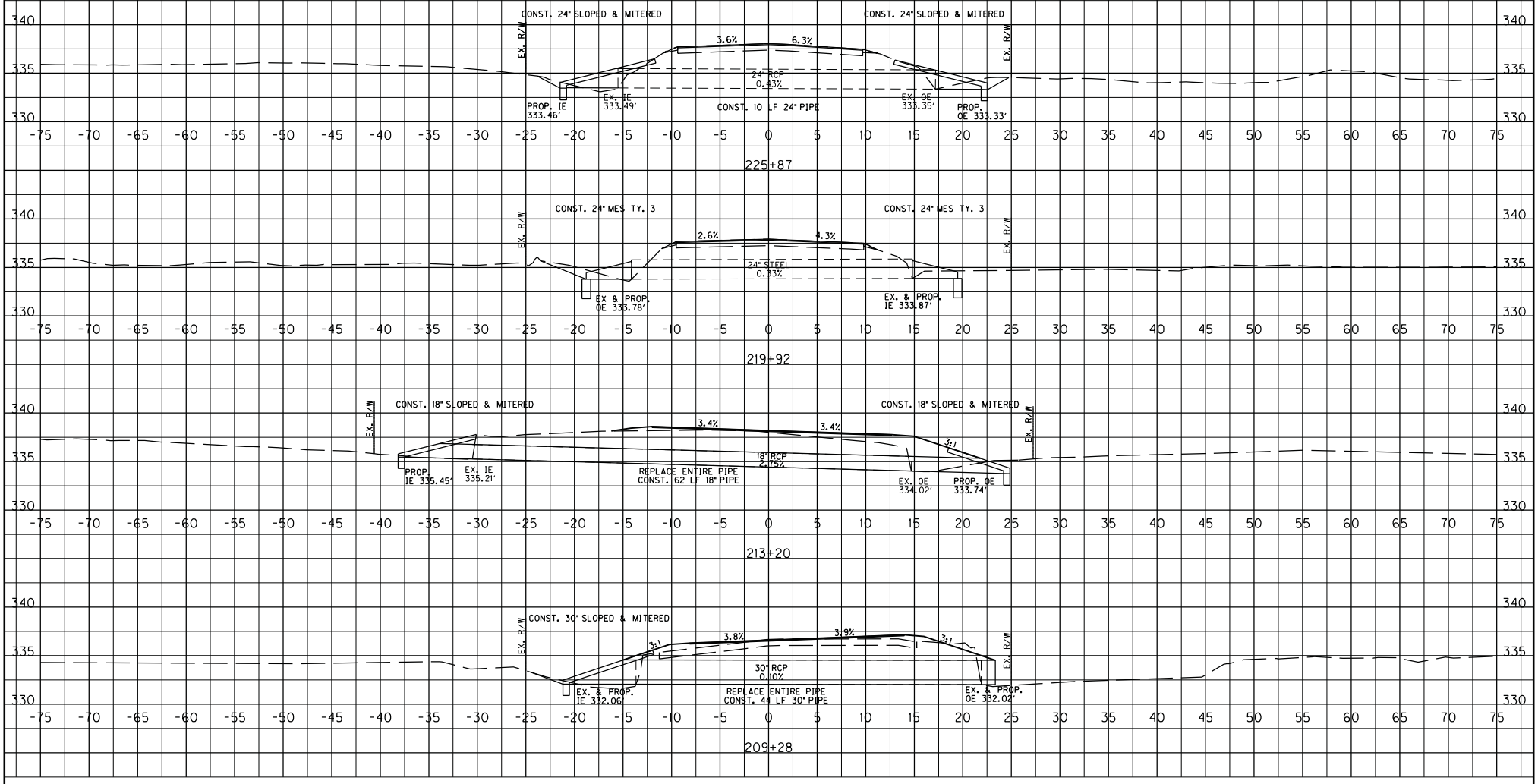
SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

GEIBE RD.
STA. 49+81

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

EXISTING HEADWALL REMOVAL TO BE INCIDENTAL TO PIPE EXTENSIONS FOR ALL PIPES

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT



0

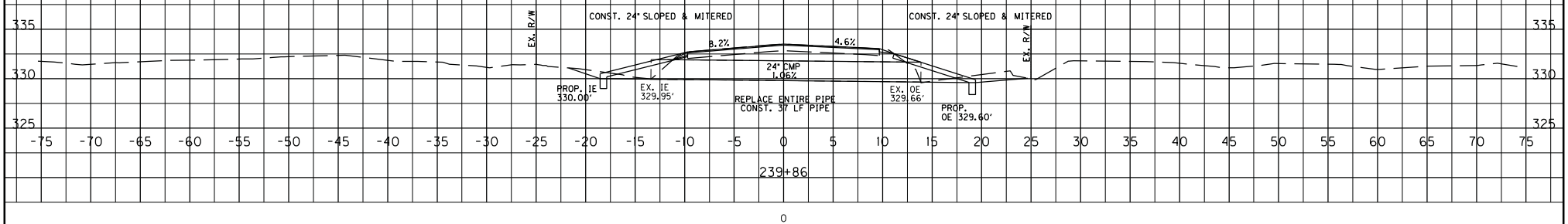
SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

PIPE SHEET
STA. 209+28 TO STA. 225+87

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

EXISTING HEADWALL REMOVAL
TO BE INCIDENTAL TO PIPE
EXTENSIONS FOR ALL PIPES

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

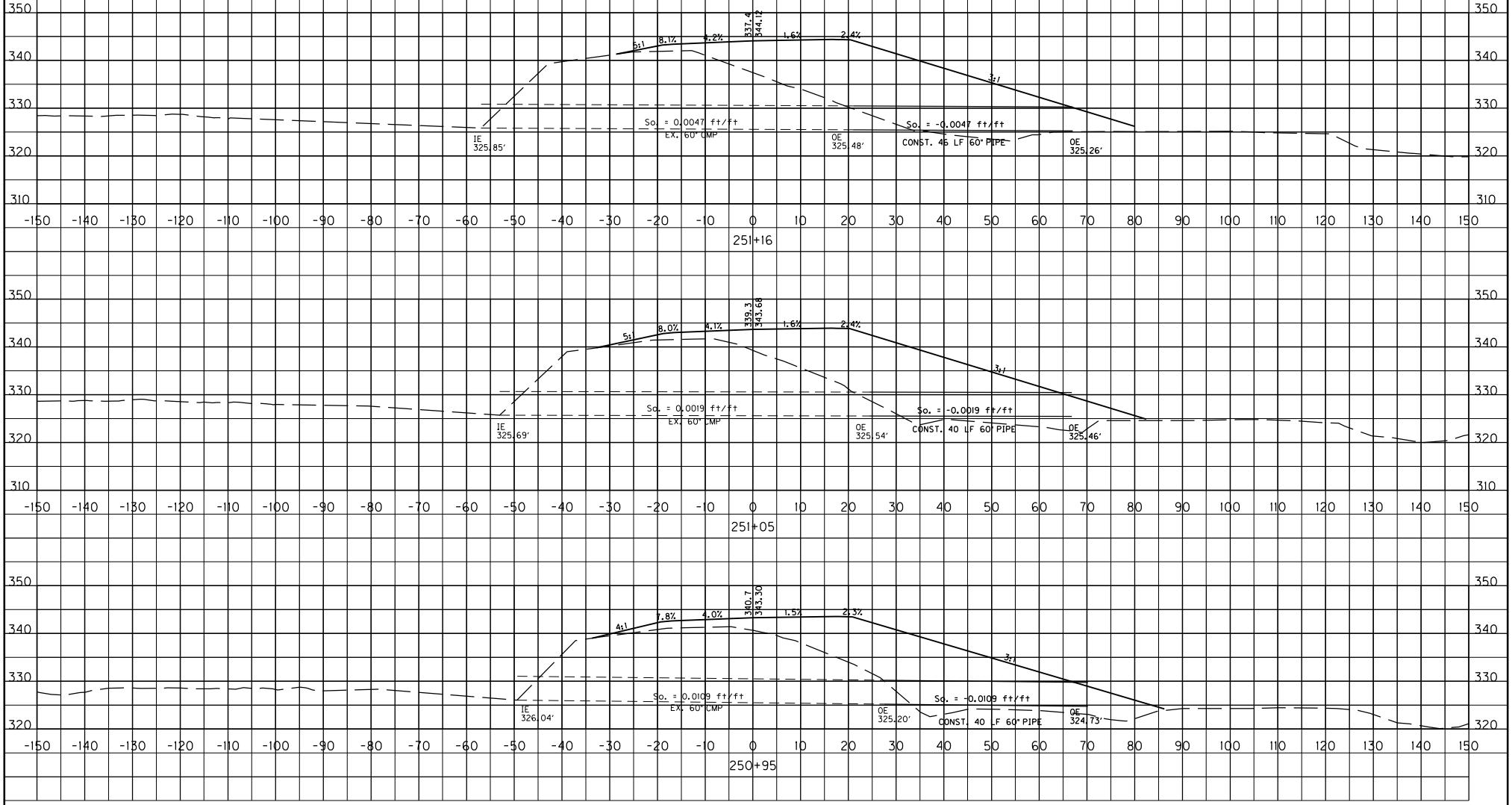
PIPE SHEET
STA. 239+86 TO STA. 250+91

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

PIPE DRAINAGE SHEET of

STORM SEWER PIPE

L I N E A R F E E T



SCALE: 1"=10'

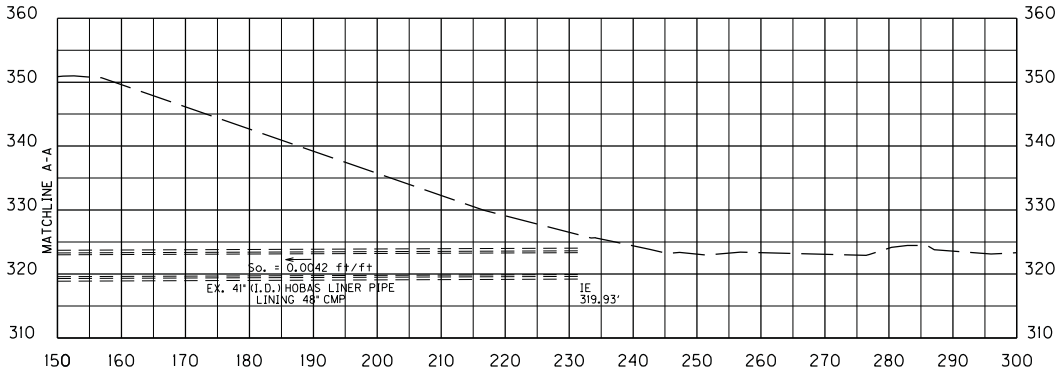
PIPE SHEETS
STA. 250+95 TO STA. 251+16
48+70 CLARK LINE RD.

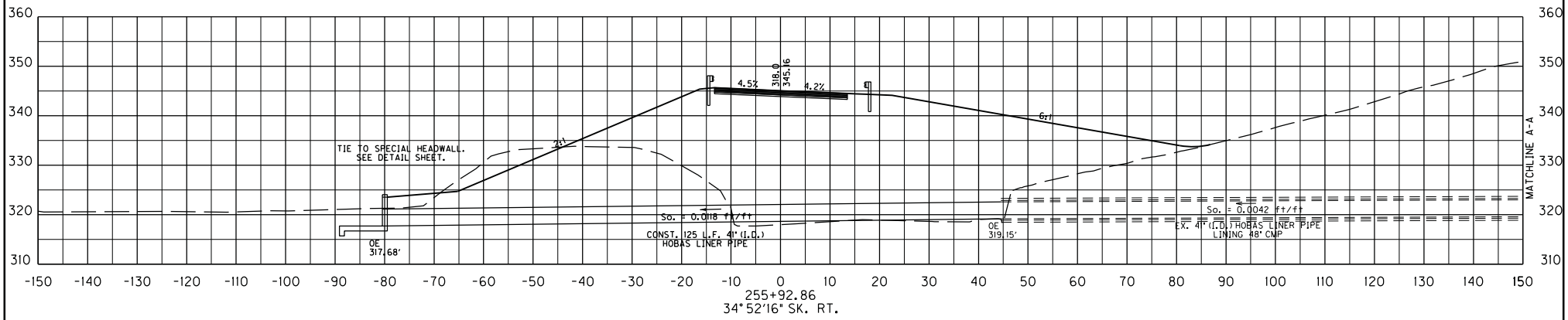
COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

PIPE DRAINAGE SHEET of

STORM SEWER PIPE

L I N E A R F E E T





SCALE: 1"=10'

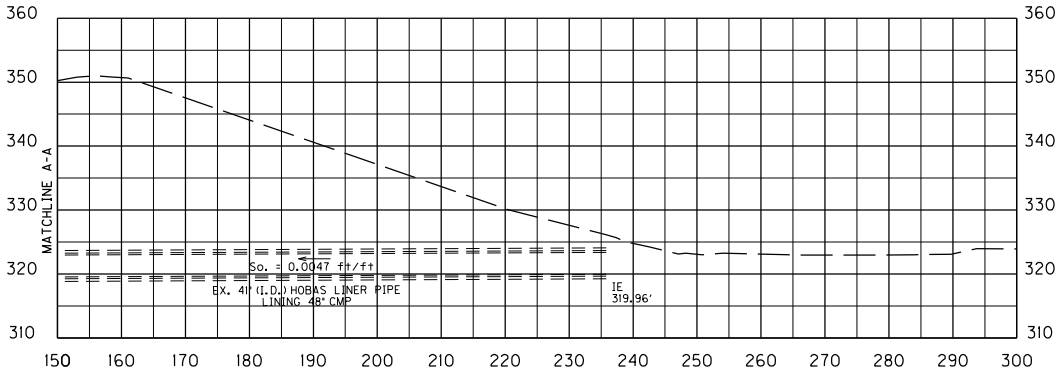
PIPE SHEETS
STA. 255+92.86

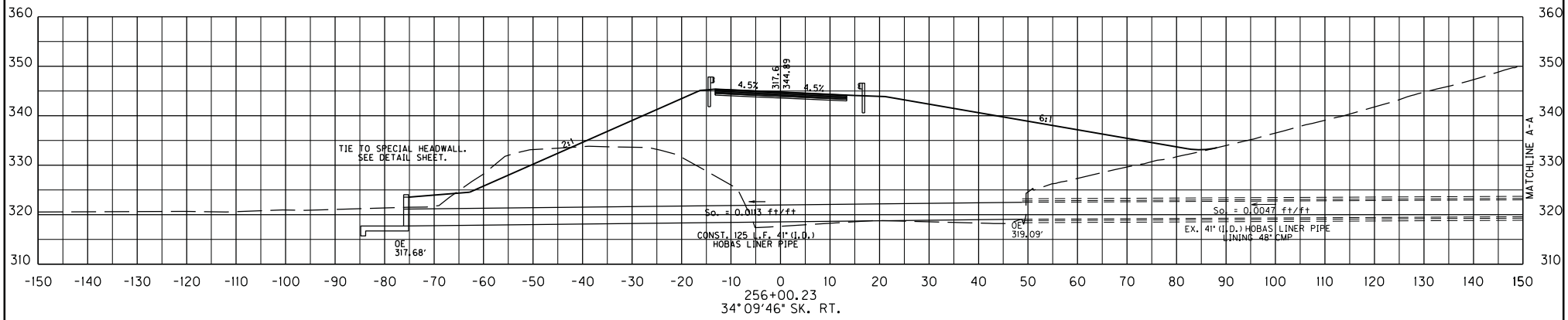
COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

PIPE DRAINAGE SHEET of

STORM SEWER PIPE

L I N E A R F E E T





256+00.23
34°09'46" SK. RT.

SCALE: 1"=10'

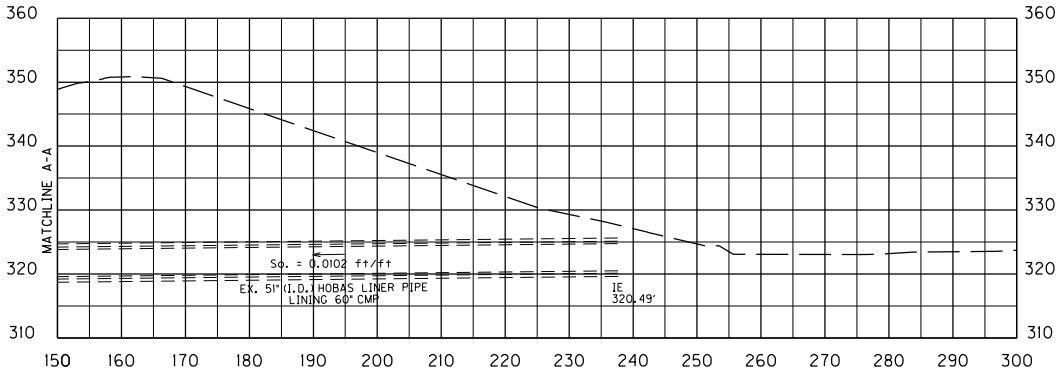
PIPE SHEETS
STA. 256+00.23

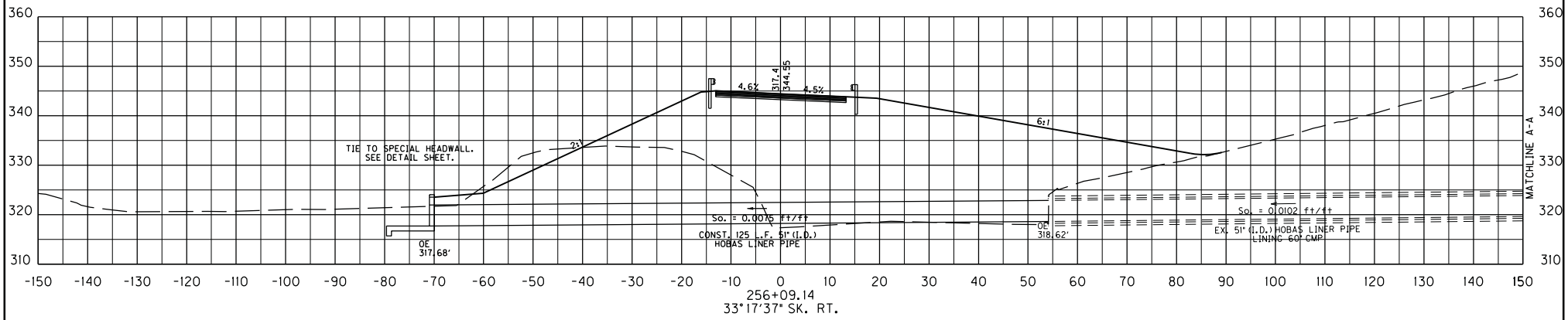
COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

PIPE DRAINAGE SHEET of

STORM SEWER PIPE

L I N E A R F E E T





SCALE: 1"=10'

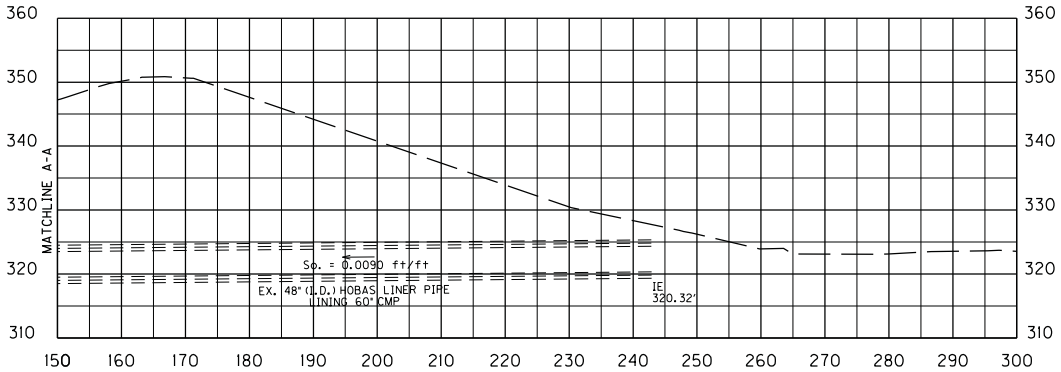
PIPE SHEETS
STA. 256+09.14

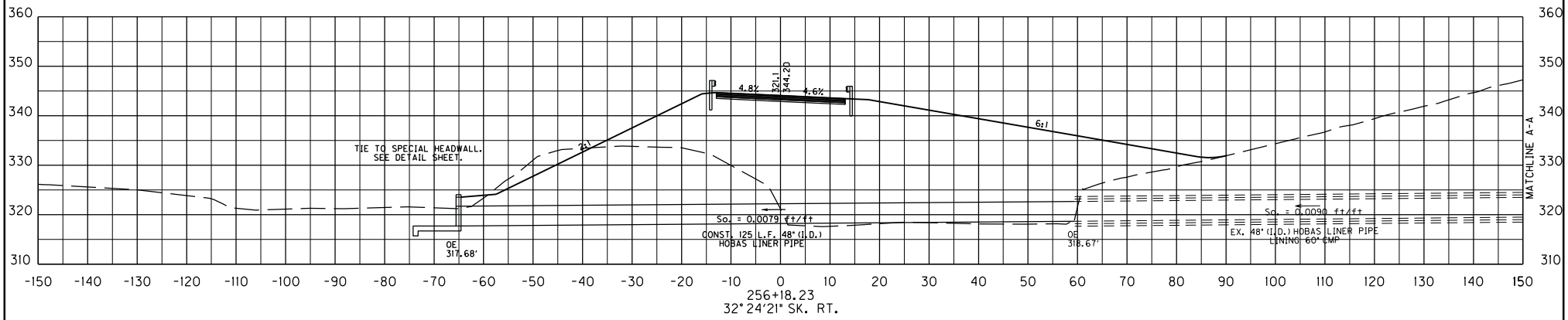
COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

PIPE DRAINAGE SHEET of

STORM SEWER PIPE

L I N E A R F E E T





SCALE: 1"=10'

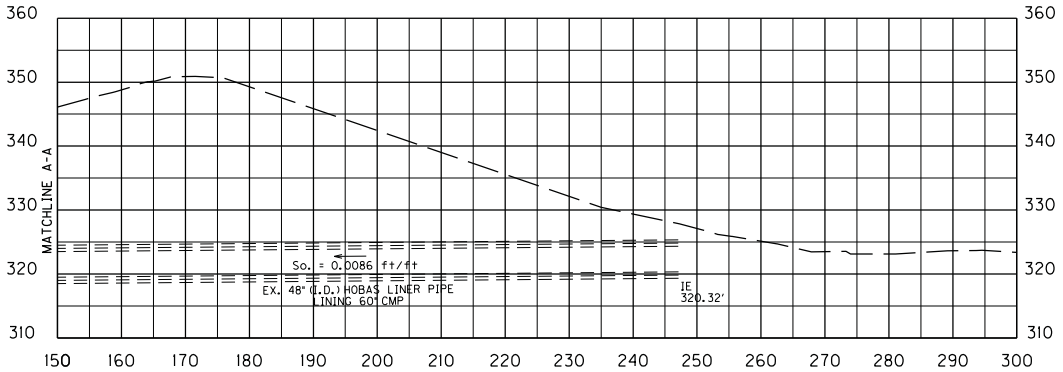
PIPE SHEETS
STA. 256+18.23

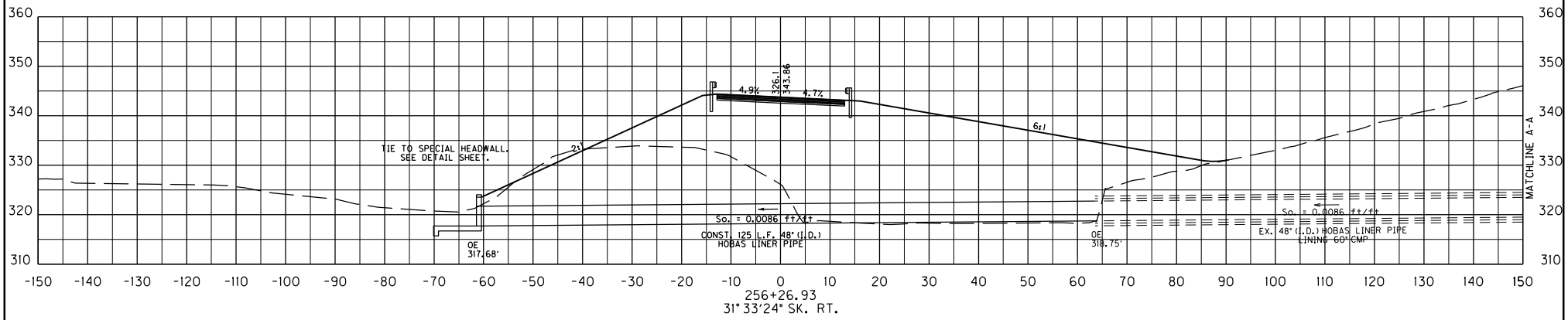
COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

PIPE DRAINAGE SHEET of

STORM SEWER PIPE

L I N E A R F E E T





256+26.93
31°33'24" SK. RT.

SCALE: 1"=10'

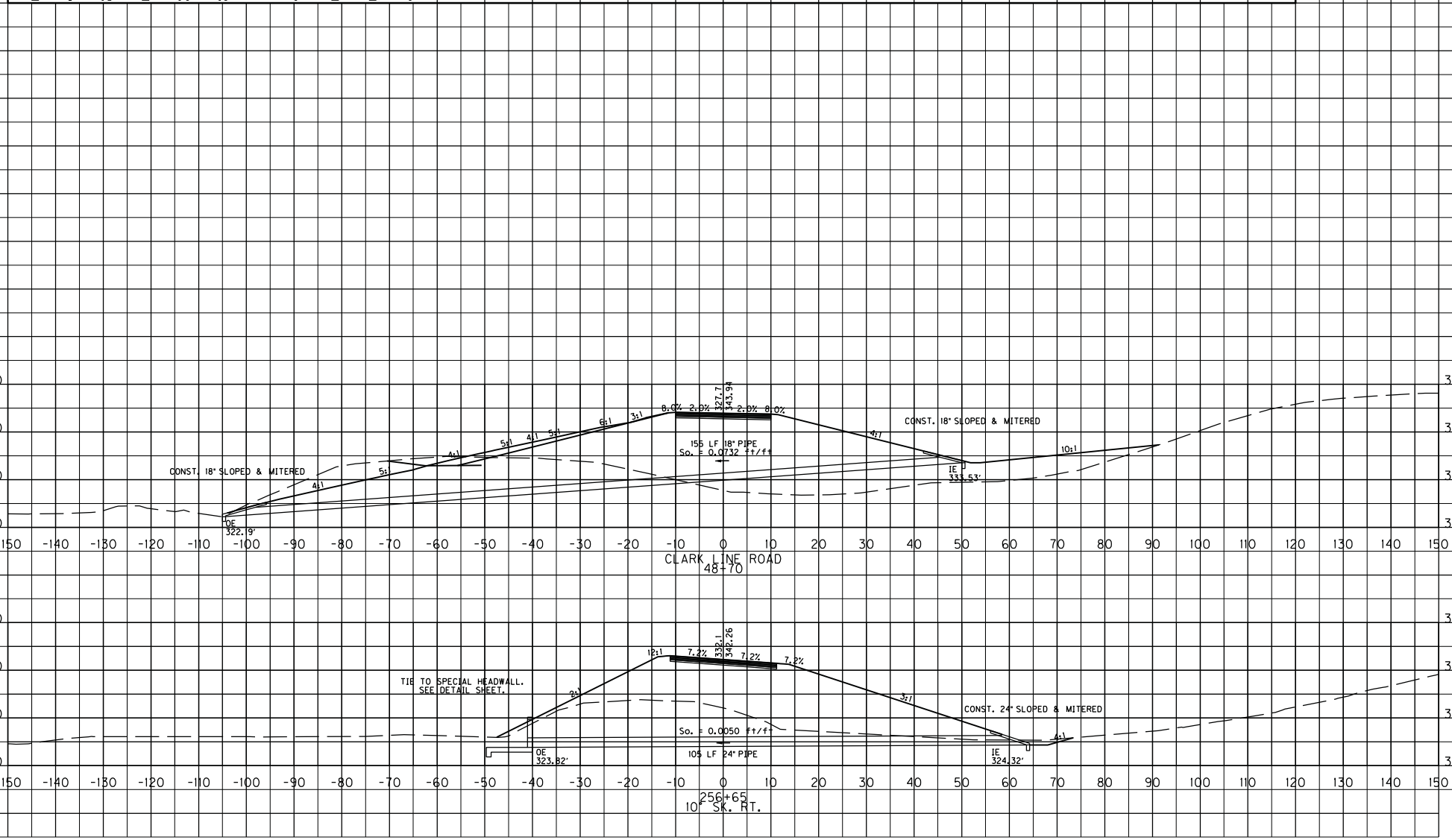
PIPE SHEETS
STA. 256+26.93

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

PIPE DRAINAGE SHEET of

STORM SEWER PIPE

L I N E A R F E E T

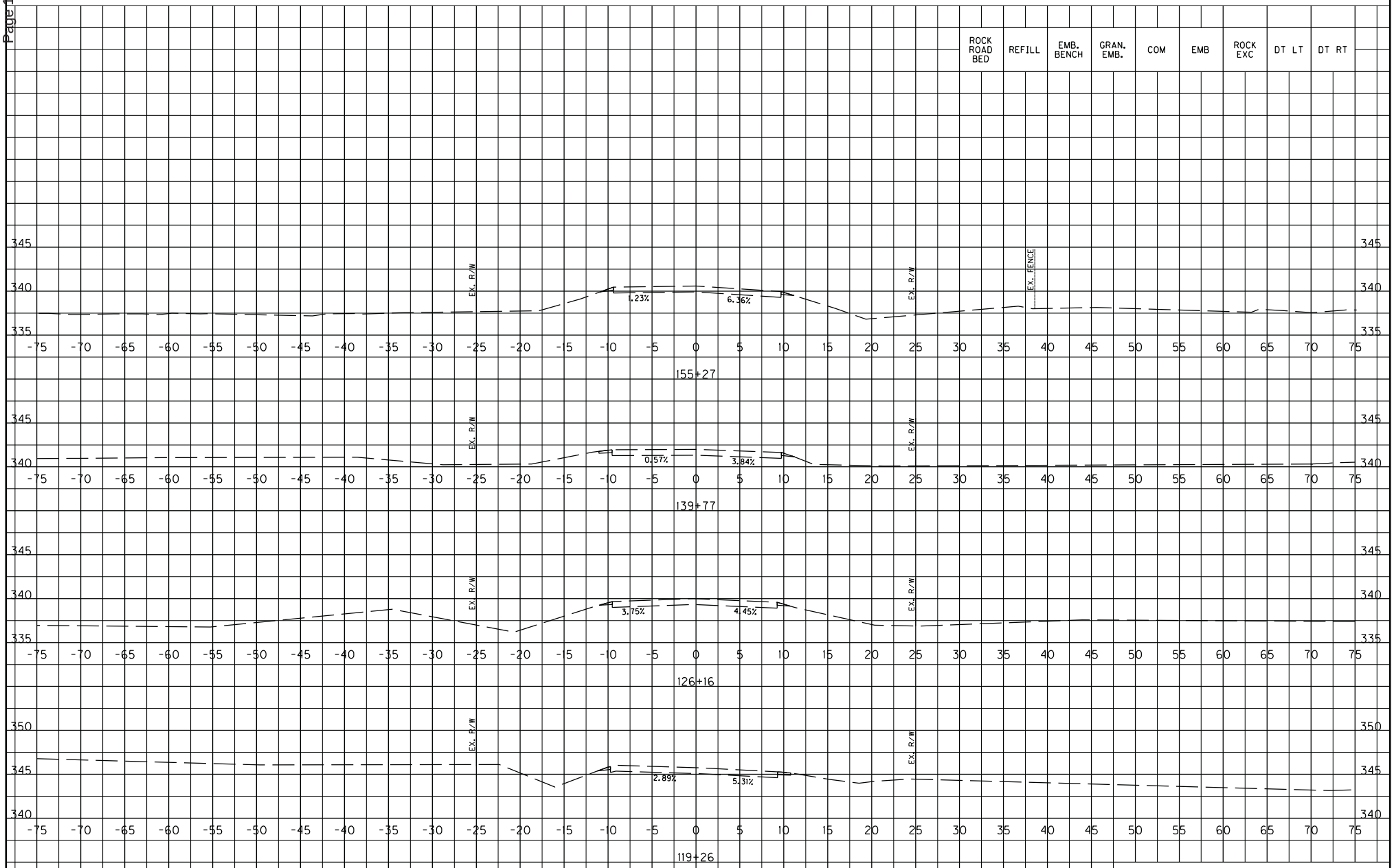


SCALE: 1"=10'

PIPE SHEETS
STA. 256+65 MAINLINE
48+70 CLARK LINE RD.

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT

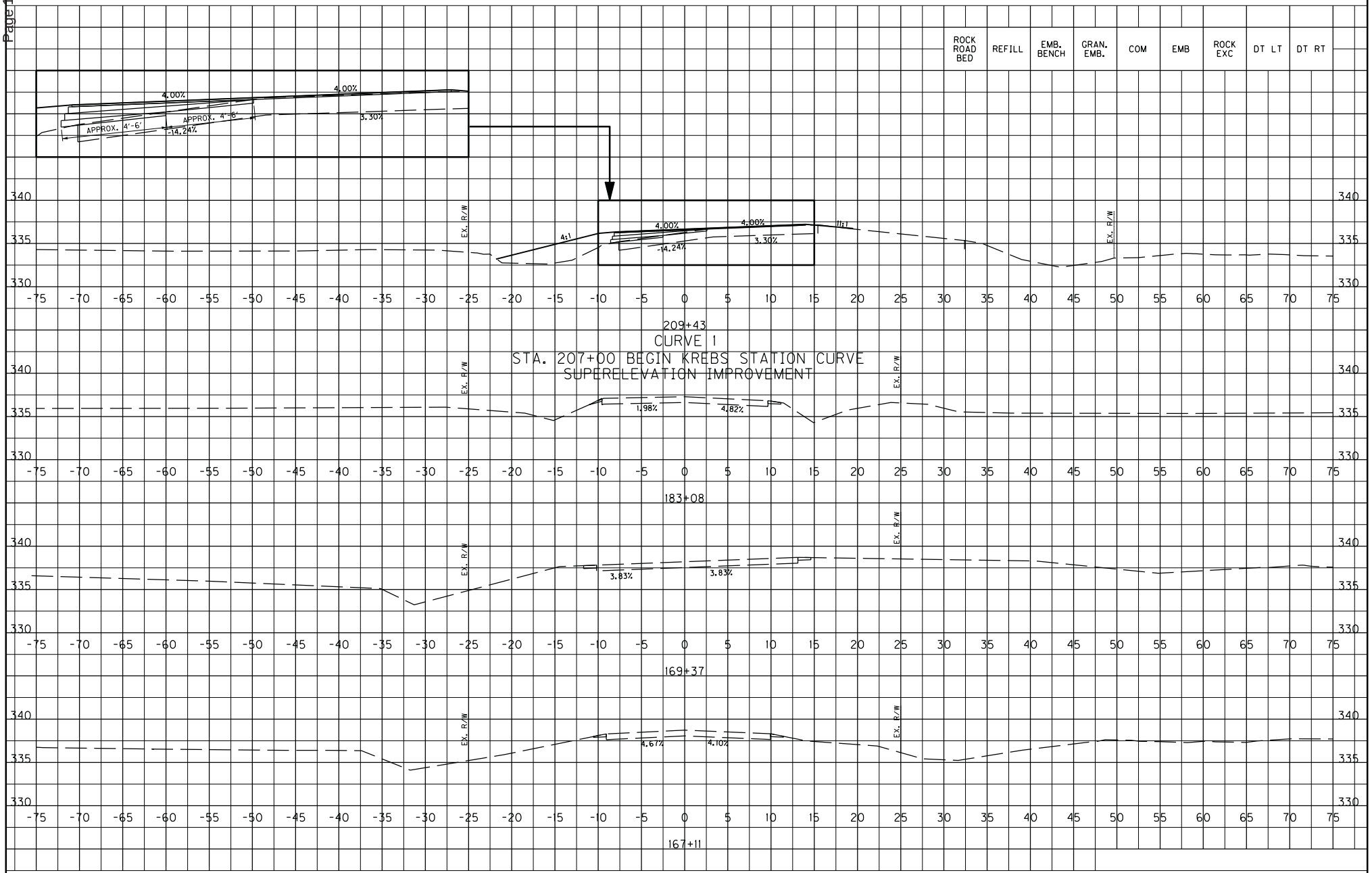


SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

MAINLINE X-SECTIONS
STA. 119+26 TO STA. 155+27
MP 0.36 TO MP 1.05

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT

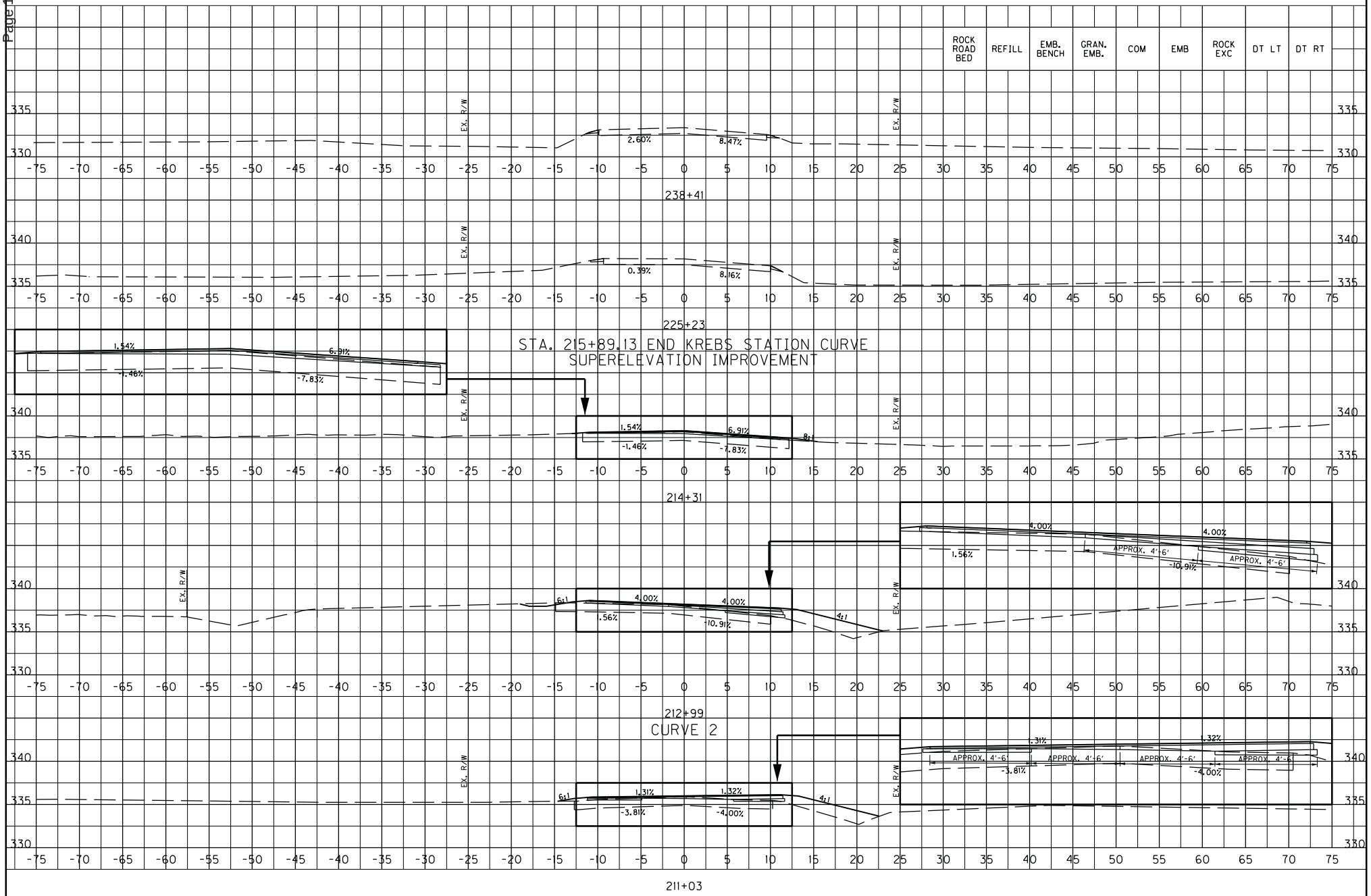


SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

MAINLINE X-SECTIONS
STA. 167+11 TO STA. 209+43
MP 1.27 TO MP 2.07

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

MAINLINE X-SECTIONS
STA. 211+03 TO STA. 238+41
MP 2.10 TO MP 2.62

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

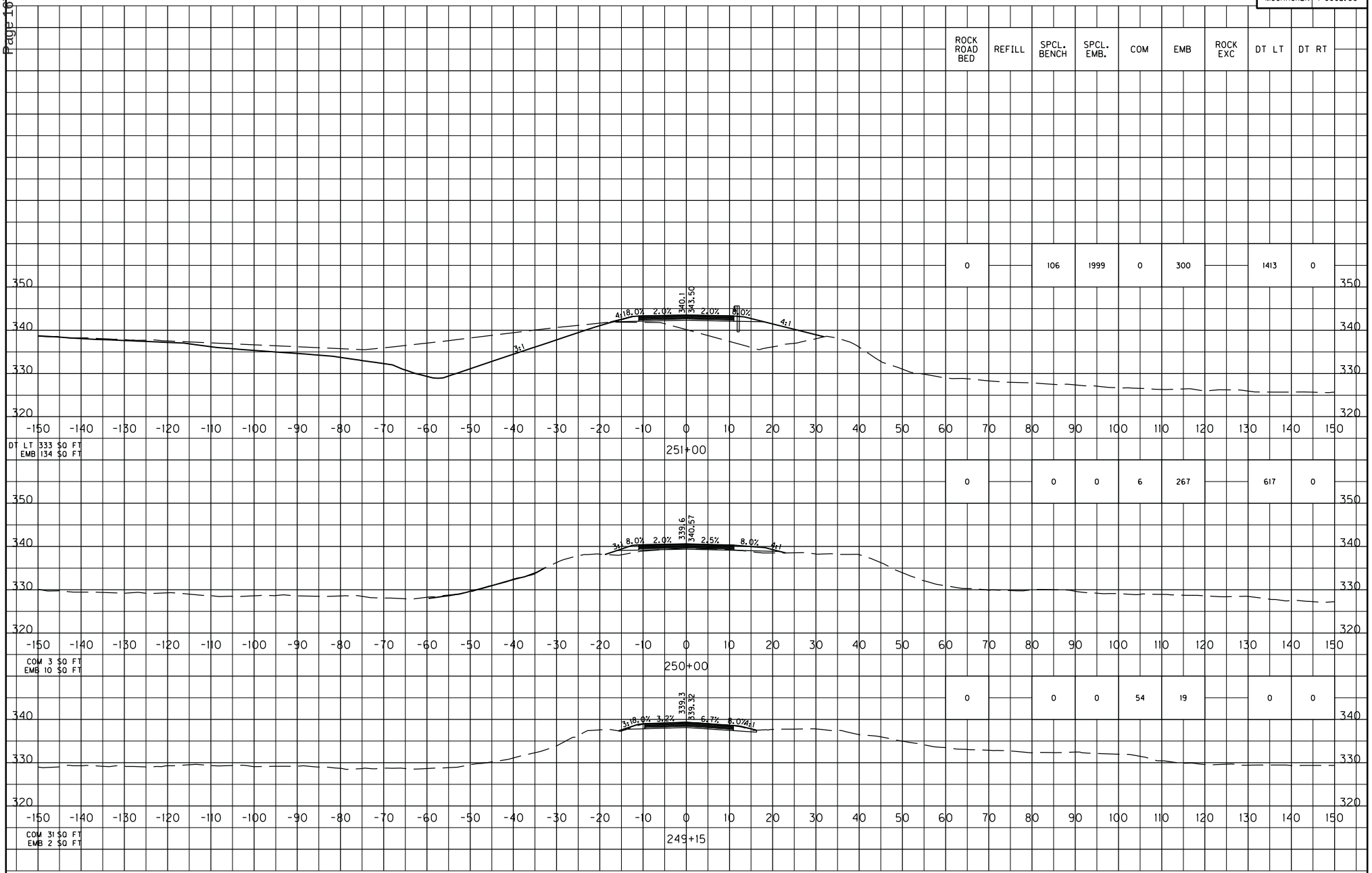
ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT

SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

MAINLINE X-SECTIONS
STA. 247+60
MP 2.80

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

	ROCK ROAD BED	REFILL	SPCL. BENCH	SPCL. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT
251+00	0		106	1999	0	300		1413	0
250+00	0		0	0	6	267		617	0
249+15	0		0	0	54	19		0	0



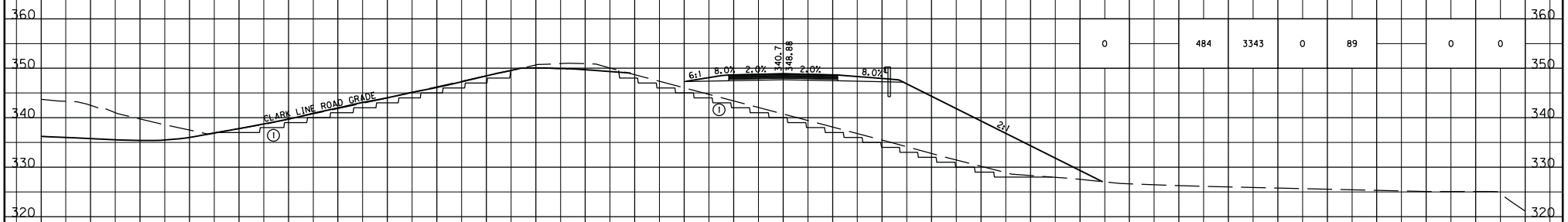
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY 1954 CLARK LINE X-SECTIONS
STA. 249+15 TO STA. 251+00

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

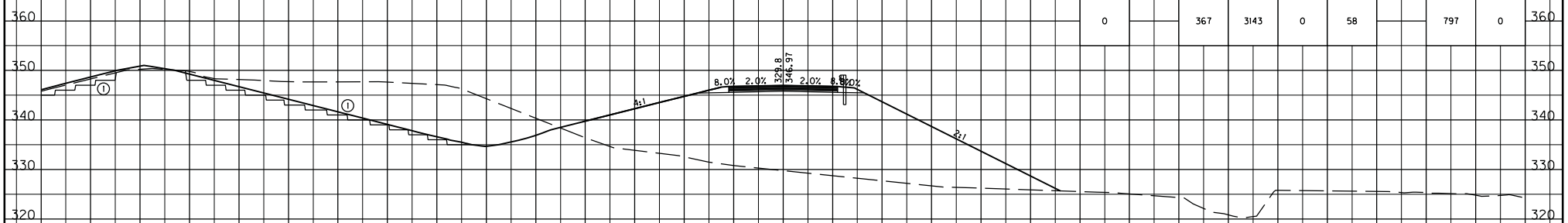
① WHEN PLACING BACKFILL WITHIN THE LIMITS OF THE LEVEE TOE, BENCHING OF THE LEVEE SHALL BE DONE PER USACE STANDARD OPERATING PROCEDURE FOR BENCHING AND COMPACTION FOR LEVEE AND FLOODWALL MODIFICATION.

ROCK ROAD BED	REFILL	SPCL. BENCH	SPCL. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT
0		484	3343	0	89		0	0



COM 0 SQ FT
EMB 3 SQ FT
SPCL. EMB 618 SQ FT

ROCK ROAD BED	REFILL	SPCL. BENCH	SPCL. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT
0		367	3143	0	58		797	0



LT DT 430 SQ FT
EMB 28 SQ FT
SPCL. EMB 1079 SQ FT

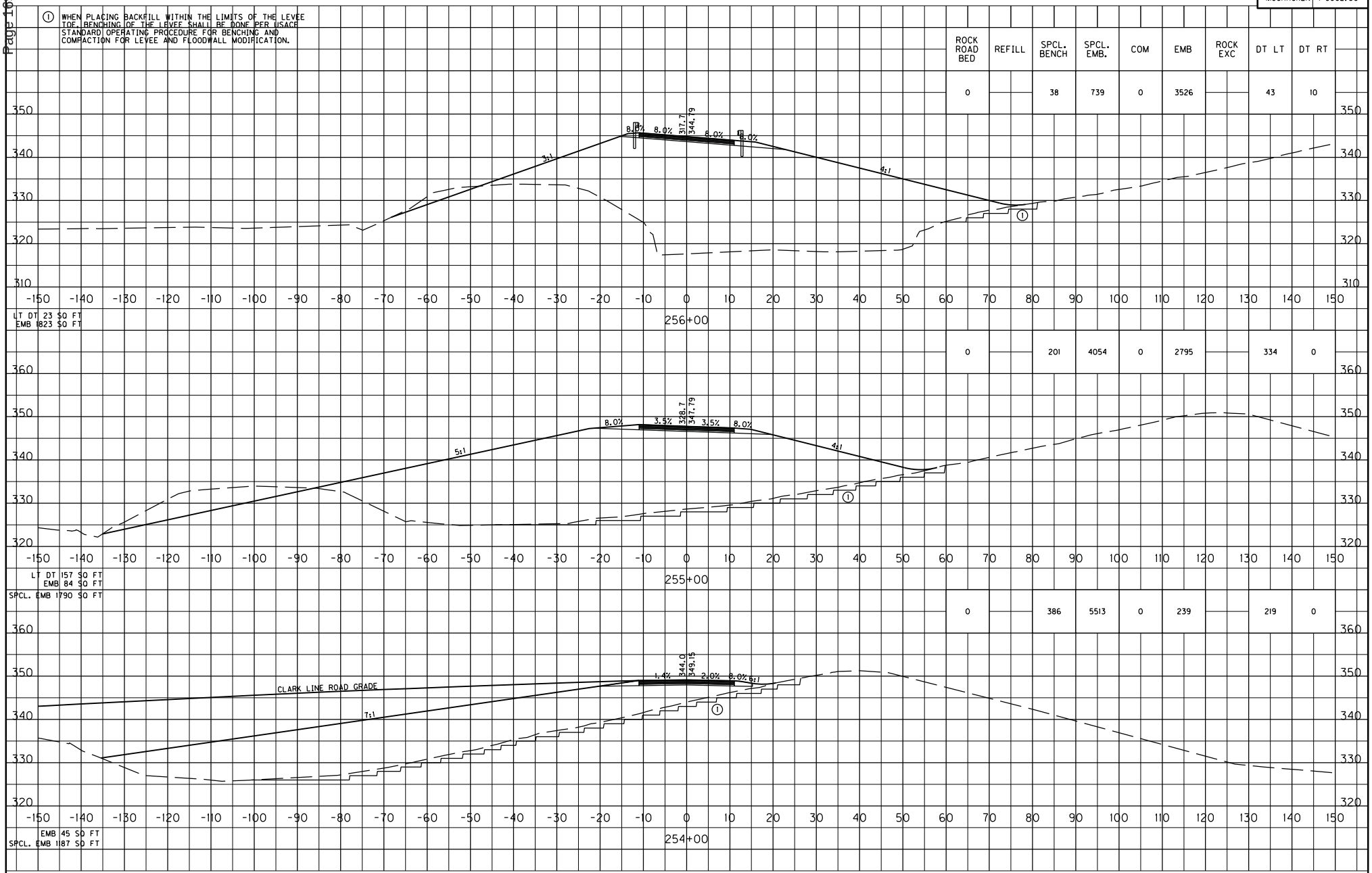
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY 1954 CLARK LINE X-SECTIONS
STA. 252+00 TO STA. 253+00

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

① WHEN PLACING BACKFILL WITHIN THE LIMITS OF THE LEVEE TOE, BENCHING OF THE LEVEE SHALL BE DONE PER USACE STANDARD OPERATING PROCEDURE FOR BENCHING AND COMPACTION FOR LEVEE AND FLOODWALL MODIFICATION.

	ROCK ROAD BED	REFILL	SPCL. BENCH	SPCL. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT
256+00	0		38	739	0	3526		43	10
255+00	0		201	4054	0	2795		334	0
254+00	0		386	5513	0	239		219	0

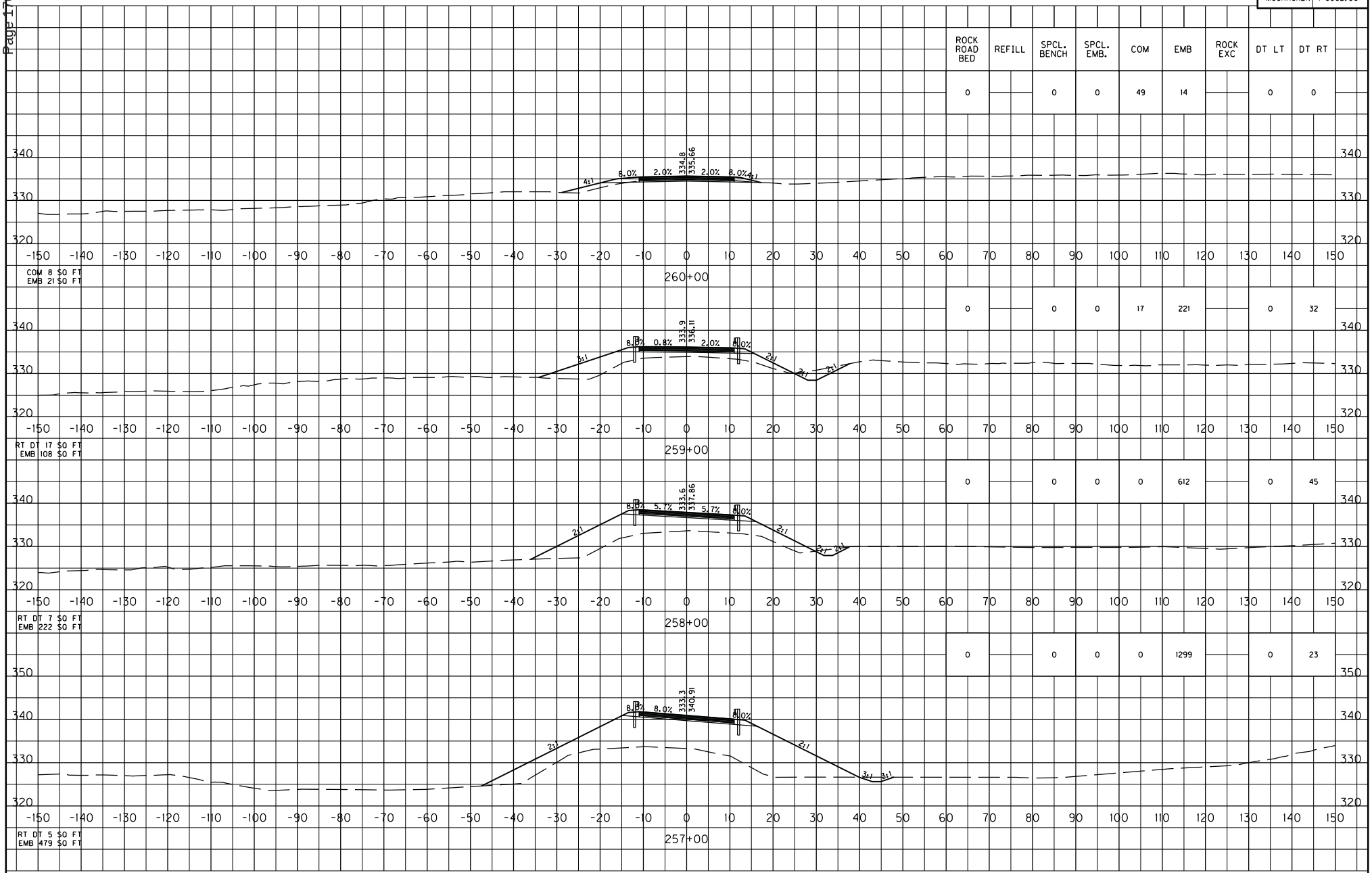


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY 1954 CLARK LINE X-SECTIONS
STA. 254+00 TO STA. 256+00

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

	ROCK ROAD BED	REFILL	SPCL. BENCH	SPCL. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT
260+00	0		0	0	49	14		0	0
259+00	0		0	0	17	221		0	32
258+00	0		0	0	0	612		0	45
257+00	0		0	0	0	1299		0	23

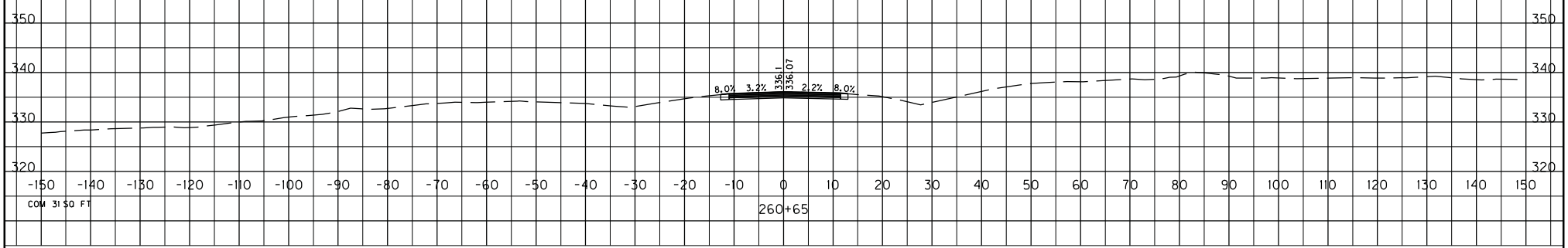


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY 1954 CLARK LINE X-SECTIONS
STA. 257+00 TO STA. 260+00

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

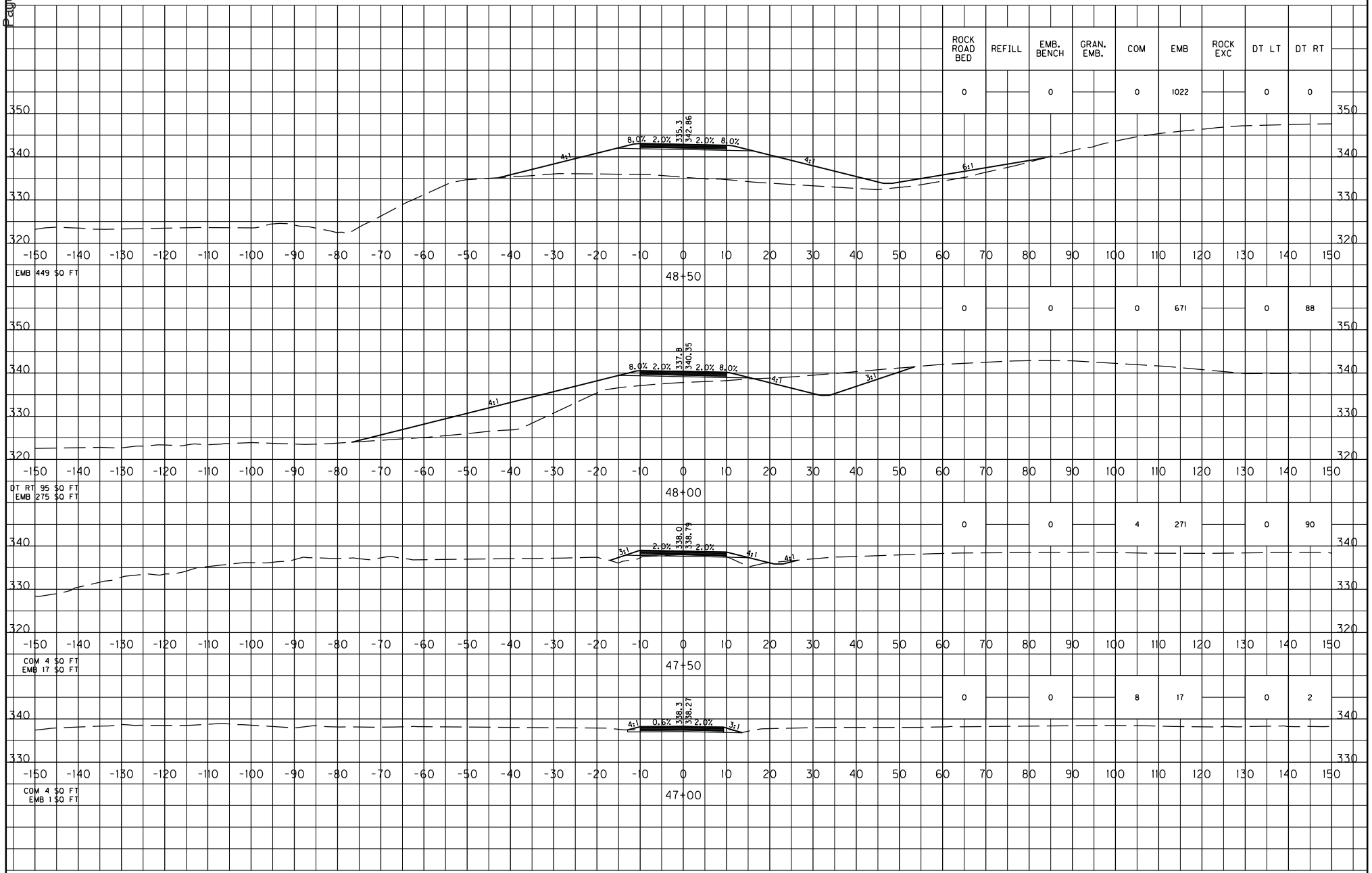
	ROCK ROAD BED	REFILL	SPCL. BENCH	SPCL. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT
PROJECT TOTALS	0		1582	18791	159	12251		3495	290
KY 1954 TOTALS	0		1582	18791	147	9439		3495	110
	0		0	0	21	0		0	0



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

KY 1954 CLARK LINE X-SECTIONS
STA. 260+65 TO STA. 260+65

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

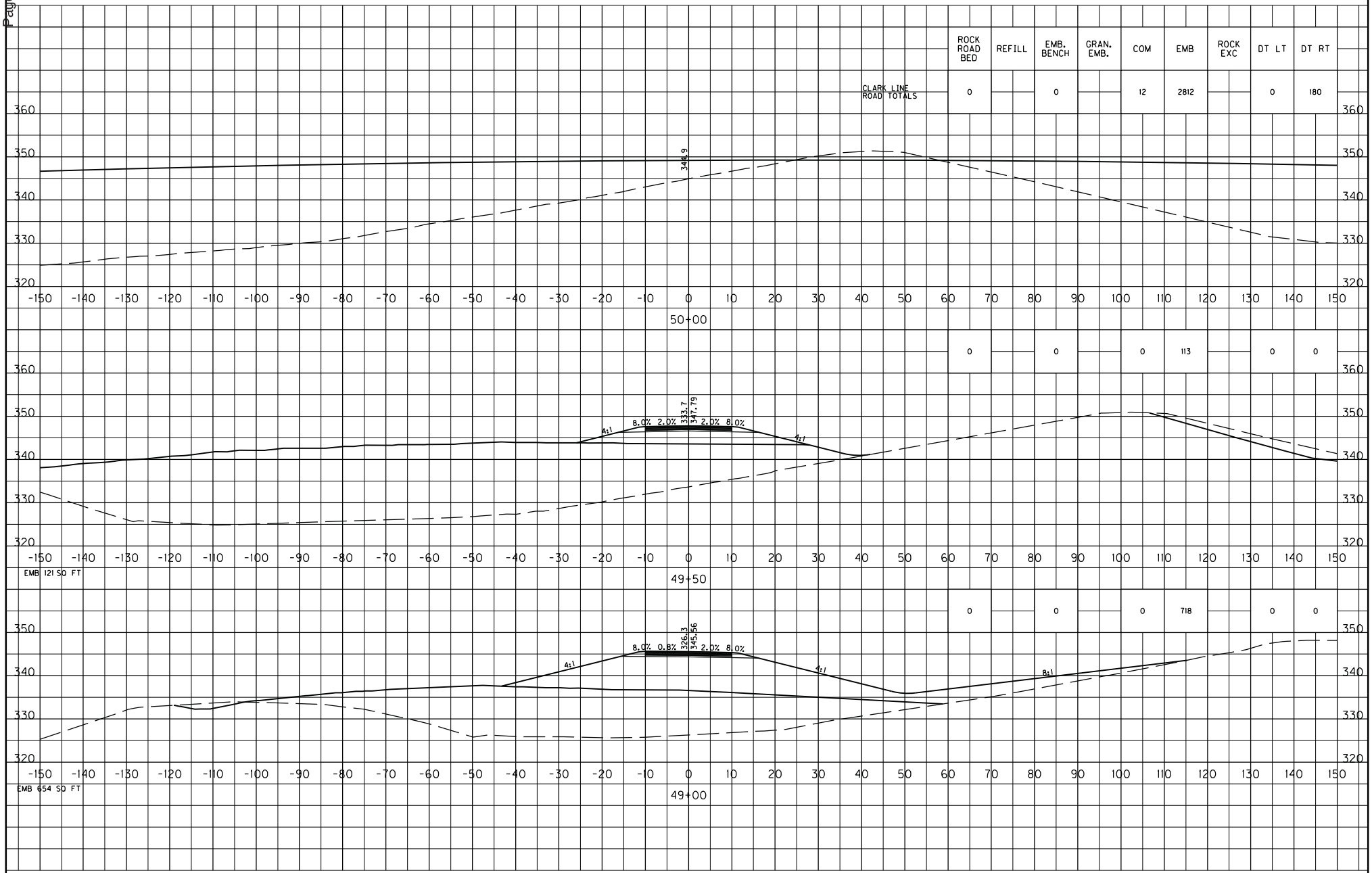


SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

CLARK LINE ROAD X-SECTIONS
STA. 47+00 TO STA. 48+50

COUNTY OF	ITEM NO.
MCCRACKEN	1-9002.00

	ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT
CLARK LINE ROAD TOTALS	0		0		12	2812		0	180



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

CLARK LINE ROAD X-SECTIONS
STA. 49+00 TO STA. 50+00

FIGURE 1

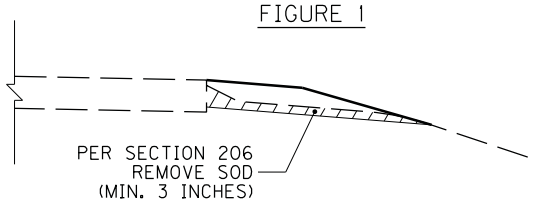


FIGURE 2

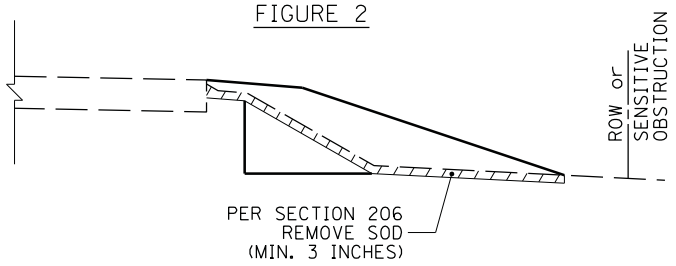


FIGURE 3

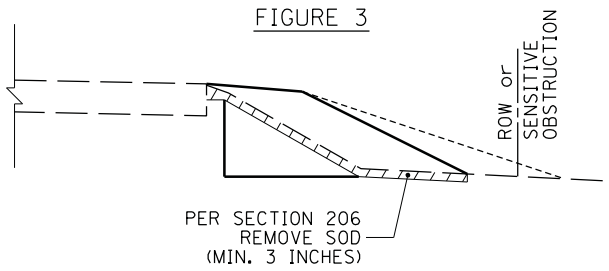


FIGURE 4

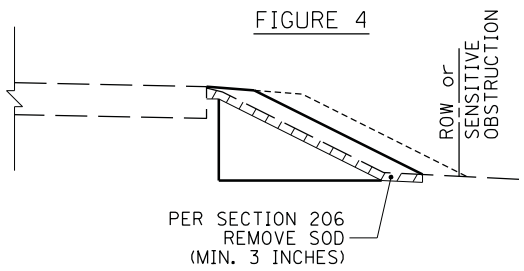


FIGURE 5

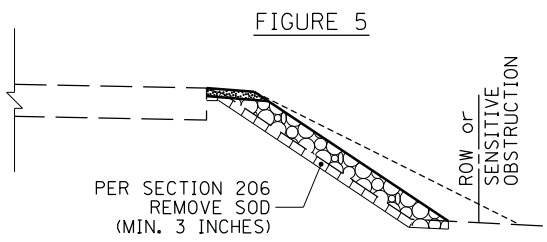
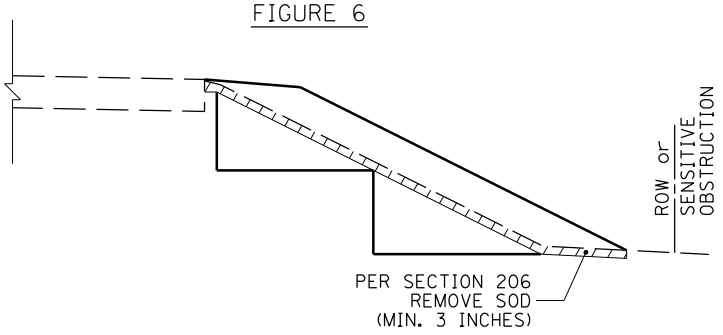


FIGURE 6



NOTE: The desire of the Department is to keep the fill slopes at 3:1 or flatter. When slopes need to be steeper, and the existing condition is steeper than 3:1, the slope should not be steeper than the existing condition. Some field adjustments of the shoulder, fill slope, and/or superelevation improvement may be required. The resulting shoulder and fill slope grading is intended to occur within Right-Of-Way and NOT disturb any sensitive obstructions (i.e. fences, buildings, utility poles, etc.). Superelevation improvements with sensitive obstructions along the roadside shall still require the roadside shoulder and fill slope to be modified, but the slope may have to be constructed steeper than what is shown on the superelevation typical section. Further, if a desired superelevation improvement will result in a fill slope having to be graded steeper in order to not impact a sensitive obstruction, then the superelevation rate should be modified (reduced) in order to reduce the final change in pavement edge elevation, thereby reducing the height of the new fill slope grading, and allowing for a flatter fill slope.

NOT TO SCALE

KENTUCKY
DEPARTMENT OF HIGHWAYS

DITCHING & SHOULDERING
AND EMBANKMENT
BENCHING DETAILS
(SHEET 1 OF 2)

FIGURE 7

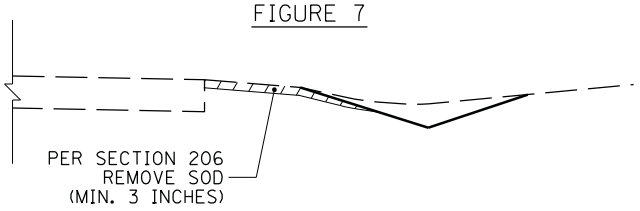


FIGURE 8

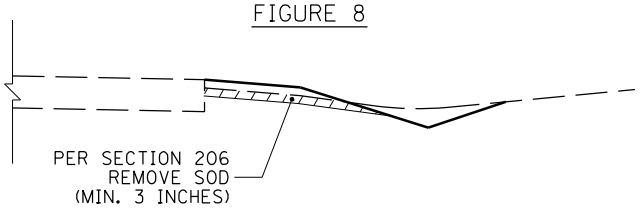


FIGURE 9

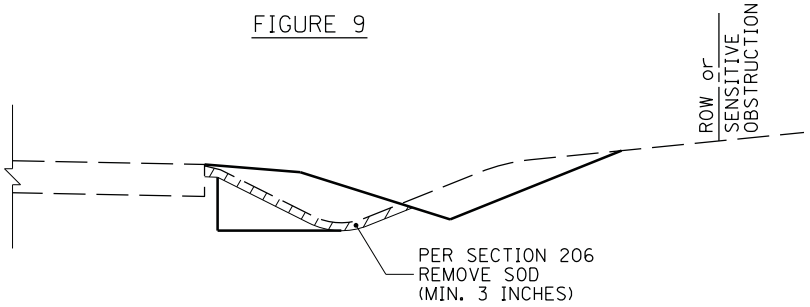


FIGURE 10

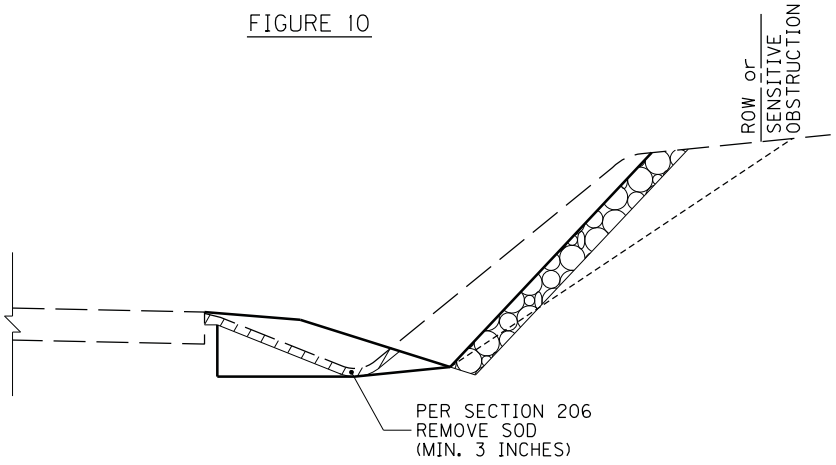
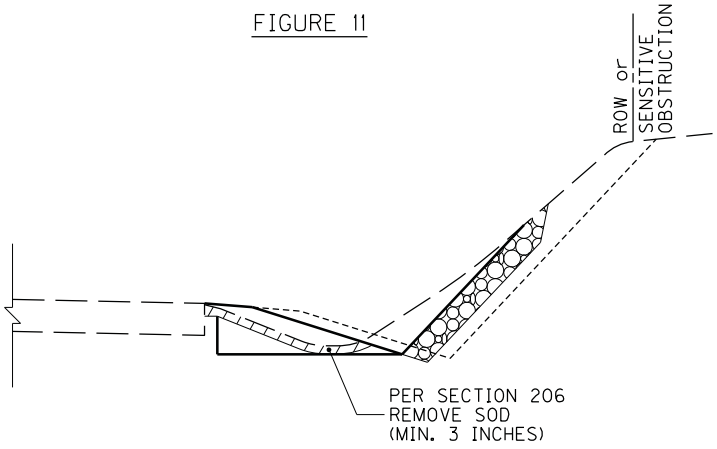


FIGURE 11



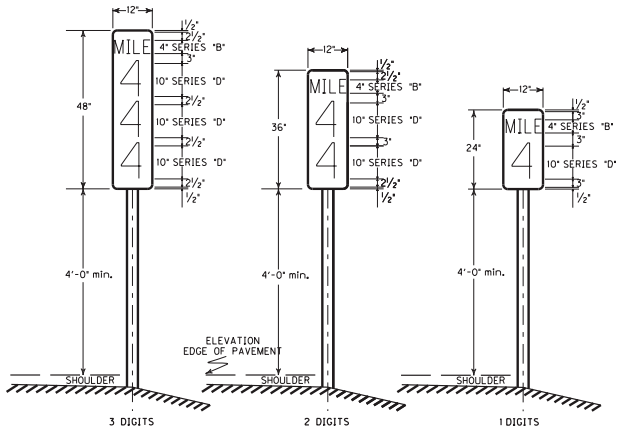
NOT TO SCALE

KENTUCKY
DEPARTMENT OF HIGHWAYS

DITCHING & SHOULDERING
AND EMBANKMENT
BENCHING DETAILS
(SHEET 2 OF 2)

COUNTY OF	ITEM NO.	SHEET NO.

MILEPOST MARKERS



TYPICAL SIGN PANEL DIMENSIONS AND MILEPOST LOCATIONS

MILE POST NUMBER	STATION NUMBER ✳ ____ BOUND LANE (S)

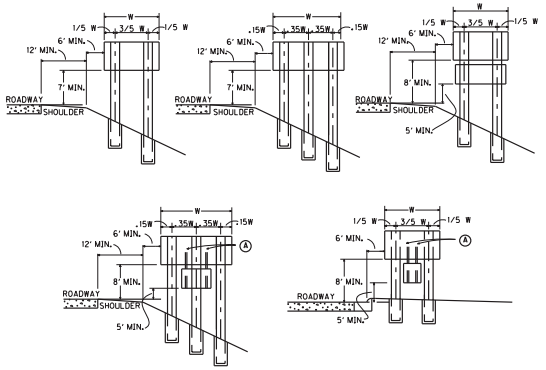
MILE POST NUMBER	STATION NUMBER ✳ ____ BOUND LANE (S)

NOTE: STATION NUMBERS ARE GIVEN FOR NOTED DIRECTION OF TRAVEL ONLY. CORRESPONDING MILEPOST MARKERS FOR OTHER DIRECTION SHOULD BE PLACED DIRECTLY OPPOSITE THOSE FOR WHICH STATION NUMBERS ARE GIVEN.

IN JEFFERSON COUNTY, FINAL LOCATION OF MILEPOST MARKERS SHALL BE VERIFIED BY TRIMARC. NOTIFY TRIMARC AT LEAST TWO WEEKS PRIOR TO BEGINNING WORK ON THIS ITEM:

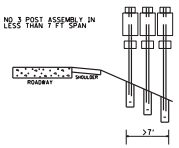
901 WEST MAIN STREET
LOUISVILLE, KY 40202
502-587-6624
270-307-7456

PANEL SIGNS

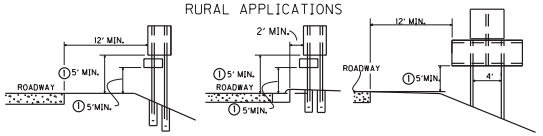


Ⓐ ATTACHMENT OF SECONDARY SIGN TO MAJOR SIGN IS TO BE MADE WITH TWO (2) 3" X 3" X 3/16" ANGLES OF SUFFICIENT LENGTH TO EXTEND FROM THE LOWER EDGE OF THE SECONDARY SIGN TO AT LEAST THREE FEET UP THE BACK OF THE MAJOR SIGN. A MINIMUM OF ONE POST CLIP PER FOOT SHALL BE USED IN ATTACHING EXTRUSIONS TO EACH ANGLE.

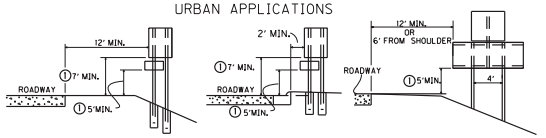
SHEETING SIGNS



RURAL APPLICATIONS



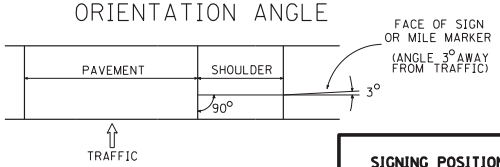
URBAN APPLICATIONS



NOTE: SHOULD A SIGN BE LOCATED AT A POINT WHERE GUARDRAIL IS CALLED FOR OR EXISTING, ALL SIGN SUPPORTS SHALL BE PLACED BEHIND THE GUARDRAIL AND LATERAL OFFSET SHALL BE MEASURED FROM THE GUARDRAIL.

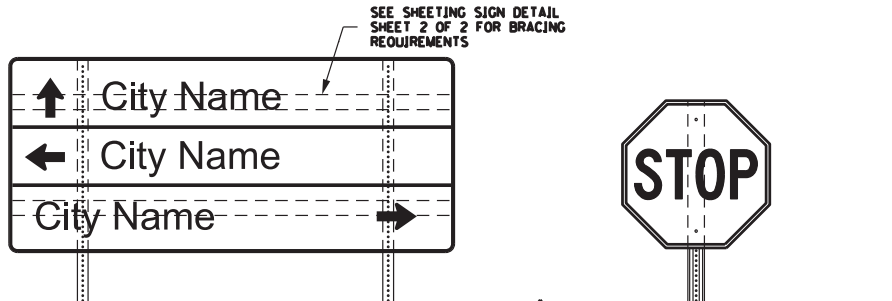
① NOT TO EXCEED 8' IN URBAN AREAS AND 6' IN RURAL AREAS UNLESS SPECIFIED BY THE ENGINEER

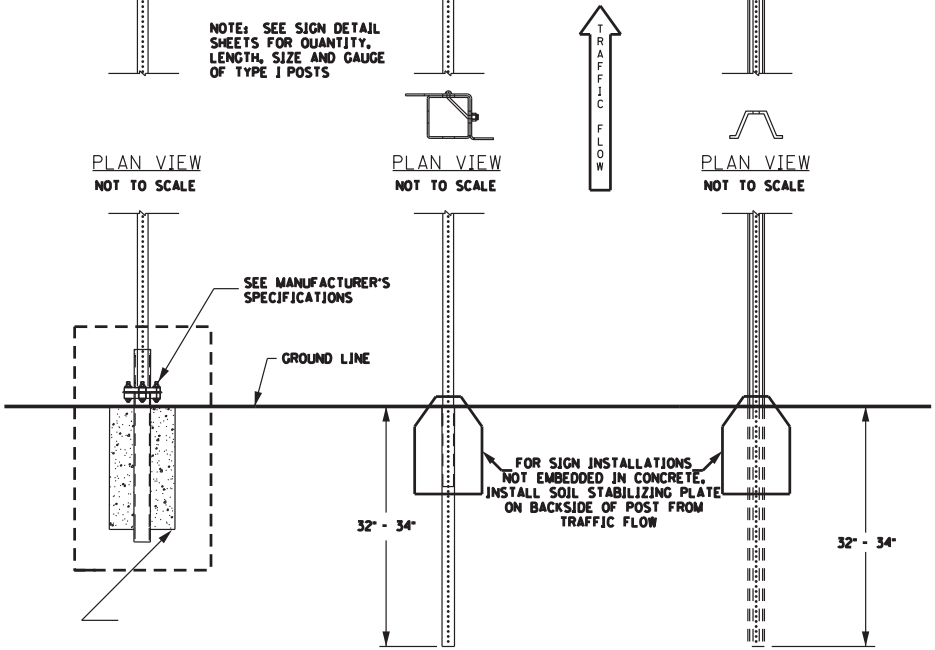
ORIENTATION ANGLE

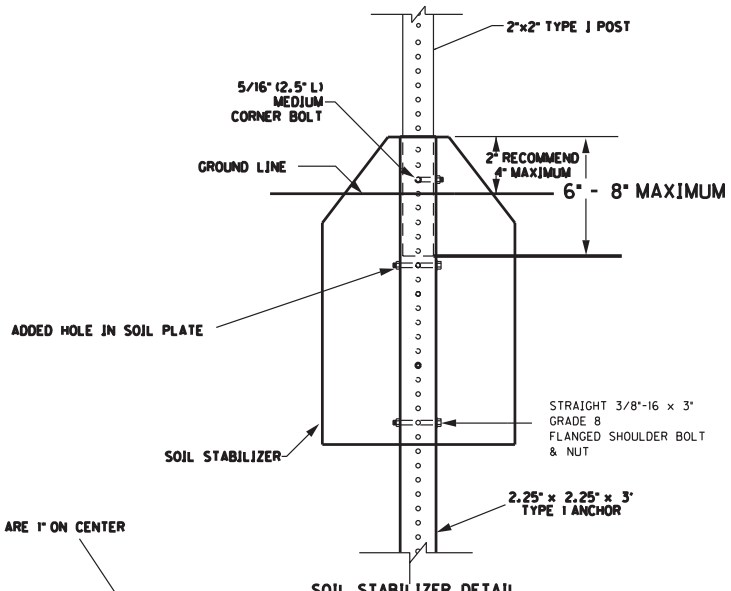


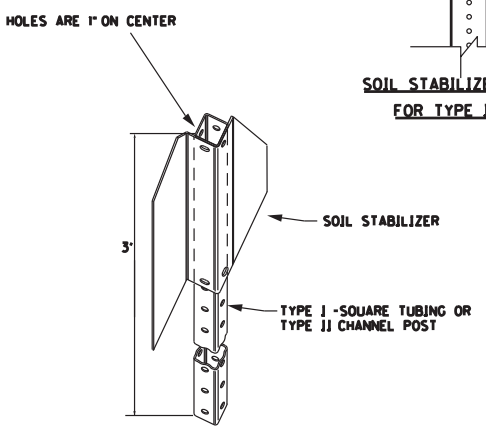
SIGNING POSITIONING DETAIL SHEET

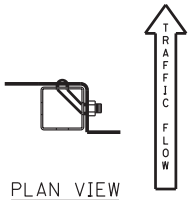
COUNTY OF	ITEM NO.	SHEET NO.









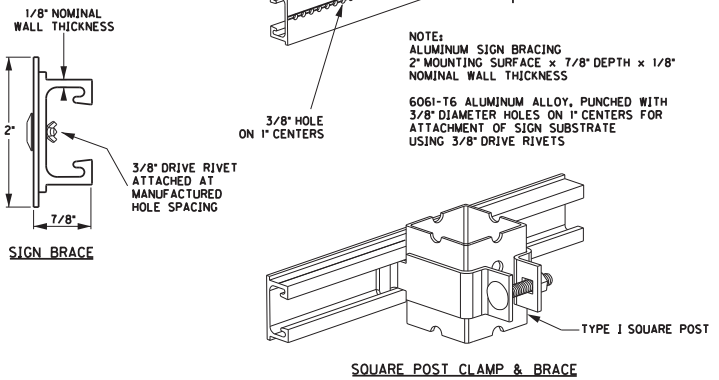


NOT TO SCALE

SHEETING SIGN DETAIL
SHEET 1 OF 2

COUNTY OF	ITEM NO.	SHEET NO.

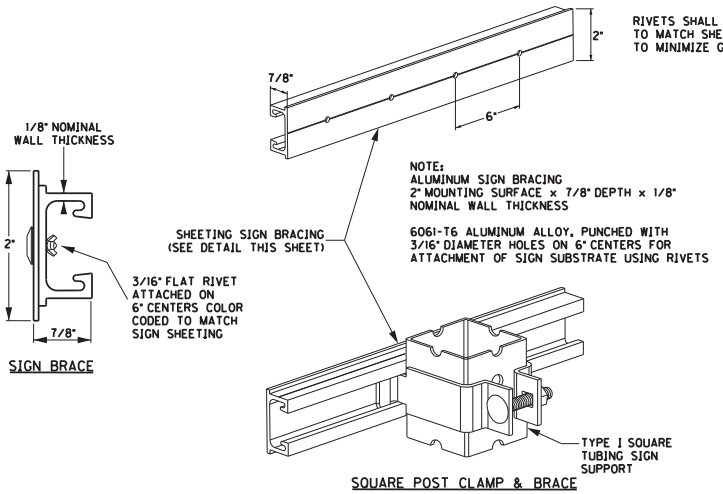
FOR ATTACHMENT OF SIGNS LESS THAN 72" IN WIDTH USING MANUFACTURED 3/8" HOLES ACCORDING TO 2004 STANDARD HIGHWAY SIGNS BLANK STANDARDS PGS 7-1 THRU 7-6



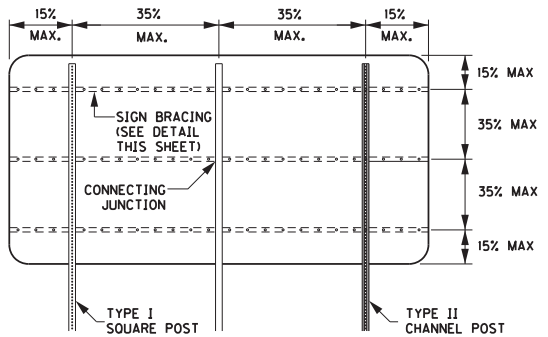
SQUARE POST CLAMP & BRACE

FOR ATTACHMENT OF SIGNS GREATER THAN 72" IN WIDTH.

RIVETS SHALL BE COLOR CODED TO MATCH SHEETING IN ORDER TO MINIMIZE GLARE FROM RIVETS



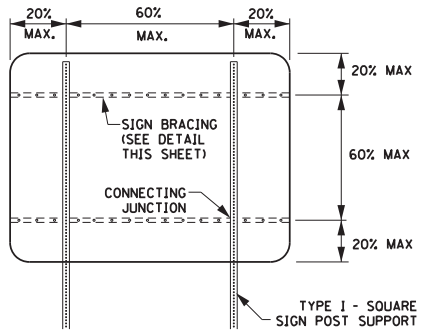
SQUARE POST CLAMP & BRACE



3 POST - BRACING DIAGRAM

NOTE:
1. MAXIMUM AREA PER CONNECTING JUNCTION = 16 SQ. FT.

2. BRACING SHOULD NOT BE SPLICED WITHIN 6" OF A BRACE TO POST JUNCTION.



2 POST - BRACING DIAGRAM

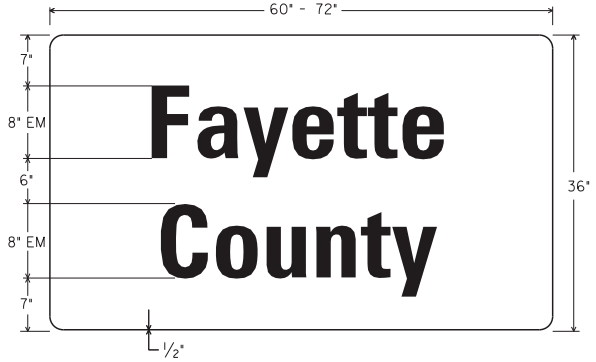
NOTE:
USE OF SIGN BRACING NOT SHOWN ON THIS SHEET MAY BE PERMITTED BY PROJECT ENGINEER AND/OR DISTRICT TRAFFIC ENGINEER.

NOT TO SCALE

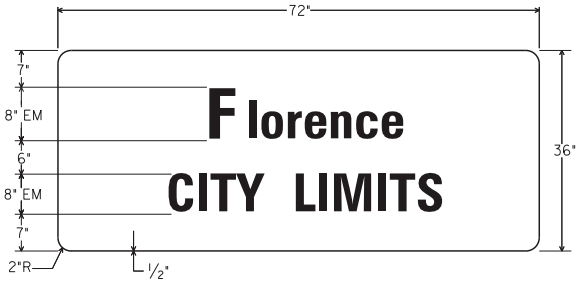
SHEETING SIGN DETAIL
SHEET 2 OF 2

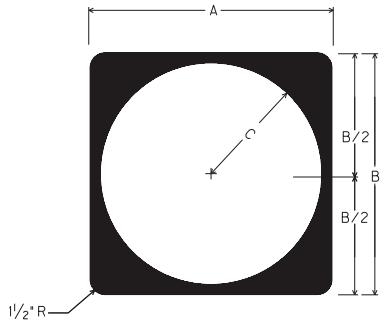
COUNTY OF	ITEM NO.	SHEET NO.

T-1



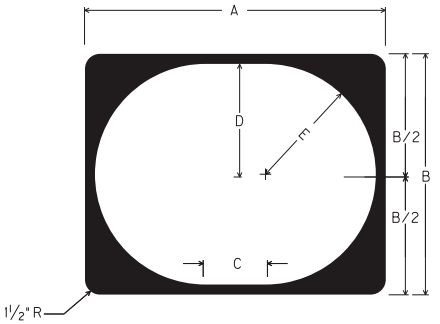
T-2





M1-5 (1 OR 2 DIGIT)

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



M1-5 (3 OR 4 DIGIT)

	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

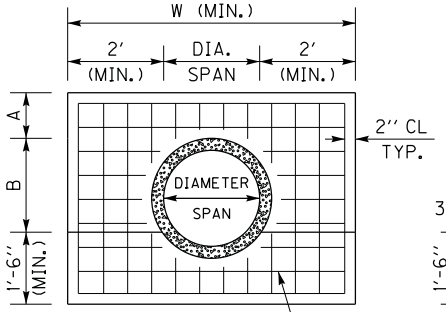
NOTE: FOR ROUTE MARKERS, IF NECESSARY, ADJUSTMENTS TO THE DIGIT LAYOUT AND/OR FONT TYPE MAY BE MADE TO ENSURE VISUAL ACUITY

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

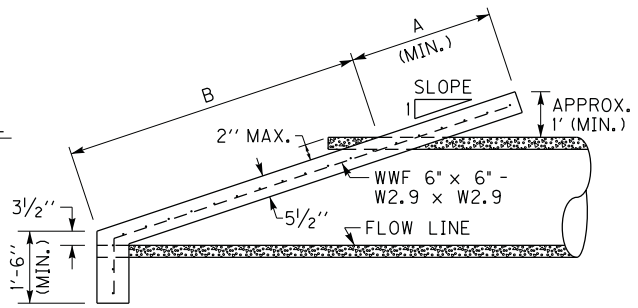
S-1

NOT TO SCALE

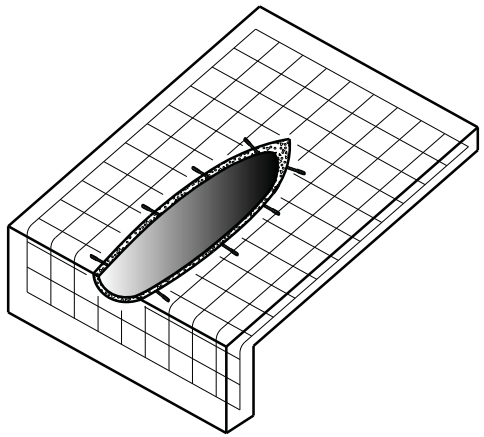
TYPICAL SIGNS



END ELEVATION
SHOWN WITH WOVEN WIRE REINFORCEMENT



SIDE ELEVATION
SHOWN WITHOUT GRATE



ISOMETRIC VIEW
SHOWN WITH WOVEN WIRE REINFORCEMENT AND WEDGE ANCHORS

COUNTY OF	ITEM NO.	SHEET NO.

~ NOTES ~

BID ITEM AND UNIT TO BID: 24575ES610 HEADWALL (SLOPED & MITERED CONCRETE-FOR _ INCH PIPE) - EACH

1. 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.
2. 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.
3. 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. NOTE: THE HEADWALL DIMENSIONS AND CONCRETE QUANTITIES MAY VARY BASED ON THE FINAL GRADED SLOPE, PIPE SKEW, AND/OR TYPE OF PIPE.
4. WOVEN WIRE REINFORCEMENT (WWF 6"x6" - W2.9xW2.9) IS REQUIRED FOR THE SLOPE PAVING AND TOE WALL. UTILIZE 2" CLEARANCE FROM ALL EDGES.
5. CONCRETE QUANTITIES SHOWN ARE FOR ONE (1) HEADWALL.
6. 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.

⑦ 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

8. 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

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"	0.74	4'	4'-8¾"	5'-3"	0.93	6'	6'-11¾"	5'-3"	1.29	NO
18"	3'	4'-5¾"	5'-6"	0.85	4'	5'-10"	5'-6"	1.05	6'	8'-7¼"	5'-6"	1.48	NO
24"	3'	6'-2½"	6'-0"	1.05	4'	8'-1"	6'-0"	1.32	6'	11'-11"	6'-0"	1.87	SEE ⑦
30"	3'	7'-10¾"	6'-6"	1.43	4'	10'-3¾"	6'-6"	1.80	6'	15'-2½"	6'-6"	2.28	SEE ⑦

NOTE: CONCRETE QUANTITIES ARE LISTED FOR IMFORMATIONAL PURPOSES ONLY.

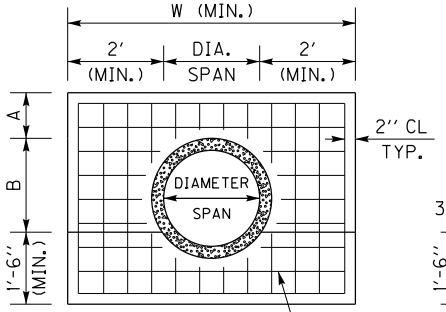
SEE SHEET 2 FOR DIMENSIONS OF HEADWALLS FOR PIPE OVER 30" DIAMETER

NOT TO SCALE

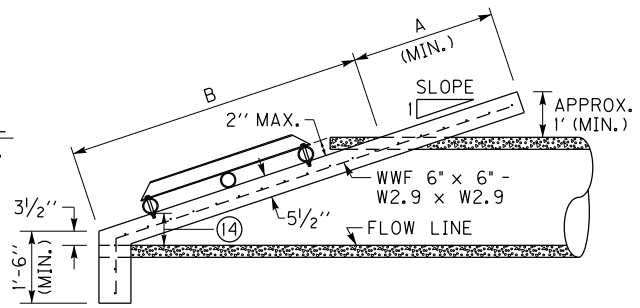
KENTUCKY DEPARTMENT OF HIGHWAYS

SLOPED & MITERED CONCRETE HEADWALL (SHEET 1 OF 2)

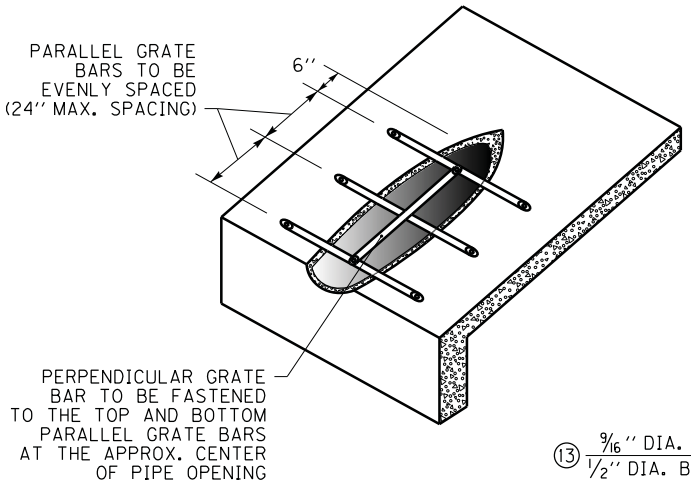
COUNTY OF	ITEM NO.	SHEET NO.



END ELEVATION
SHOWN WITH WOVEN WIRE REINFORCEMENT



SIDE ELEVATION
SHOWN WITH GRATE



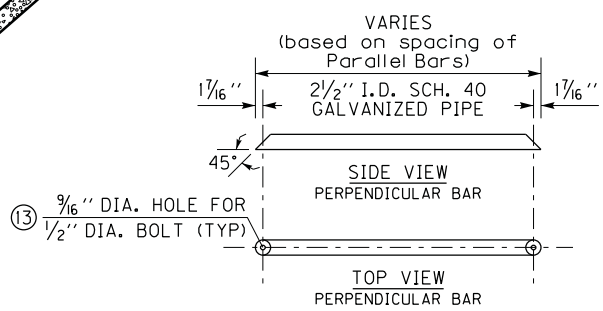
ISOMETRIC VIEW
SHOWING HEADWALL WITH GRATE

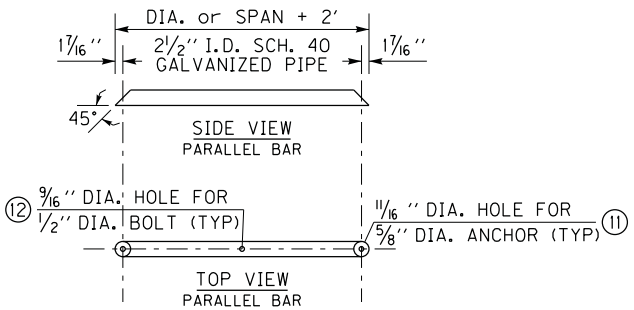
~ NOTES ~

BID ITEM AND UNIT TO BID: 24575ES610 HEADWALL (SLOPED & MITERED CONCRETE-FOR _ INCH PIPE) - EACH

SEE SHEET 1 FOR NOTES 1 THRU 5

7. 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
8. ALL BOLTS AND HARDWARE SHALL BE RUST RESISTANT: ZINC PLATED, STAINLESS STEEL, OR STEEL THAT HAS BEEN GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
9. 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.
10. ANY RAW METAL EXPOSED BY FIELD CUTTING AND/OR DRILLING SHALL BE TREATED WITH A COLD GALVANIZING COMPOUND.
⑪ FASTEN PARALLEL BARS TO HEADWALL WITH ⅝" DIA. x 4½" LENGTH STEEL WEDGE ANCHORS, MINIMUM EMBEDMENT = 2¾" HOLE SIZE AND DEPTH, TORQUE, & INSTALLATION PROCEDURES PER RECOMMENDATION OF ANCHOR MANUFACTURE
⑫ CENTER BOLT HOLE SHALL ONLY BE DRILLED IN THE TOP AND BOTTOM PARALLEL BARS.
⑬ FASTEN THE PERPENDICULAR BAR TO THE TOP AND BOTTOM PARALLEL BARS WITH ½" DIA. x 4" LENGTH HEX HEAD BOLTS, HEX HEAD NUTS, & FLAT WASHERS.
⑭ THE BOTTOM PARALLEL BAR IS TO BE PLACED SO THAT IT IS APPROX. 6" ABOVE THE FLOWLINE OF THE PIPE.





PIPE FOR GRATE DETAILS
SEE NOTE 6 TO DETERMINE IF GRATE IS REQUIRED

DIMENSIONS AND CONCRETE QUANTITIES													
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'-7½"	7'-0"	1.51	4'	12'-6½"	7'-0"	1.91	6'	18'-6"	7'-0"	2.42	YES
42"	3'	11'-4"	7'-6"	1.76	4'	14'-9¼"	7'-6"	2.23	6'	21'-9½"	7'-6"	3.19	YES

NOTE: CONCRETE QUANTITIES ARE LISTED FOR IMFORMATIONAL PURPOSES ONLY.

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

NOT TO SCALE

KENTUCKY DEPARTMENT OF HIGHWAYS

SLOPED & MITERED CONCRETE HEADWALL (SHEET 2 OF 2)

GUARDRAIL DELIVERY VERIFICATION SHEET

Contract Id: _____ **Contractor: _____**

Section Engineer: _____ **District & County: _____**

DESCRIPTION	UNIT	QTY LEAVING PROJECT	QTY RECEIVED@BB YARD
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_____

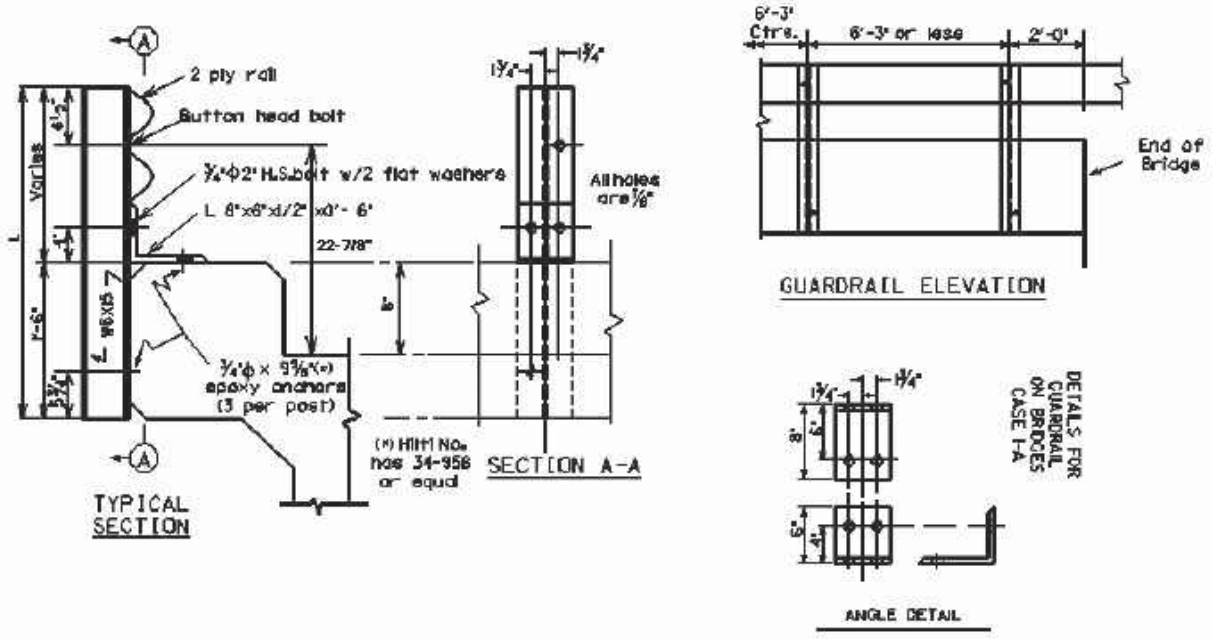
Printed Contractor's Representative_____& Date_____

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: _____

GUARDRAIL ON BRIDGE, CASE I-A
CURB HEIGHT GREATER THAN 2 INCHES



				On the Bridge
Bridge MP	L=	D=	No. Posts	LF of 2 PLY Rail
0.78	~43”-45”	10”	24	150
1.41	~47”-49”	10”	12	75
1.98	~42”-44”	11”	6	50

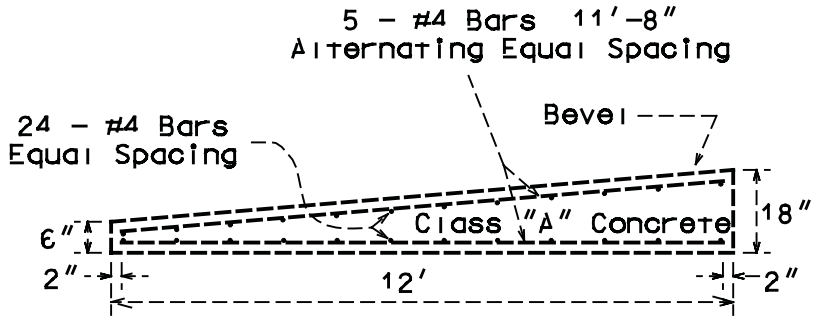
L = Length of Guardrail Post D = Curb Height W = Width of Bridge Curb

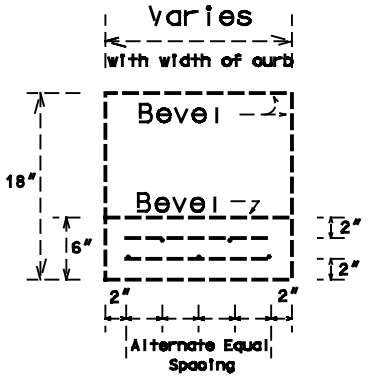
WARRANTS: When the dimension from the top of the existing riding surface to the top of the curb is greater than 2 inches and where the clear distance between the faces of the guardrail is less than 20 feet or the curb width is less than 18 inches, remove existing concrete and/or guardrail bridge rail and use Case I-A Bridge Guardrail.

NOTES: 1. When using Case I-A Bridge Guardrail, do not pave the bridge surface flush to the top of the curb.

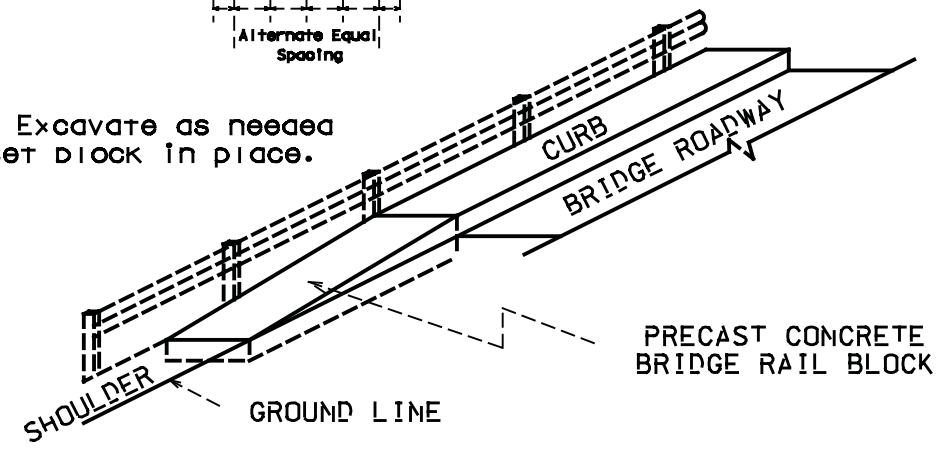
2. When Case I-A Bridge Guardrail is used, use a Precast Concrete Bridge Block at the ends of the bridge which face opposing traffic. See detail drawing for Precast Concrete Bridge Block.

PRECAST CONCRETE BRIDGE RAIL BLOCK



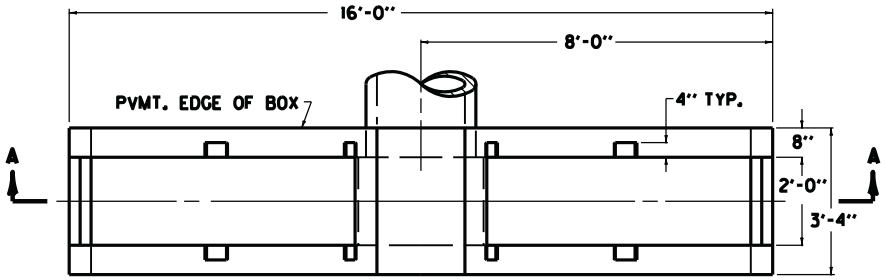


Note: Excavate as needed to set block in place.

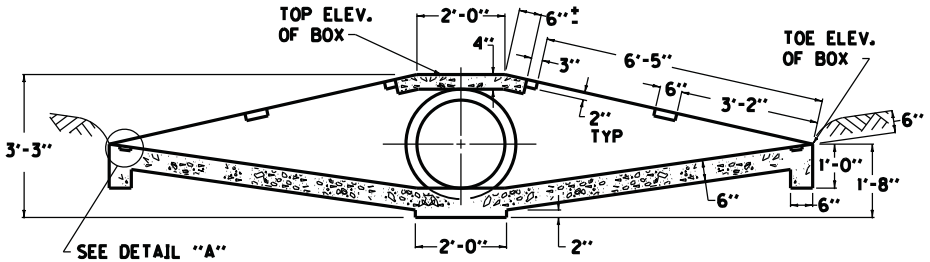


NOTE: ALL EXPOSED EDGES SHALL BE BEVELED 3/4"

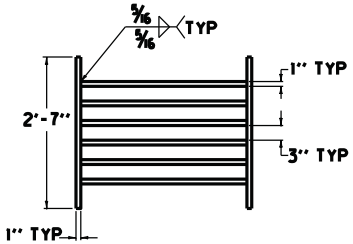
COUNTY OF	ITEM NO.	SHEET NO.



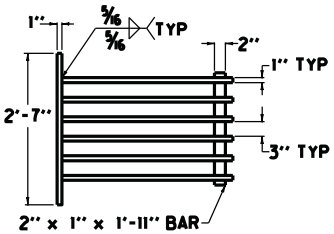
PLAN VIEW



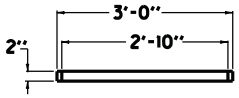
SECTION A-A



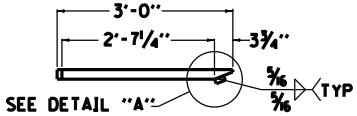
GRATE NO. 1
PLAN VIEW



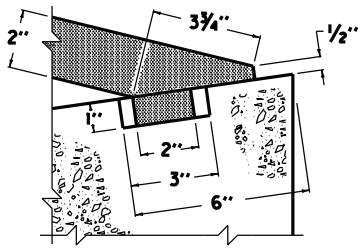
GRATE NO. 2
PLAN VIEW



GRATE NO. 1
SIDE ELEVATION



GRATE NO. 2
SIDE ELEVATION



DETAIL "A"

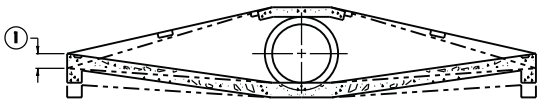
NOTES

ITEM CODE	BID ITEM	UNIT
1728	SAFETY BOX INLET-18 IN DBL SDB-5	EACH
1729	SAFETY BOX INLET-24 IN DBL SDB-5	EACH

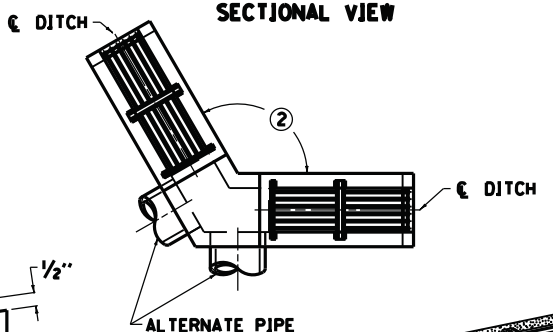
THE UNIT BID FOR EACH STRUCTURE SHALL INCLUDE ALL CONCRETE, STRUCTURAL STEEL GRATING, EXCAVATION, LABOR AND INCIDENTALS NECESSARY FOR ITS CONSTRUCTION AS DETAILED ON THIS SHEET.

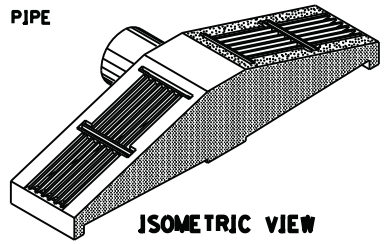
(1) TOE OF BOX SHALL BE RAISED OR LOWERED TO FIT EXISTING FIELD CONDITIONS.

(2) ANGLE BETWEEN BOX WALLS MAY VARY TO FIT EXISTING FIELD CONDITIONS.



SECTIONAL VIEW





ISOMETRIC VIEW

APPROXIMATE QUANTITIES			
CLASS "A" CONC.	GRATE	LBS. STRUCTURAL STEEL	
CUBIC YARDS	NUMBER	EACH GRATE	TOTAL POUNDS
2.07	1	145	596
	2	153	

N/A

DBL SAFETY BOX INLET DETAIL SHEET

MicroStation v8.11.7.443
E-SHEET NAME:
USER: Patrick.Stone
DATE PLOTTED: September 24, 2013
FILE NAME: G:\USERS\PATRICK.STONE\APPDATA\LOCAL\MICROSOFT\WINDOWS\TEMPORARY INTERNET FILES\CONTENT.OUTLOOK\Y0843LNA\SAFETY BOX.DGN

SPECIAL NOTE FOR PRE-BID CONFERENCE
CID 18-4001
McCracken County
Safety Improvements along KY 1954 from MP 0.0 to MP 3.09

The Department will conduct a mandatory Pre-Bid Conference of the subject project on January 17th, 2018 at 9:00 a.m. Central Zone Time at:

Department of Highways, District One
5501 Kentucky Dam Road
Paducah, KY 42003
Phone (270) 898-2431

Any company that is interested in bidding on the subject project or being part of a joint venture must be represented at the conference by at least **one person of sufficient authority to bind the company**. No individual can represent more than one company. At the conference, the Department will take a roster of the representatives present. **Only companies represented at the conference will be eligible to have their bids opened at the date of letting.**

The purpose of the conference is to familiarize all prospective bidders with the contract requirements of the Contract.

Department of Highways officials will be present at the conference to answer questions concerning the project.

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

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 2012* and *Standard Drawings, Edition of 2016.*

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

1I

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.

1I

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/⇒⇒⇒/
/KEEP/LEFT/⇐⇐⇐/
/LOOSE/GRAVEL/AHEAD/
/RD WORK/NEXT/**MILES/
/TWO WAY/TRAFFIC/AHEAD/
/PAINT/CREW/AHEAD/
/REDUCE/SPEED/**MPH/
/BRIDGE/WORK/***0 FT/
/MAX/SPEED/**MPH/
/SURVEY/PARTY/AHEAD/
/MIN/SPEED/**MPH/
/ICY/BRIDGE/AHEAD/ /ONE LANE/BRIDGE/AHEAD/
/ROUGH/ROAD/AHEAD/
/MERGING/TRAFFIC/AHEAD/
/NEXT/***/MILES/
/HEAVY/TRAFFIC/AHEAD/
/SPEED/LIMIT/**MPH/
/BUMP/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

1I

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:

Code	Pay Item	Pay Unit
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

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 2012 Standard Specifications for Road and Bridge Construction.

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).

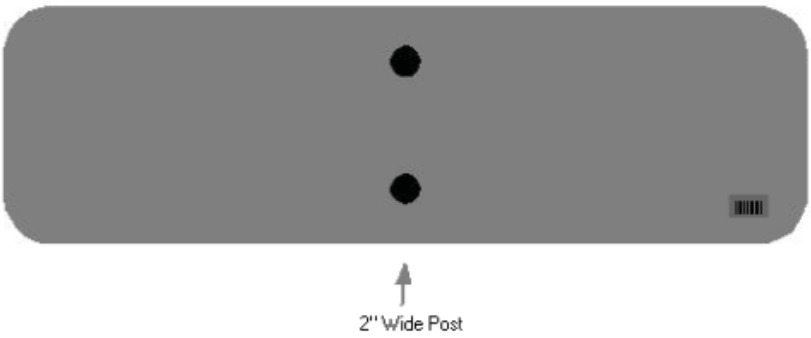
The installation of the permanent sign will be measured in accordance to Section 715.

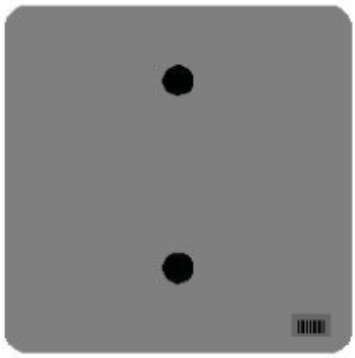
5.0 PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Pay Unit
24631EC	Barcode Sign Inventory	Each

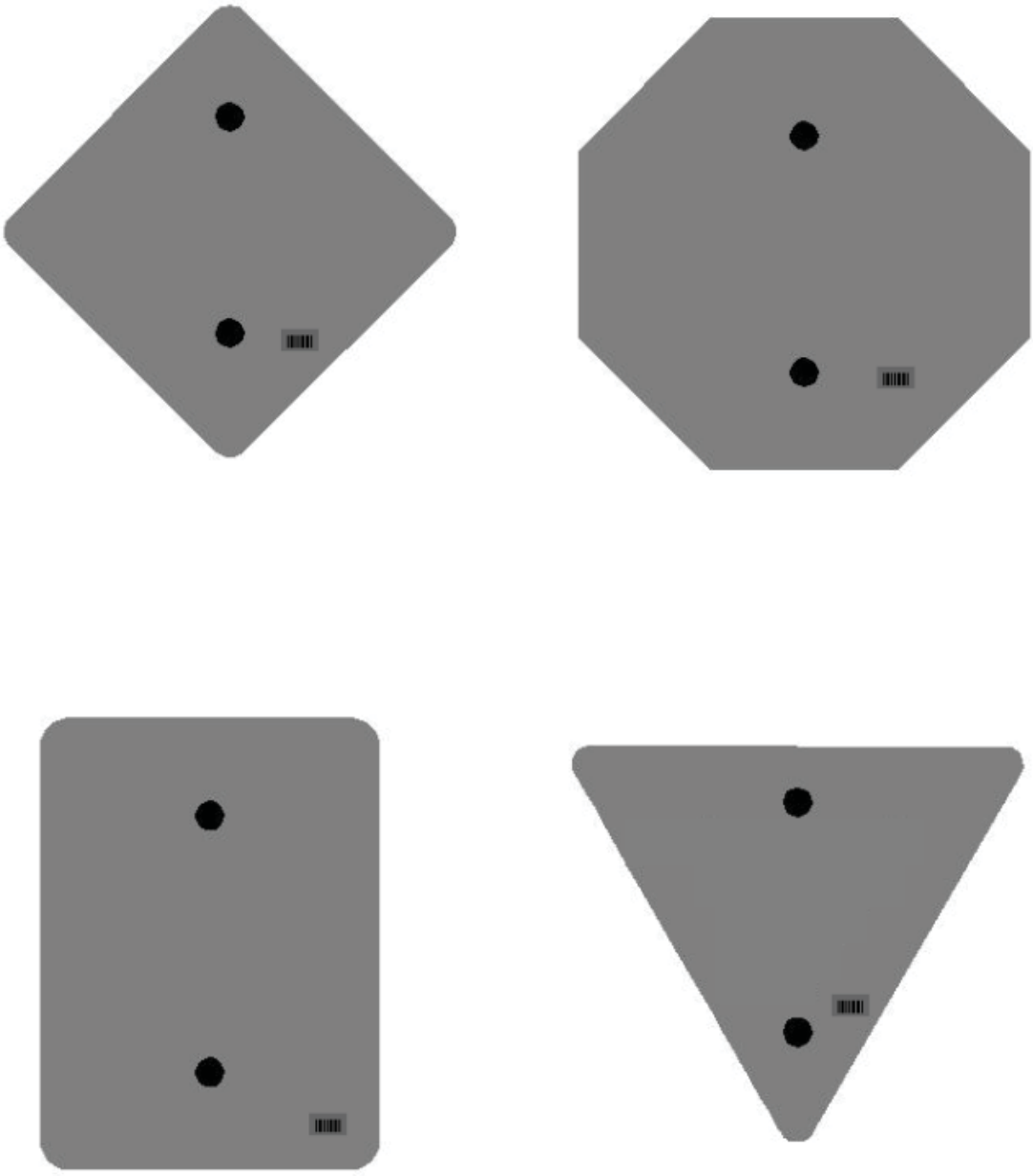
The Department will not make payment for this item until all barcodes are installed and sign inventory is complete on every permanent sign installed on the project. The Department will make payment for installation of the permanent sign in accordance to Section 715. The Department will consider payment as full compensation for all work required under this special note.

One Sign Post

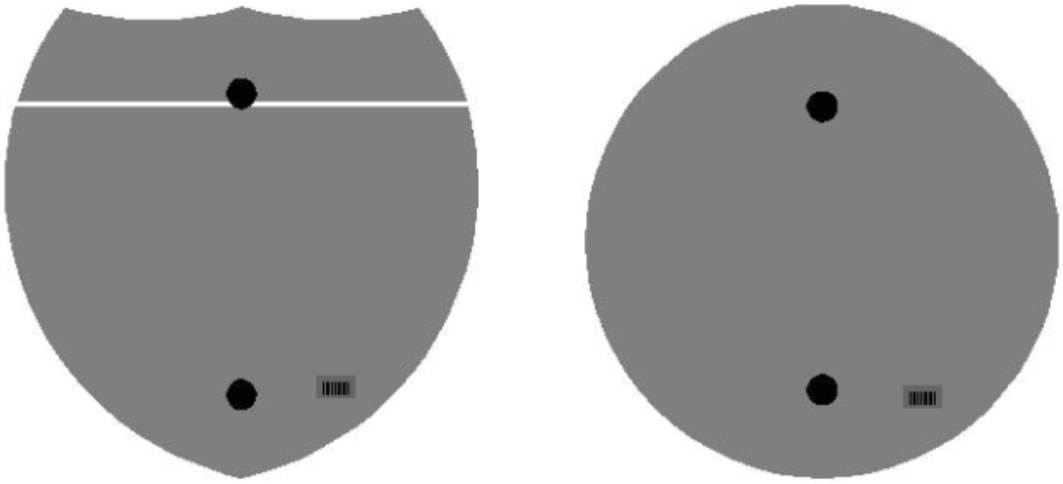


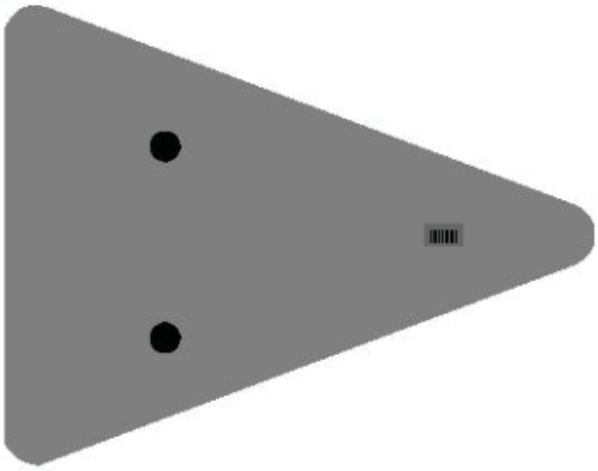


One Sign Post

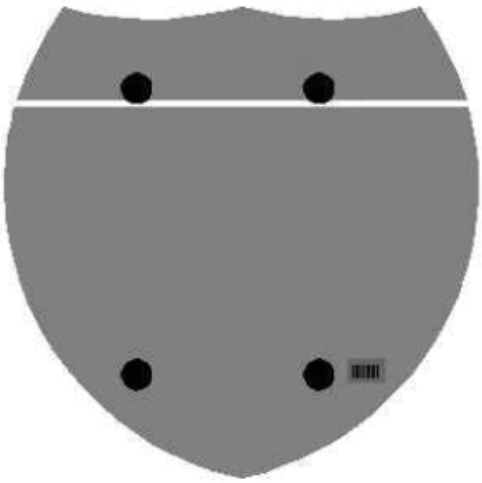


One Sign Post

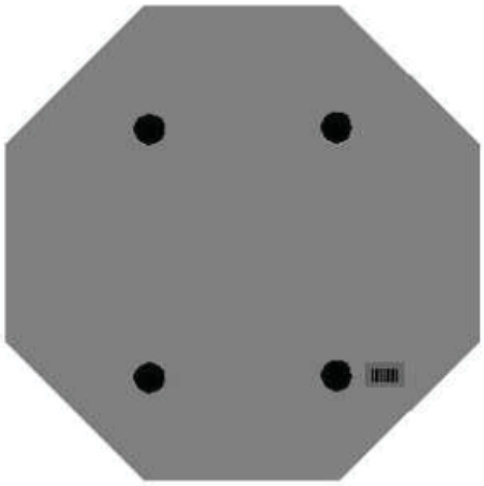




Double Sign Post

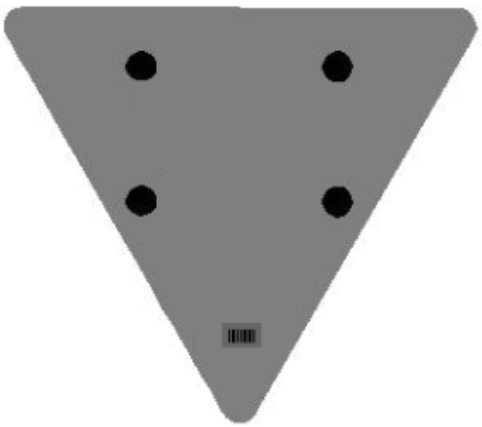


Interstate
Shield



48" Stop

2 Post Signs



2016 STANDARD DRAWINGS THAT APPLY

ROADWAY

~ DRAINAGE ~

BOX INLETS AND OUTLETS

METAL END SECTION TYPE 3 & 4 (CROSS STRUCTURES).....RDB-155-02
DIMENSIONS FOR METAL END SECTIONS.....RDB-160-02

PAVED DITCHES, FLUME INLETS AND CHANNEL LININGS

CHANNEL LINING CLASS II AND III..... RDD-040-05

TYPICAL DRAINAGE INSTALLATIONS

CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS (12” – 24” PIPE).....RDI-001-10
CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS (27” – 42” PIPE).....RDI-002-05
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS (60” – 66” PIPE).....RDI-004-04
PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER PIPE.....RDI-020-09
PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER, REINFORCED CONC. PIPE.....RDI-021-01
PIPE BEDDING, TRENCH CONDITION.....RDI-025-05
PIPE BEDDING, TRENCH CONDITION, REINFORCED CONC. PIPE.....RDI-026-01
EROSION CONTROL BLANKET SLOPE INSTALLATION RDI-040-01
EROSION CONTROL BLANKET CHANNEL INSTALLATION.....RDI-041-01

MISCELLANEOUS DRAINAGE

INTERMEDIATE AND END ANCHORS FOR CIRCULAR PIPE..... RDX-060-04
TEMPORARY SILT FENCE RDX-210-03
TEMPORARY SILT FENCE WITH WOVEN WIRE FENCE FABRIC RDX-215-01
SILT TRAP - TYPE A RDX-220-05
SILT TRAP - TYPE B RDX-225-01
SILT TRAP - TYPE C RDX-230-01

~ GENERAL ~

CURVE WIDENING AND SUPERELEVATION

CURVE WIDENING AND SUPERELEVATION TRANSITIONS.....RGS-001-07

MISCELLANEOUS STANDARDS

MISCELLANEOUS STANDARDS PART 1..... RGX-001-06
RIGHT OF WAY MONUMENTS..... RGX-005-06
TYPICAL EMBANKMENT FOUNDATION BENCHES..... RGX-010-04
TYPE D BREAKAWAY SIGN SUPPORT..... RGX-065-02

~ PAVEMENT ~

MEDIANS, CURBS, APPROACHES, ENTRANCES, ETC.

APPROACHES, ENTRANCES, AND MAIL BOX TURNOUT..... RPM-110-07

Standard Drawings That Apply
Page 2 of 2

TRAFFIC
~ *TEMPORARY* ~
TRAFFIC CONTROL

LANE CLOSURE TWO-LANE HIGHWAY TTC-100-04

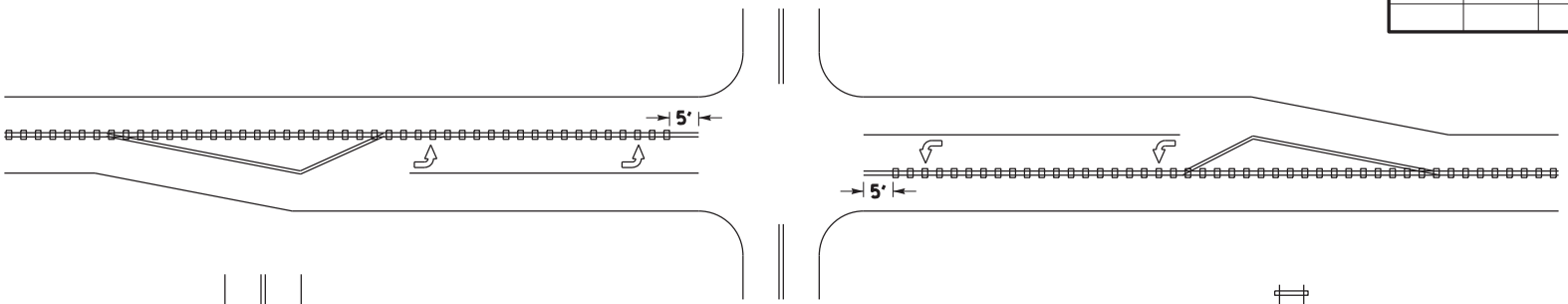
DEVICES

PAVEMENT CONDITION WARNING SIGNS TTD-125-02

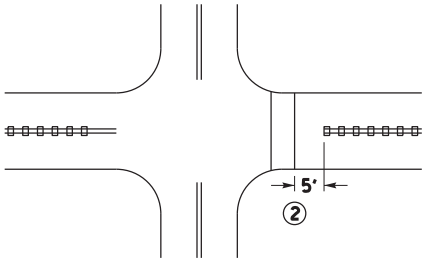
STRIPING OPERATIONS

MOBILE OPERATION FOR PAINT STRIPING CASE II TTS-105-02
MOBILE OPERATION FOR DURABLE STRIPING CASE IV TTS-135-02

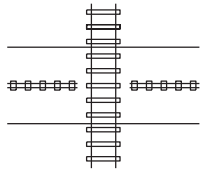
COUNTY OF	ITEM NO.	SHEET NO.



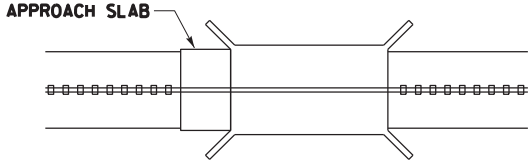
INTERSECTIONS WITH LEFT-TURN LANES (1)



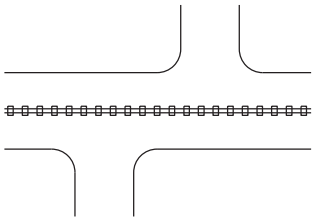
INTERSECTIONS WITHOUT LEFT-TURN LANES (1)



HIGHWAY-RAIL GRADE CROSSINGS (3)



BRIDGE DECK/APPROACH SLAB (4)



DRIVEWAYS/MINOR
COMMERCIAL ENTRANCES (5)

~ NOTES ~

(1) CENTERLINE RUMBLE STRIPS SHALL BE OMITTED THROUGH MAJOR INTERSECTIONS WITH, OR WITHOUT, LEFT-TURN LANES. OMIT THE CENTERLINE RUMBLE STRIPS APPROXIMATELY 5' IN ADVANCE OF THE AREA WHERE THE CENTERLINE PAVEMENT MARKINGS HAVE BEEN OMITTED (NORMALLY WHERE SIDE STREET RADIUS INTERSECTS MAINLINE).

(2) CENTERLINE RUMBLE STRIPS SHALL NOT BE INSTALLED THROUGH MARKED CROSSWALKS. OMIT THE CENTERLINE RUMBLE STRIPS APPROXIMATELY 5' IN ADVANCE OF MARKED CROSSWALKS.

(3) CENTERLINE RUMBLE STRIPS SHALL NOT BE INSTALLED ACROSS HIGHWAY-RAIL GRADE CROSSINGS.

(4) CENTERLINE RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS OR APPROACH SLABS.

(5) CENTERLINE RUMBLE STRIPS SHALL BE INSTALLED THROUGH DRIVEWAYS & MINOR COMMERCIAL ENTRANCES.

6. CENTERLINE RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS, OR WHERE LANE WIDTHS ARE LESS THAN 11 FT.

BID ITEM AND UNIT TO BID
CENTERLINE RUMBLE STRIPS LF

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS.
TPM-155 AND TPM-160

KENTUCKY
DEPARTMENT OF HIGHWAYS

CENTERLINE RUMBLE STRIPS

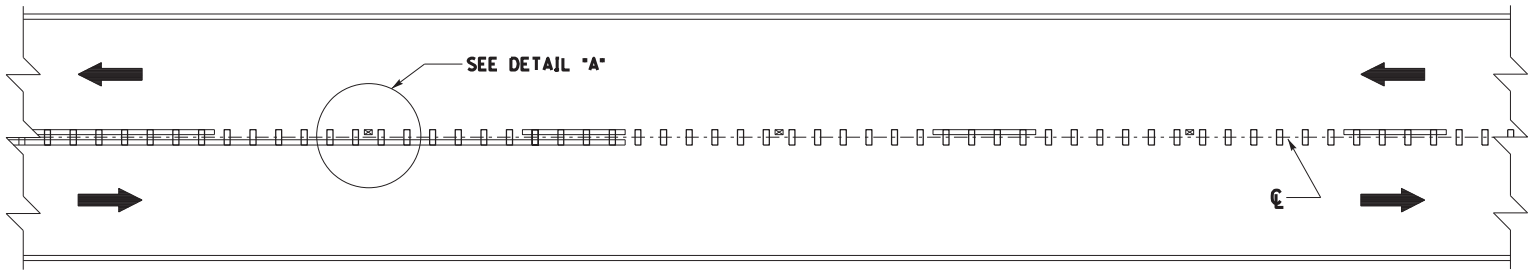
SUBMITTED B. Jeffrey Wolfe 11-23-16
DATE

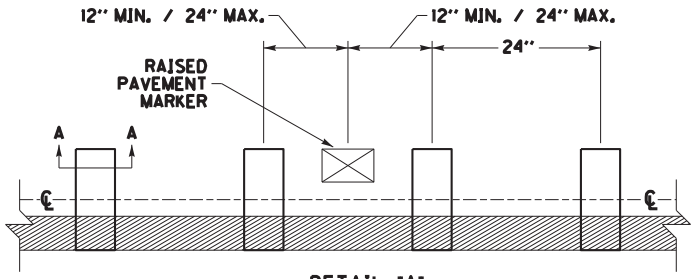
002

FILE NAME: C:\USERS\JEFF.LAU\DESKTOP\SEPIA 002 - TPM150 - CENTERLINE RUMBLE STRIPS.DGN
USER: jeffLau
DATE PLOTTED: December 2, 2016
E-SHEET NAME: ——
MicroStation v8.11.7.443

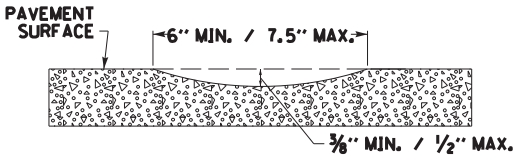
COUNTY OF	ITEM NO.	SHEET NO.

PLAN VIEW

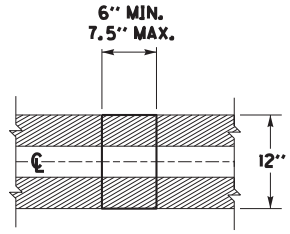




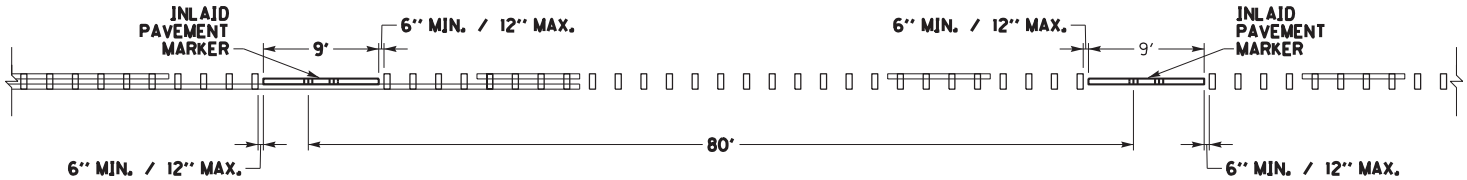
DETAIL "A"



SECTION A-A



RUMBLE STRIP DETAIL



DETAIL FOR CENTERLINE RUMBLE STRIPS WITH INLAID PAVEMENT MARKERS

~ NOTES ~

1. DISTANCES SHOWN ARE APPROXIMATE. MAINTAIN RUMBLE STRIP DIMENSIONS AND SPACING AS MUCH AS POSSIBLE.
2. CENTERLINE RUMBLE STRIPS SHALL BE INSTALLED IN LINE WITH THE CENTER OF THE ROADWAY AS MUCH AS POSSIBLE.
3. DISCONTINUE CENTERLINE RUMBLE STRIPS AT LEAST 12" BEFORE AND AFTER THE CENTER OF EACH RAISED PAVEMENT MARKER, AND AT LEAST 6" BEFORE AND AFTER THE GROOVE FOR EACH INLAID PAVEMENT MARKER. INSTALL AS MANY RUMBLE STRIPS AS POSSIBLE BETWEEN ADJACENT PAVEMENT MARKERS WHILE MAINTAINING THE 24" CYCLE.
4. DO NOT INSTALL CENTERLINE RUMBLE STRIPS IN AREAS INDICATED ON TPM-150.
5. CENTERLINE RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS, OR WHERE LANE WIDTHS ARE LESS THAN 11 FT.

BID ITEM AND UNIT TO BID
CENTERLINE RUMBLE STRIPS LF

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWG. TPM-150

KENTUCKY
DEPARTMENT OF HIGHWAYS

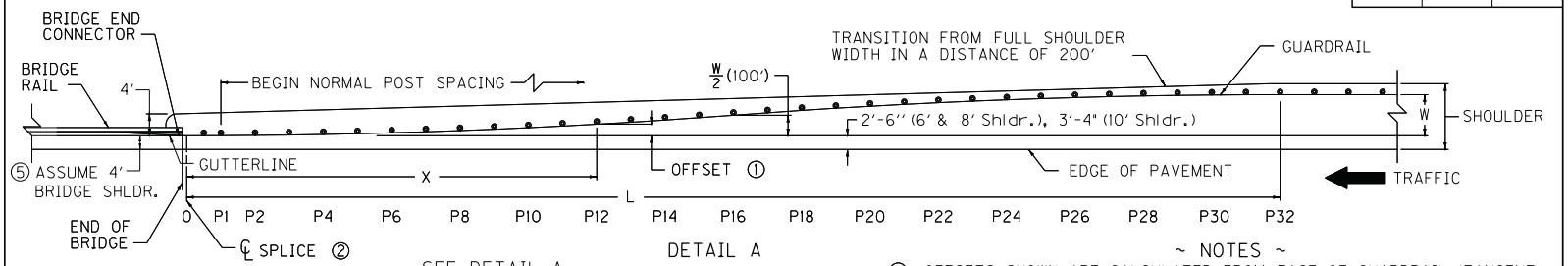
CENTERLINE
RUMBLE STRIPS
4 INCH STRIPING

SUBMITTED B. Jeffrey Wolfe 11-23-16
DATE

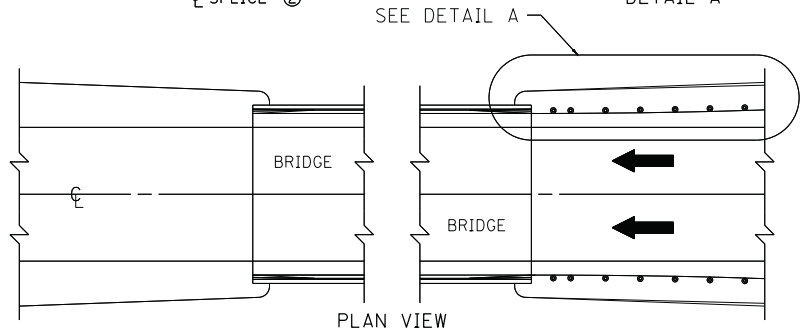
003

MicroStation v8.11.7.443 | E-SHEET NAME: — | USER: jeffjull DATE PLOTTED: December 2, 2016 | FILE NAME: C:\USERS\JEFF.LAU\DESKTOP\SEPIA 003 - TPM155 - CENTERLINE RUMBLE STRIPS 4 INCH STRIPING.DGN

COUNTY OF	ITEM NO.	SHEET NO.



DETAIL A



PLAN VIEW

~ NOTES ~

① OFFSETS SHOWN ARE CALCULATED FROM FACE OF GUARDRAIL (TANGENT EXTENDED FROM BRIDGE). OFFSET DIMENSIONS SHOWN ARE FOR 6 FOOT USABLE SHOULDERS, WITH W EQUAL TO 7.5 FEET.

② DISTANCES ARE FROM CENTER LINE OF SPLICE. SEE CURRENT STANDARD DRAWING RBC-002 FOR DETAILS.

3. CALCULATIONS FROM 0 FEET TO 100 FEET ARE BASED ON THE FOLLOWING FORMULA: OFFSET $= \left(\frac{X}{L/2}\right)^2 \times \frac{W}{2}$
FROM 100 FEET TO 200 FEET THE PROCEDURE IS AS FOLLOWS, FOR EXAMPLE AT P28: 7.5 FEET MINUS 0.23 FEET = 7.27 FEET, ETC.

4. THE ENGINEER SHALL USE THE OFFSET FORMULA AND CALCULATE OFFSETS NEEDED FOR FIELD CONDITIONS DIFFERENT THAN THAT SHOWN IN THE CHART.

⑤ BRIDGE SHOULDER WIDTH VARIES PER KYTC & AASHTO GUIDANCE.

6' USABLE SHOULDER
GUARDRAIL FLARE DIMENSIONS

POST NUMBER	DISTANCE (FEET)	OFFSET (FEET)
0	0	0
P1	6.25	0.01
P2	12.5	0.02
P4	25.0	0.08
P6	37.5	0.19
P8	50.0	0.34
P10	62.5	0.52
P12	75.0	0.75
P14	87.5	1.03
P16	100.0	1.34
P18	112.5	1.64
P20	125.0	1.92
P22	137.5	2.15
P24	150.0	2.33
P26	162.5	2.48
P28	175.0	2.59
P30	187.5	2.65
P32	200.0	2.67

8' USABLE SHOULDER
GUARDRAIL FLARE DIMENSIONS

POST NUMBER	DISTANCE (FEET)	OFFSET (FEET)
0	0	0
P1	6.25	0.01
P2	12.5	0.04
P4	25.0	0.15
P6	37.5	0.33
P8	50.0	0.59
P10	62.5	0.91
P12	75.0	1.32
P14	87.5	1.79
P16	100.0	2.34
P18	112.5	2.88
P20	125.0	3.35
P22	137.5	3.76
P24	150.0	4.08
P26	162.5	4.34
P28	175.0	4.52
P30	187.5	4.63
P32	200.0	4.67

10' USABLE SHOULDER
GUARDRAIL FLARE DIMENSIONS

POST NUMBER	DISTANCE (FEET)	OFFSET (FEET)
0	0	0
P1	6.25	0.01
P2	12.5	0.05
P4	25.0	0.21
P6	37.5	0.47
P8	50.0	0.84
P10	62.5	1.30
P12	75.0	1.88
P14	87.5	2.56
P16	100.0	3.34
P18	112.5	4.11
P20	125.0	4.79
P22	137.5	5.37
P24	150.0	5.83
P26	162.5	6.20
P28	175.0	6.46
P30	187.5	6.62
P32	200.0	6.67

USE WITH CUR. STD. DWG. RBC-002

KENTUCKY DEPARTMENT OF HIGHWAYS

GUARDRAIL TRANSITION FROM NORMAL SHOULDER TO NARROW BRIDGE

SUBMITTED William S. Haddad — DIRECTOR DIVISION OF DESIGN — DATE 11-17-17

012

COUNTY OF	ITEM NO.	SHEET NO.
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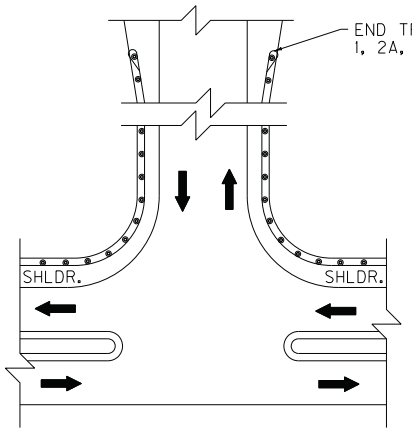
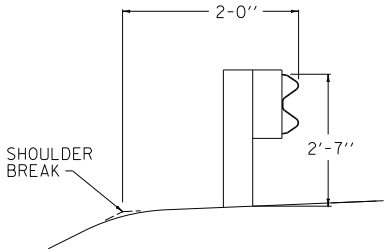


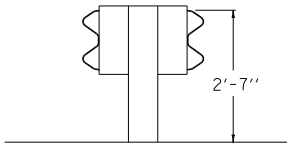
APPROACH ROADS

~ NOTES ~

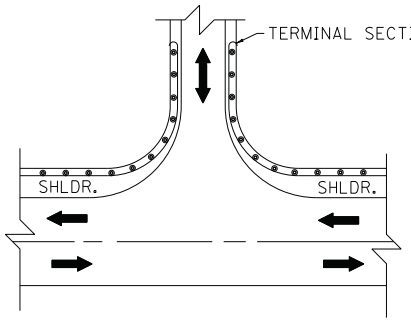
1. FOR END TREATMENT TYPE 4A USE CUR. STD. DWG. RBR-035 FOR OFFSETS.
2. THE MINIMUM LENGTH OF GUARDRAIL, INCLUDING THE END TREATMENT, PRECEDING A FIXED OBJECT IS 200 FEET: (LENGTH MAY BE REDUCED SHOULD FIELD CONDITIONS WARRANT).



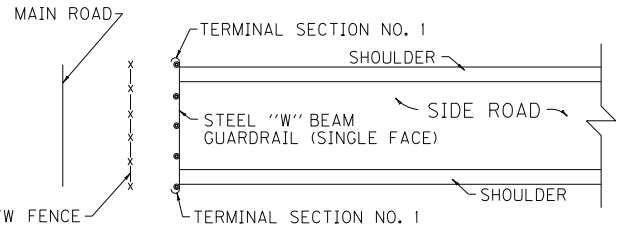
NORMAL GUARDRAIL INSTALLATION



TYPICAL DOUBLE FACE
GUARDRAIL INSTALLATION



ENTRANCES



GUARDRAIL USED AS A BARRICADE

USE WITH CUR. STD. DWG.
RBI-002, RBR-035

KENTUCKY
DEPARTMENT OF HIGHWAYS

TYPICAL GUARDRAIL
INSTALLATIONS

SUBMITTED William S. Ballard 11-17-17
DIRECTOR DIVISION OF DESIGN DATE

024

COUNTY OF	ITEM NO.	SHEET NO.
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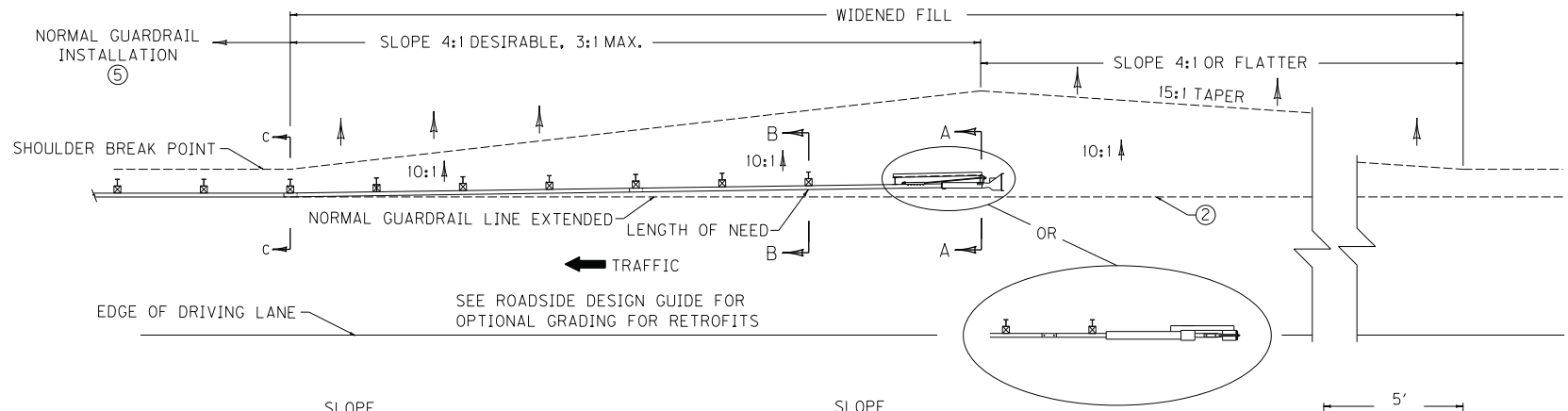
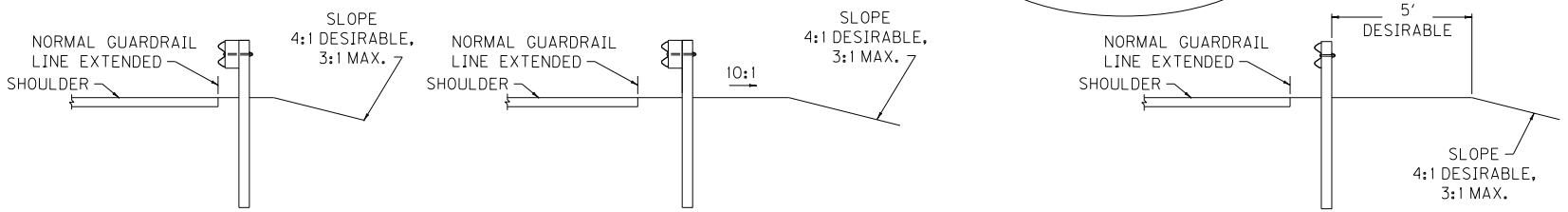




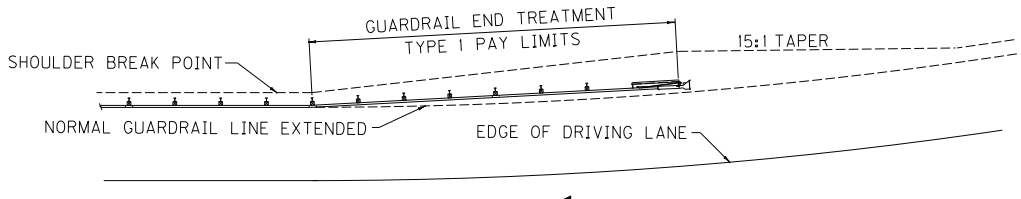
SECTION C-C SECTION B-B SECTION A-A

~ NOTES ~

BID ITEMS AND UNIT TO BID:

GUARDRAIL END TREATMENT TYPE 1	EACH
ROADWAY OR BORROW EXCAVATION, OR EMBANKMENT IN PLACE	CUYD

1. THE MINIMUM LENGTH OF GUARDRAIL, INCLUDING THE END TREATMENT, PRECEDING A FIXED OBJECT IS 200 FEET (LENGTH MAY BE REDUCED SHOULD FIELD CONDITIONS WARRANT).
② GUARDRAIL EXTRUDER EDGE CLOSEST TO TRAFFIC SHALL BE PLACED ON NORMAL GUARDRAIL LINE EXTENDED.
③ END TREATMENT TYPE 1 MAY BE ATTACHED TO CURVED GUARDRAIL PROVIDED CURVE IS A 550' RADIUS OR MORE. END TREATMENT TYPE 1 SHALL BE INSTALLED ON A STRAIGHT LINE TAPER WITHIN THE PAY LIMITS.
4. INTENDED USE: FILLS WITH ADEQUATE VEHICLE RECOVERY ZONE BEHIND GUARDRAIL.
⑤ FOR MAINTENANCE AND REPAIR PROJECTS, USE "GUARDRAIL SYSTEM TRANSITION "SEPIA 33", TO TRANSITION BACK TO 27" OR 29" GUARDRAIL HEIGHT, IF ONLY THE TERMINAL IS PROPOSED TO BE REPLACED.



GUARDRAIL END TREATMENT TYPE 1
INSTALLED ON A CURVE ③

USE WITH CUR. STD. DWG. RBR-020

KENTUCKY DEPARTMENT OF HIGHWAYS

INSTALLATION OF GUARDRAIL END TREATMENT TYPE 1

SUBMITTED William S. Ballard 11-17-17
DIRECTOR DIVISION OF DESIGN DATE

025

COUNTY OF	ITEM NO.	SHEET NO.
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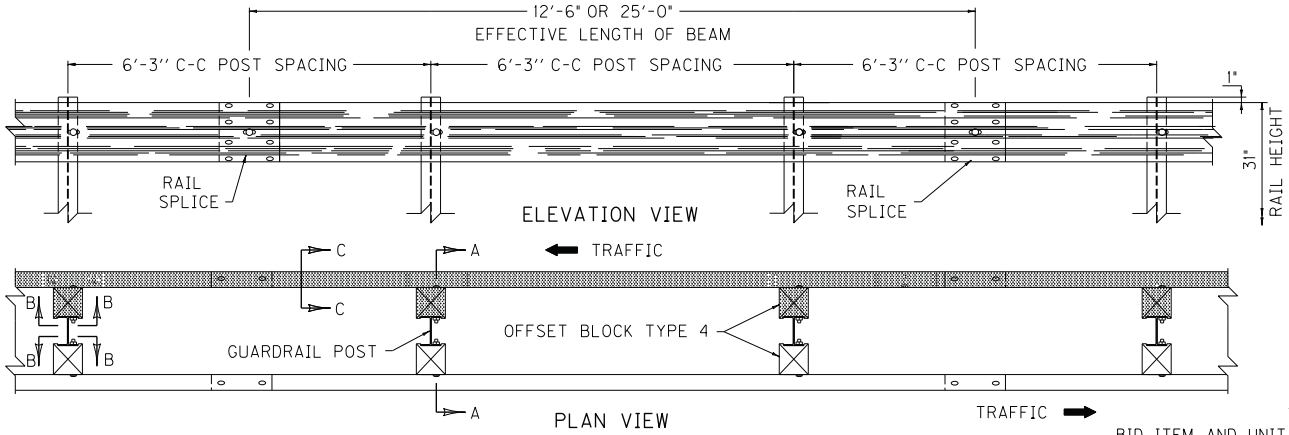
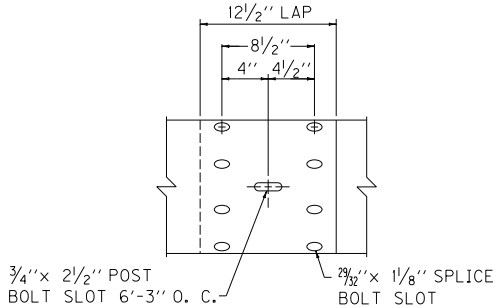
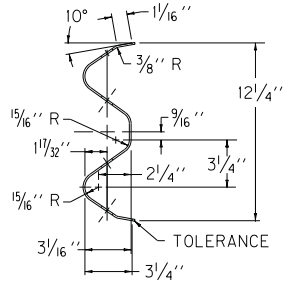


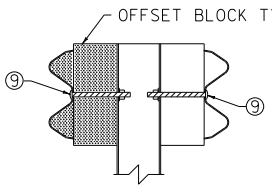
SECTION B-B



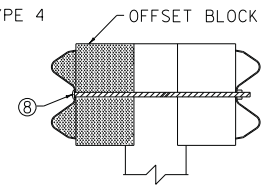
RAIL SPLICE ⑤



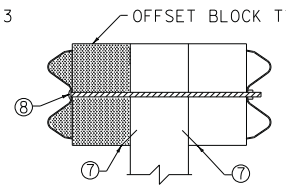
SECTION C-C
(RAIL CORRUGATED SHEET STEEL BEAM)



SECTION A-A
DOUBLE FACE RAIL WITH STEEL POST (W6x9) (TIMBER OR APPROVED COMPOSITE OFFSET BLOCK)



SECTION A-A
DOUBLE FACE RAIL WITH ROUND TIMBER POST



SECTION A-A
DOUBLE FACE RAIL WITH TIMBER POST

~ NOTES ~

BID ITEM AND UNIT TO BID
GUARDRAIL-STEEL W BEAM-S FACE LF
OR
GUARDRAIL-STEEL W BEAM-D FACE LF

1. DIMENSIONAL TOLERANCES NOT SHOWN OR IMPLIED ARE INTENDED TO BE THOSE CONSISTENT WITH THE PROPER FUNCTIONING OF THE PART, INCLUDING ITS APPEARANCE AND ACCEPTED MANUFACTURING PRACTICES.
2. THE RAIL ELEMENT SHALL COMPLY WITH AASHTO M-180 -CLASS A, TYPE II.
3. ALL LAPS SHALL BE PLACED IN THE DIRECTION OF TRAFFIC FLOW.

④ TOLERANCE + 1¼", -¼"

⑤ 8-⅝"× 1¼" LONG BUTTON HEAD BOLTS AND HEX HEAD RECESS NUTS REQUIRED FOR EACH RAIL SPLICE.

⑥ LENGTH EQUALS POST AND BLOCK WIDTH PLUS 2" FOR BOLT OR 2¼" FOR THREADED ROD.

⑦ GALVANIZED STEEL 10d COMMON COATED NAIL (DRIVE NAIL AT THE TOP OR BOTTOM CENTER OF BLOCK AND POST AFTER BOLT IS INSTALLED).

⑧ ⅝"× ⑥ STEEL THREADED ROD AND TWO (2) HEX HEAD NUTS OR ⅝"× ⑥ BUTTON OR HEX HEAD BOLT AND HEX HEAD NUT.

⑨ ⅝"×8" BUTTON HEAD BOLT, HEX HEAD RECESS NUT AND ONE ⅝" ROUND WASHER (TYP.). BOLT SHALL HAVE A MINIMUM THREAD LENGTH OF 2".

▨ REQUIRED FOR DOUBLE RAIL

10. BOTH 12'-6" AND 25' LENGTHS OF "W" BEAM GUARDRAIL SECTIONS WILL BE PERMITTED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

KENTUCKY DEPARTMENT OF HIGHWAYS

STEEL BEAM GUARDRAIL ("W" BEAM)

SUBMITTED William S. Ballard 11-17-17
DIRECTOR DIVISION OF DESIGN DATE

027

COUNTY OF	ITEM NO.	SHEET NO.
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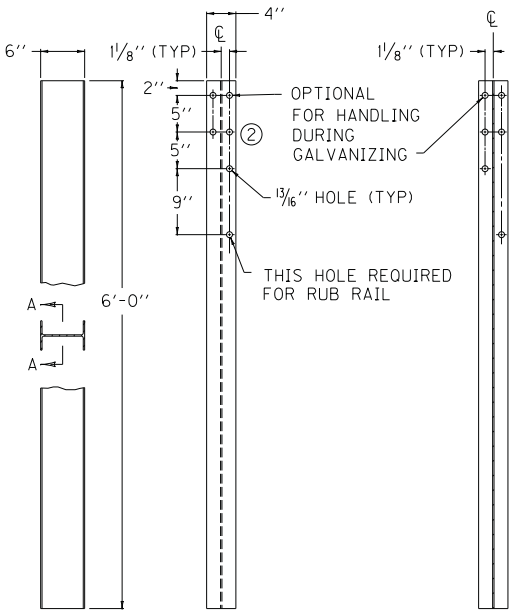


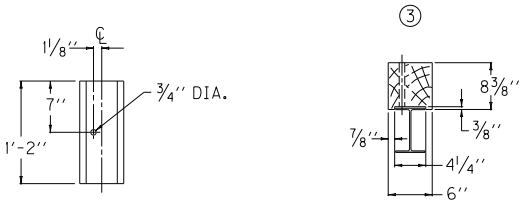
~ W6 X 9.0 STEEL POST ① ~

~ NOTES ~

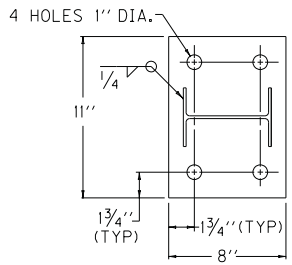
① W6 X 8.5 IS AN ACCEPTABLE ALTERNATE.

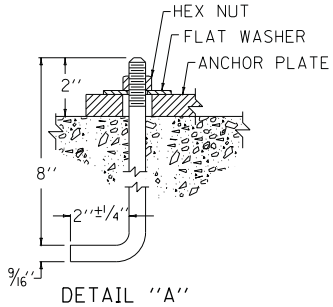
② THESE HOLES ARE REQUIRED FOR ATTACHING RAIL.

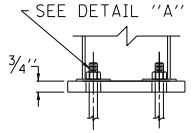
③ TIMBER OR COMPOSITE BLOCKOUTS MAY BE USED WITH STEEL POST.



OFFSET BLOCK TYPE 4
(TIMBER OR APPROVED COMPOSITE)
(FOR USE WITH STEEL POST ONLY)







KENTUCKY DEPARTMENT OF HIGHWAYS

STEEL
GUARDRAIL POSTS

SUBMITTED William S. Stallard
DIRECTOR DIVISION OF DESIGN
11-17-17
DATE

028

COUNTY OF	ITEM NO.	SHEET NO.
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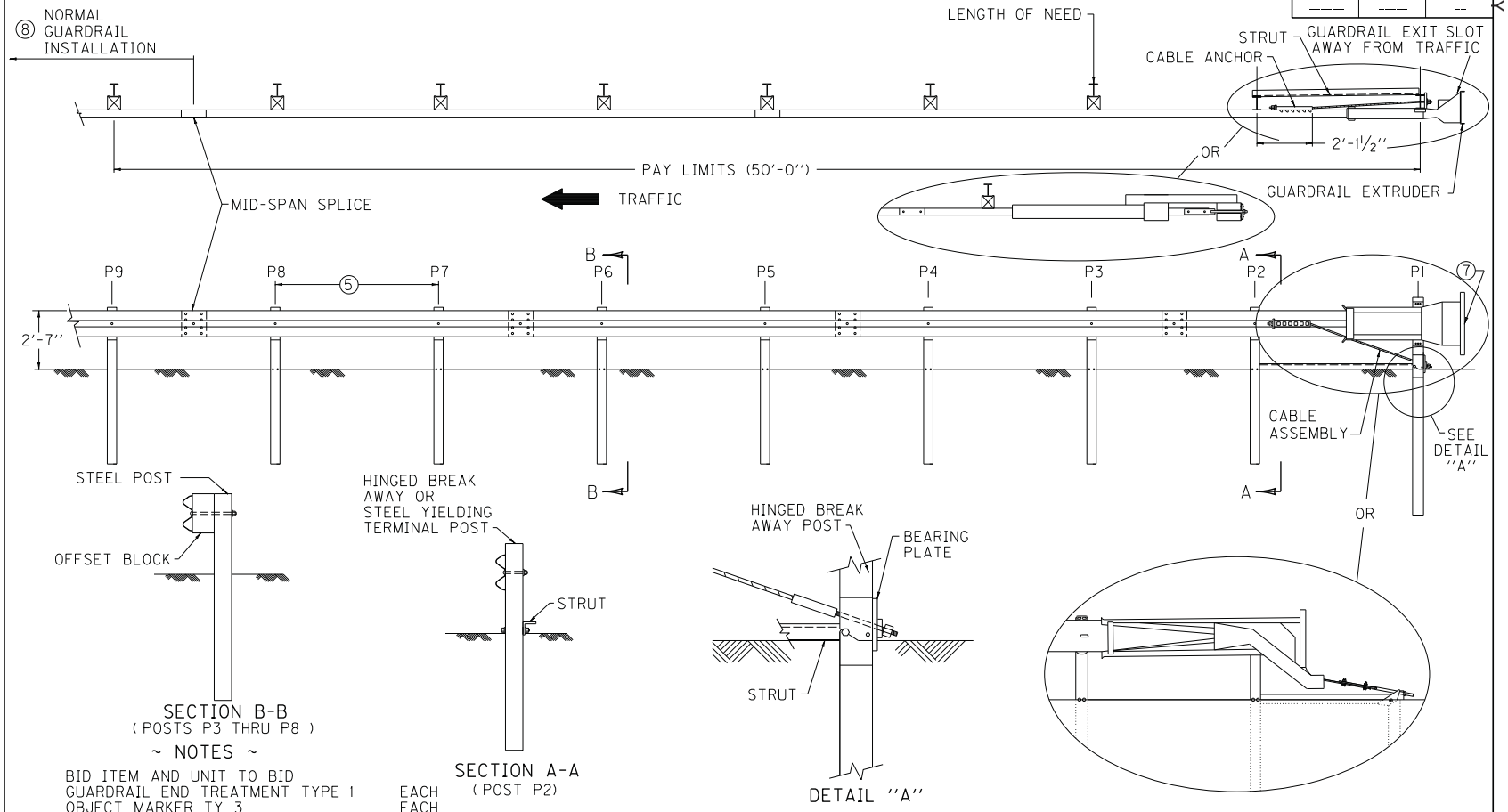

~ NOTES ~

BID ITEM AND UNIT TO BID	
GUARDRAIL END TREATMENT TYPE 1	EACH
OBJECT MARKER TY 3	EACH

1. GUARDRAIL END TREATMENT TYPE 1 SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, AND INCLUDES POSTS, RAIL ELEMENTS, GUARDRAIL EXTRUDER AND ALL OTHER INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION AS DETAILED.
2. PERMISSIBLE ALTERNATES FOR GUARDRAIL END TREATMENT TYPE 1 ARE PATENTED ITEMS: SOFT-STOP MANUACTURED BY TRINITY INDUSTRIES OF DALLAS, TEXAS OR MSKT MANUFACTURED BY ROAD SYSTEMS INC. OF BIG SPRINGS, TEXAS.
3. THE MANUFACTURER SHALL FURNISH TWO (2) SETS OF SHOP PLANS TO THE CONTRACTOR WITH EACH INSTALLATION.
4. THE COMPLETED INSTALLATION SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE MANUFACTURER (SEE SHOP DRAWINGS).

⑤ POSTS P1 THROUGH P9 ARE SPACED 6'-3" ON CENTER.

6. INTENDED USE: AREAS WITH ADEQUATE VEHICLE RECOVERY ZONE BEHIND END TREATMENT.

⑦ OBJECT MARKER TYPE 3 (SEE CURRENT MUTCD MANUAL FOR DETAILS)

⑧ FOR MAINTENANCE AND REPAIR PROJECTS, USE "GUARDRAIL SYSTEM TRANSITION "SEPIA 33", TO TRANSITION BACK TO 27" OR 29" GUARDRAIL HEIGHT, IF ONLY THE TERMINAL IS PROPOSED TO BE REPLACED.

USE WITH CUR. STD. DWG. RBI-004

KENTUCKY DEPARTMENT OF HIGHWAYS

GUARDRAIL END TREATMENT TYPE 1

SUBMITTED William S. Haskins 11-17-17
DIRECTOR DIVISION OF DESIGN DATE

029

COUNTY OF	ITEM NO.	SHEET NO.
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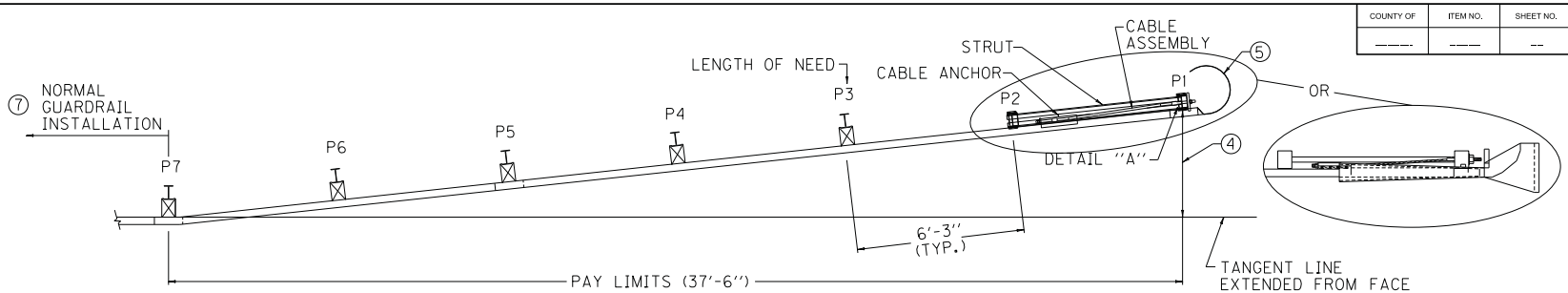
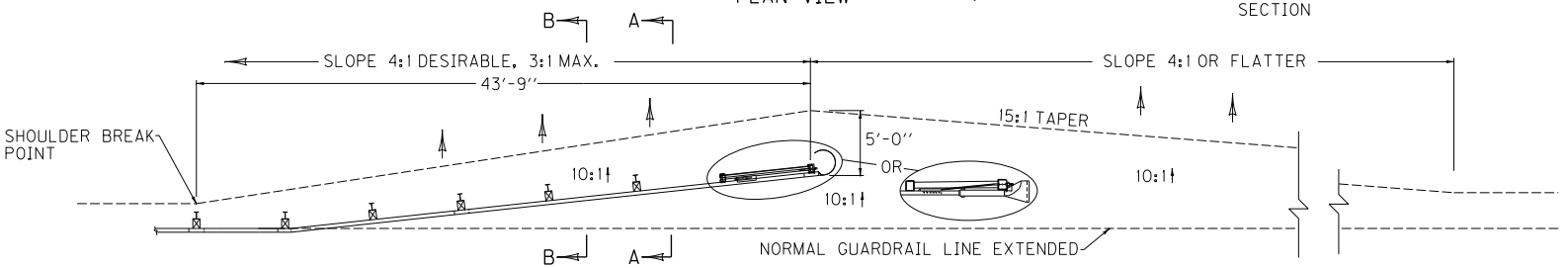
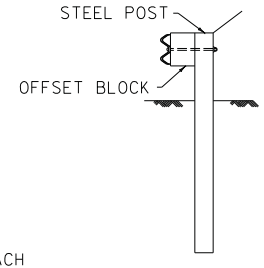
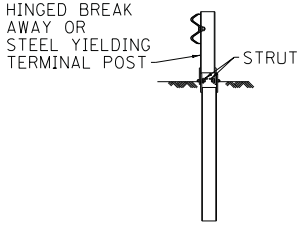




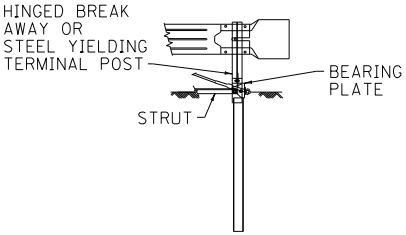
SLOPE LAYOUT AND GRADING DETAIL



SECTION B-B
(POSTS P3 THRU P7)



SECTION A-A
(POST P2)



DETAIL "A"
(ENLARGED VIEW P1)

~ NOTES ~

BID ITEMS AND UNIT TO BID:	
GUARDRAIL END TREATMENT TYPE 4A	EACH
ROADWAY OR BORROW EXCAVATION OR EMBANKMENT-IN-PLACE	CUYD
OBJECT MARKER TY 3	EACH

1. INTENDED USE: AREAS WITH ADEQUATE VEHICLE RECOVERY ZONE BEHIND GUARDRAIL.
2. PERMISSIBLE ALTERNATES FOR GUARDRAIL END TREATMENT TYPE 4A ARE PATENTED ITEMS: SRTMIØ MANUFACTURED BY TRINITY INDUSTRIES OF DALLAS, TEXAS OR MFLEAT MANUFACTURED BY ROAD SYSTEMS INC. OF BIG SPRINGS, TEXAS.
3. THE MANUFACTURER SHALL FURNISH TWO (2) SETS OF SHOP PLANS TO THE CONTRACTOR WITH EACH INSTALLATION.

④ SYSTEM OFFSET OF 4'-0" SHALL BE MEASURED FROM FACE OF OFFSET BLOCK AT NORMAL GUARDRAIL SECTION TO FACE OF POST AT P1.

⑤ OBJECT MARKER TYPE 3 (SEE CURRENT MUTCD MANUAL FOR DETAILS).

6. THE COMPLETED INSTALLATION SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE MANUFACTURER. (SEE SHOP DRAWINGS)

⑦ FOR MAINTENANCE AND REPAIR PROJECTS, USE "GUARDRAIL SYSTEM TRANSITION "SEPIA 33", TO TRANSITION BACK TO 27" OR 29" GUARDRAIL HEIGHT, IF ONLY THE TERMINAL IS PROPOSED TO BE REPLACED.

KENTUCKY DEPARTMENT OF HIGHWAYS

GUARDRAIL END TREATMENT TYPE 4A

SUBMITTED William S. Stalker DIRECTOR DIVISION OF DESIGN 11-17-17 DATE

030

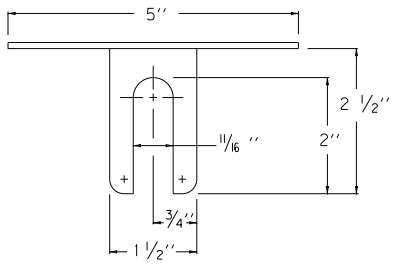
COUNTY OF	ITEM NO.	SHEET NO.

~ NOTES ~

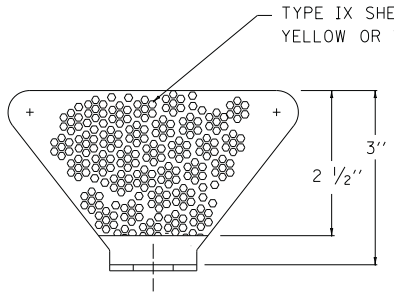
BID ITEMS AND UNIT TO BID

DELINEATOR FOR GUARDRAIL B/W	EACH
DELINEATOR FOR GUARDRAIL M/W	EACH
DELINEATOR FOR GUARDRAIL M/Y	EACH

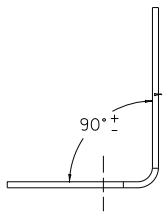
1. DELINEATORS SHALL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE EACH AND SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR ONE COMPLETE INSTALLATION.
2. DELINEATOR SHAPE AND DIMENSIONS ARE SHOWN FOR ILLUSTRATION PURPOSES ONLY. TYPES OF DELINEATORS PERMITTED SHALL BE FROM THE LIST OF APPROVED MATERIALS.
3. GUARDRAIL DELINEATORS SHALL BE REQUIRED ON ALL GUARDRAIL.
4. DELINEATORS SHALL NOT BE INSTALLED WITHIN THE PAY LIMITS OF THE END TREATMENT.
5. DELINEATORS SHALL BE MANUFACTURED FROM 12 GA. GALVANIZED STEEL.
6. DIMENSIONS SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MANUFACTURER'S TOLERANCES.
7. WHEN CONCRETE BARRIERS EXTEND ACROSS BRIDGE STRUCTURES IN LIEU OF STEEL BEAM GUARDRAIL, DELINEATORS SHALL BE INSTALLED AT SAME VERTICAL ALIGNMENT AS ON THE GUARDRAIL, AND DELINEATORS SHALL COMPLY WITH CURRENT STANDARD DRAWING RBM-020.
8. DELINEATORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



PLAN VIEW

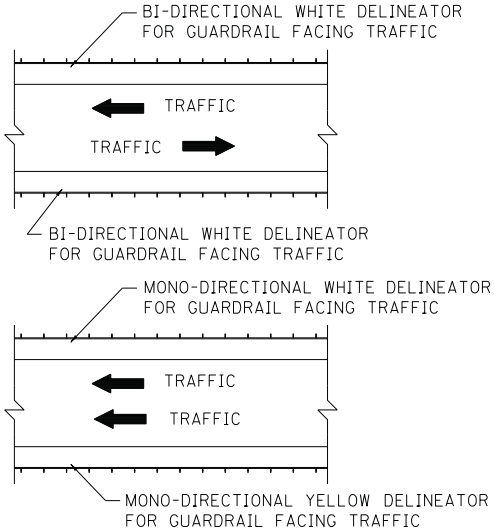


FRONT VIEW

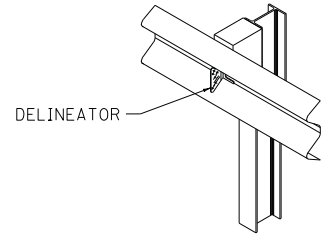


SIDE VIEW

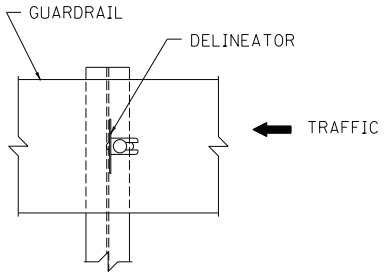
DIMENSIONS SHOWN ARE FOR ONE VERSION OF A WEB-MOUNTED GUARDRAIL DELINEATOR. DELINEATORS WITH ALTERNATE DIMENSIONS MAY BE CONSIDERED FOR INCLUSION ON THE APPROVED PRODUCTS LIST.



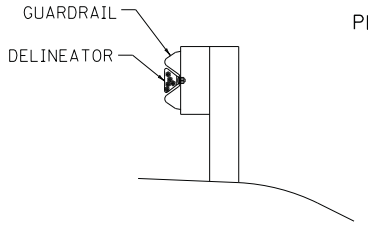
PLACEMENT OF DELINEATORS FOR GUARDRAIL



ISOMETRIC VIEW



FRONT VIEW



SIDE VIEW

APPROXIMATE DELINEATOR SPACING	
TANGENT	100'
CURVE	50'

SPACING SHOULD BE ADJUSTED IN CURVES SO THAT SEVERAL DELINEATORS ARE ALWAYS SIMULTANEOUSLY VISIBLE TO THE ROAD USER.

USE WITH CUR. STD. DWGS. RBM-020, RBR-060

KENTUCKY DEPARTMENT OF HIGHWAYS

DELINEATORS FOR GUARDRAIL

SUBMITTED William S. Stalker DIRECTOR DIVISION OF DESIGN 11-17-17 DATE

032

COUNTY OF	ITEM NO.	SHEET NO.
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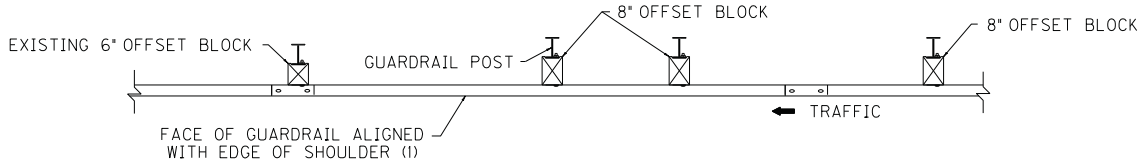
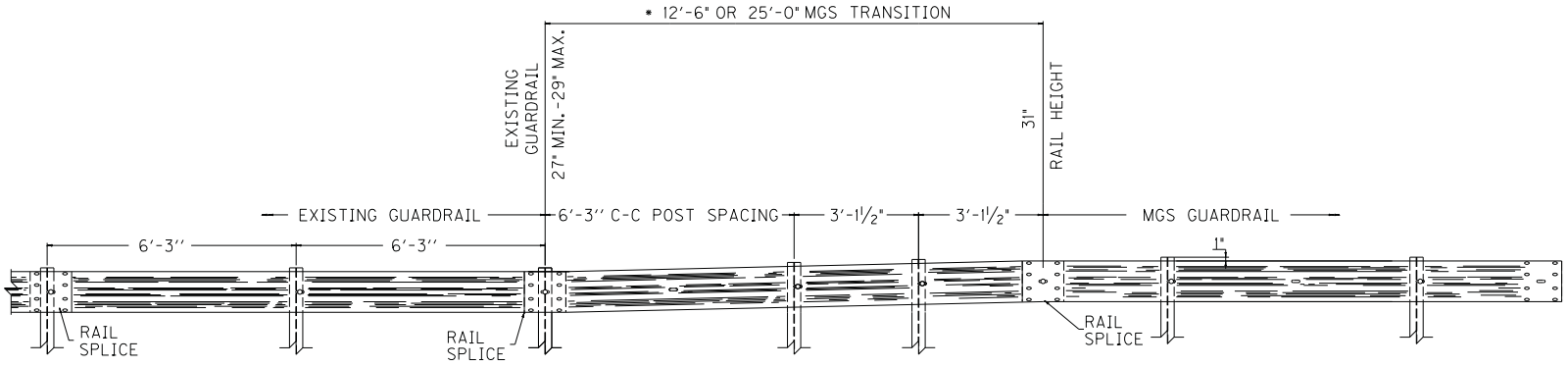


PLAN VIEW

* 12'-6' TRANSITION FROM 29" TO 31" SHOWN,
25'-0" REQUIRED FOR 27" TO 31" TRANSITION.



ELEVATION VIEW

~ NOTES ~

1) WHERE POST OFFSET IS CONSTRAINED, AND WHEN THE EXISTING SHOULDER IS WIDER THAN 4 FEET, THE EXISTING SHOULDER MAY BE REDUCED UP TO 2 INCHES TO ACCOMMODATE THE 8 INCH BLOCKS OF THE MGS GUARDRAIL. WHERE SITE CONSTRAINTS PROHIBIT THE POST FROM BEING PLACED AT LEAST TWO FEET IN FRONT OF THE SLOPE BREAK POINT. USE 7 FOOT POSTS.

2) MGS TRANSITION FROM EXISTING GUARDRAIL SHALL BE COMPLETED OUTSIDE THE 50 FEET MGS END TERMINAL LIMITS.

KENTUCKY DEPARTMENT OF HIGHWAYS

GUARDRAIL SYSTEM TRANSITION

SUBMITTED William S. Ballard 11-17-17
DIRECTOR DIVISION OF DESIGN — DATE

033

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

FHWA-1273 -- Revised May 1, 2012

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (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).

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.

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). 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 bid proposal or request for proposal 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).

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.

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. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 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 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, 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 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, 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 230, 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 (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 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 35 and 29 CFR 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.

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, 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 who 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.

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, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure 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. 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, 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, 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 there under. 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, 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 and 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. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor 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 contracting agency deems appropriate.

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 $10,000 or more.

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, 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). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

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

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore 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 utilized 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) 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 shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. 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.

(3) 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 shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour 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.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, 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.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(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 of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. 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. 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 journeymen 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.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and 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 he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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 watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

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” 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:

(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.

2. 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. 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.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

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 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.

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 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).

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 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 1, 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

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

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.

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.

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.

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.

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 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee 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 grantee or subgrantee 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.

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.

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. 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 Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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. 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) 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;

(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; 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.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **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)

a. By signing and submitting this proposal, the prospective lower tier 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.

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 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 grantee or subgrantee 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 grantee or subgrantee 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.

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.

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 Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall 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 20).

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.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

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 administrating 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, 3 Fountain Place, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: January 27, 2017

General Decision Number: KY180102 01/05/2018 KY102

Superseded General Decision Number: KY20170102

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: Under Executive Order (EO) 13658, an hourly minimum wage of $10.35 for calendar year 2018 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, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.35 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 calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2018

BRIN0004-002 06/01/2017

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.....$ 30.50 15.16
Butler, Edmonson, Hopkins,
Muhlenberg, and Ohio
Counties.....$ 26.80 12.38
Daviess, Hancock,
Henderson, McLean, Union,
and Webster Counties.....$ 30.00 15.16

BRTN0004-005 06/01/2017

ALLEN, CALLOWAY, CHRISTIAN, LOGAN, SIMPSON, TODD, TRIGG, and WARREN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 26.80	12.38

CARP0357-002 04/01/2016

	Rates	Fringes
CARPENTER	$ 27.70	17.03
Diver	$ 41.93	17.03
PILEDRIVERMAN	$ 27.95	17.03

ELEC0369-006 05/31/2017

BUTLER, EDMONSON, LOGAN, TODD & WARREN COUNTIES:

	Rates	Fringes
ELECTRICIAN	$ 31.07	16.60

ELEC0429-001 06/01/2015

ALLEN & SIMPSON COUNTIES:

	Rates	Fringes
ELECTRICIAN	$ 24.84	11.90

ELEC0816-002 06/01/2017

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	$ 32.11	25.5%+6.95

Cable spicers receive $.25 per hour additional.

ELEC1701-003 06/01/2017

DAVIESS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, MUHLENBERG, OHIO,

UNION & WEBSTER COUNTIES:

	Rates	Fringes
ELECTRICIAN	$ 30.55	15.49

Cable spicers receive $.25 per hour additional.

ELEC1925-002 06/01/2017

FULTON COUNTY (Up to a 5 mile radius of City Hall in Fulton):

	Rates	Fringes
CABLE SPLICER	$ 25.80	12.16
ELECTRICIAN	$ 25.30	12.14

ENGI0181-017 07/01/2017

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 31.95	15.15
GROUP 2	$ 29.09	15.15
GROUP 3	$ 29.54	15.15
GROUP 4	$ 28.77	15.15

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 Conrete 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.

IRON0070-005 06/01/2017

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	$ 28.30	21.85

IRON0103-004 08/01/2017

DAVIESS, 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:	$ 28.64	21.385

IRON0492-003 05/01/2017

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:	$ 25.31	13.82

IRON0782-006 08/01/2017

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	$ 28.32	23.00
All Other Work	$ 26.73	23.00

LABO0189-005 07/01/2017

BALLARD, CALLOWAY, CARLISLE, FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL & MCCRACKEN COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1	$ 23.14	13.29
GROUP 2	$ 23.39	13.29
GROUP 3	$ 23.44	13.29
GROUP 4	$ 24.04	13.29

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; Bushammer; 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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LABO0189-006 07/01/2017

ALLEN, BUTLER, CALDWELL, CHRISTIAN, DAVIESS, EDMONSON, HANCOCK, HOPKINS, LOGAN, MCLEAN, MUHLENBERG, OHIO, SIMPSON, TODD, TRIGG & WARREN COUNTIES

	Rates	Fringes

Laborers:

GROUP 1	$ 23.14	13.29
GROUP 2	$ 23.39	13.29
GROUP 3	$ 23.44	13.29
GROUP 4	$ 24.04	13.29

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; Bushammer; 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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LABO0561-001 07/01/2017

CRITTENDEN, HENDERSON, UNION & WEBSTER COUNTIES

Laborers:

	Rates	Fringes
GROUP 1	$ 22.36	14.50
GROUP 2	$ 22.61	14.50
GROUP 3	$ 22.66	14.50
GROUP 4	$ 23.26	14.5

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; Bushammer; 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 05/01/2017

BALLARD COUNTY

	Rates	Fringes
Painters:		
Bridges	$ 33.56	16.23
All Other Work	$ 31.26	16.23

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

PAIN0156-006 04/01/2015

DAVIESS, HANCOCK, HENDERSON, MCLEAN, OHIO, UNION & WEBSTER COUNTIES

	Rates	Fringes
Painters:		
BRIDGES		
GROUP 1	$ 27.60	12.85
GROUP 2	$ 27.85	12.85
GROUP 3	$ 28.60	12.85
GROUP 4	$ 29.60	12.85
ALL OTHER WORK:		
GROUP 1	$ 26.45	12.85
GROUP 2	$ 26.70	12.85
GROUP 3	$ 27.45	12.85
GROUP 4	$ 28.45	12.85

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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PAIN0456-003 01/01/2015

ALLEN, BUTLER, LOGAN, MUHLENBERG, SIMPSON, TODD & WARREN COUNTIES:

	Rates	Fringes
Painters:		
BRIDGES		
Brush & Roller	$ 23.25	9.95
Spray; Sandblast; Power Tools; Waterblast & Steam Cleaning	$ 24.25	9.95
ALL OTHER WORK		
Brush & Roller	$ 19.25	9.95
Spray; Sandblast; Power Tools; Waterblast & Steam Cleaning	$ 20.25	9.95

ALL OTHER WORK - HIGH TIME PAY
Over 35 feet (up to 100 feet) - $1.00 above base wage
100 feet and over - $2.00 above base wage

DURING SPRAY PAINTING AND SANDBLASTING OPERATIONS, POT TENDERS SHALL RECEIVE THE SAME WAGE RATES AS THE SPRAY PAINTER OR NOZZLE OPERATOR

PAIN0500-002 06/01/2017

CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN, FULTON, GRAVES, HICKMAN, HOPKINS, LIVINGSTON, LYON, MARSHALL, MCCRACKEN & TRIGG COUNTIES:

	Rates	Fringes
Painters:		
Bridges	$ 27.75	12.85
All Other Work	$ 21.50	12.85

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

PLUM0184-002 07/01/2016

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN, FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN and TRIGG COUNTIES

	Rates	Fringes
Plumber; Steamfitter	$ 34.36	16.78

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* PLUM0502-004 08/01/2017

ALLEN, BUTLER, EDMONSON, SIMPSON & WARREN

	Rates	Fringes
Plumber; Steamfitter	$ 33.12	20.78

PLUM0633-002 07/01/2017

DAVIESS, HANCOCK, HENDERSON, HOPKINS, LOGAN, MCLEAN, MUHLENBERG, OHIO, TODD, UNION & WEBSTER COUNTIES:

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 31.47	16.80

TEAM0089-003 03/26/2017

ALLEN, BUTLER, EDMONSON, LOGAN, SIMPSON & WARREN COUNTIES

	Rates	Fringes
Truck drivers:		
Zone 1:		
Group 1	$ 19.88	21.04
Group 2	$ 20.06	21.04
Group 3	$ 20.14	21.04
Group 4	$ 20.16	21.04

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 03/26/2017

DAVIESS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, MUHLENBERG, OHIO & WEBSTER COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1	$ 21.43	21.04
Group 2	$ 21.66	21.04
Group 3	$ 21.73	21.04
Group 4	$ 21.74	21.04

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 03/26/2017

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN, FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN,TODD & TRIGG COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1	$ 19.88	21.04
Group 2	$ 20.06	21.04
Group 3	$ 20.06	21.04
Group 4	$ 20.16	21.04
Group 5	$ 20.14	21.04

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

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 www.dol.gov/whd/govcontracts.

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) (ii)).

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.

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 Regional Office for the area in which the survey was conducted because those Regional Offices have 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 after an employee works eight (8) hours a day or forty (40) hours a week, whichever gives the employee the greater wages. At least time and one-half the base rate is required for all overtime. A laborer, workman or mechanic and an employer may enter into a written agreement or a collective bargaining agreement to work more than eight (8) hours a calendar day but not more than ten (10) hours a calendar day for the straight time hourly rate. 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:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
5.2%	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 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 shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed. The notification shall be mailed to:

Evelyn Teague, Regional Director
Office of Federal Contract Compliance Programs
61 Forsyth Street, SW, Suite 7B75
Atlanta, Georgia 30303-8609

4. As used in this Notice, and in the contract resulting from this solicitation, the **"covered area"** is McCracken County.

PART IV

INSURANCE

INSURANCE

The Contractor shall procure and maintain the following insurance in addition to the insurance required by law:

1) Commercial General Liability-Occurrence form – not less than $2,000,000 General aggregate, $2,000,000 Products & Completed Aggregate, $1,000,000 Personal & Advertising, $1,000,000 each occurrence.

2) Automobile Liability- $1,000,000 per accident

3) Employers Liability:

   a) $100,000 Each Accident Bodily Injury
   b) $500,000 Policy limit Bodily Injury by Disease
   c) $100,000 Each Employee Bodily Injury by Disease

4) The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
   a) "policy contains no deductible clauses."
   b) "policy contains _____ (amount) deductible property damage clause but company will pay claim and collect the deductible from the insured."

5) KENTUCKY WORKMEN'S COMPENSATION INSURANCE. The contractor shall furnish evidence of coverage of all his employees or give evidence of self-insurance by submitting a copy of a certificate issued by the Workmen's Compensation Board.

The cost of insurance is incidental to all contract items. All subcontractors must meet the same minimum insurance requirements.

PART V

BID ITEMS

PROPOSAL BID ITEMS

184001

Report Date 1/3/18

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	1,490.00	TON		$	
0020	00003		CRUSHED STONE BASE	1,103.00	TON		$	
0030	00020		TRAFFIC BOUND BASE	13.00	TON		$	
0040	00100		ASPHALT SEAL AGGREGATE	340.00	TON		$	
0050	00103		ASPHALT SEAL COAT	45.80	TON		$	
0060	00212		CL2 ASPH BASE 1.00D PG64-22	2,004.00	TON		$	
0070	00301		CL2 ASPH SURF 0.38D PG64-22	583.00	TON		$	
0080	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		$	
0090	02677		ASPHALT PAVE MILLING & TEXTURING	207.00	TON		$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0100	01987		DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	42.00	EACH		$	
0110	02230		EMBANKMENT IN PLACE	12,251.00	CUYD		$	
0120	02233		SPECIAL EMBANKMENT (LEVEE)	20,373.00	CUYD		$	
0130	02242		WATER	600.00	MGAL		$	
0140	02351		GUARDRAIL-STEEL W BEAM-S FACE	1,712.50	LF		$	
0150	02355		GUARDRAIL-STEEL W BEAM-S FACE A	250.00	LF		$	
0160	02360		GUARDRAIL TERMINAL SECTION NO 1	4.00	EACH		$	
0170	02367		GUARDRAIL END TREATMENT TYPE 1	2.00	EACH		$	
0180	02373		GUARDRAIL END TREATMENT TYPE 3	1.00	EACH		$	
0190	02381		REMOVE GUARDRAIL	3,125.00	LF		$	
0200	02391		GUARDRAIL END TREATMENT TYPE 4A	9.00	EACH		$	
0210	02429		RIGHT-OF-WAY MONUMENT TYPE 1	6.00	EACH		$	
0220	02460		REMOVE TREES OR STUMPS	16.00	EACH		$	
0230	02562		TEMPORARY SIGNS	350.20	SQFT		$	
0240	02575		DITCHING AND SHOULDERING	7,725.00	LF		$	
0250	02599		FABRIC-GEOTEXTILE TYPE IV	3,196.00	SQYD		$	
0260	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		$	
0270	02726		STAKING	1.00	LS		$	
0280	05950		EROSION CONTROL BLANKET	7,500.00	SQYD		$	
0290	05963		INITIAL FERTILIZER	2.00	TON		$	
0300	05964		20-10-10 FERTILIZER	1.00	TON		$	
0310	05985		SEEDING AND PROTECTION	22,000.00	SQYD		$	
0320	05992		AGRICULTURAL LIMESTONE	66.00	TON		$	
0330	06406		SBM ALUM SHEET SIGNS .080 IN	166.00	SQFT		$	
0340	06407		SBM ALUM SHEET SIGNS .125 IN	44.00	SQFT		$	
0350	06410		STEEL POST TYPE 1	429.00	LF		$	
0360	06510		PAVE STRIPING-TEMP PAINT-4 IN	4,980.00	LF		$	
0370	06514		PAVE STRIPING-PERM PAINT-4 IN	36,710.00	LF		$	
0380	08806		GUARDRAIL-BRIDGE CASE I-A	125.00	LF		$	
0390	08810		PRECAST CONC BRIDGE RAIL BLOCK	10.00	EACH		$	
0400	10020NS		FUEL ADJUSTMENT	5,347.00	DOLL		$	

PROPOSAL BID ITEMS

184001

Report Date 1/3/18

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0410	20458ES403		CENTERLINE RUMBLE STRIPS	16,065.00	LF		$	
0420	21373ND		REMOVE SIGN	29.00	EACH		$	
0430	22400NN		REMOVE AND RELOCATE SIGN ASSEMBLY	7.00	EACH		$	
0440	22861EN		HIGH STRENGTH GEOTEXTILE FABRIC TY V	3,430.00	SQYD		$	
0450	24631EC		BARCODE SIGN INVENTORY	48.00	EACH		$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0460	00440		ENTRANCE PIPE-15 IN	24.00	LF		$	
0470	00441		ENTRANCE PIPE-18 IN	49.00	LF		$	
0480	00462		CULVERT PIPE-18 IN	217.00	LF		$	
0490	00464		CULVERT PIPE-24 IN	229.00	LF		$	
0500	00466		CULVERT PIPE-30 IN	71.00	LF		$	
0510	00468		CULVERT PIPE-36 IN	23.00	LF		$	
0520	00472		CULVERT PIPE-60 IN	126.00	LF		$	
0530	01310		REMOVE PIPE	248.00	LF		$	
0540	01393		METAL END SECTION TY 3-24 IN	2.00	EACH		$	
0550	01729		SAFETY BOX INLET-24 IN DBL SDB-5	1.00	EACH		$	
0560	02159		TEMP DITCH	8,150.00	LF		$	
0570	02160		CLEAN TEMP DITCH	4,075.00	LF		$	
0580	02483		CHANNEL LINING CLASS II	200.00	TON		$	
0590	02701		TEMP SILT FENCE	8,150.00	LF		$	
0600	02703		SILT TRAP TYPE A	210.00	EACH		$	
0610	02706		CLEAN SILT TRAP TYPE A	210.00	EACH		$	
0620	05952		TEMP MULCH	16,200.00	SQYD		$	
0630	05953		TEMP SEEDING AND PROTECTION	12,100.00	SQYD		$	
0640	08100		CONCRETE-CLASS A	42.20	CUYD		$	
0650	21679EN		FIBERGLASS DRAIN PIPE 41" HOBAS PIPE (LEVEE)	250.00	LF		$	
0660	21679EN		FIBERGLASS DRAIN PIPE 48" HOBAS PIPE (LEVEE)	250.00	LF		$	
0670	21679EN		FIBERGLASS DRAIN PIPE 51" HOBAS PIPE (LEVEE)	125.00	LF		$	
0680	24575ES610		HEADWALL 5-HOBAS PIPE (LEVEE)	1.00	EACH		$	
0690	24575ES610		HEADWALL Sloped & Mitered Concrete for 18 Inch Pipe	4.00	EACH		$	
0700	24575ES610		HEADWALL Sloped & Mitered Concrete for 24 Inch Pipe	8.00	EACH		$	
0710	24575ES610		HEADWALL Sloped & Mitered Concrete for 30 Inch Pipe	4.00	EACH		$	
0720	24575ES610		HEADWALL Sloped & Mitered Concrete for 36 Inch Pipe	2.00	EACH		$	

Section: 0004 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0730	02569		DEMOBILIZATION	1.00	LS		$	

PROPOSAL BID ITEMS

184001

Report Date 1/3/18