



CALL NO. 107

CONTRACT ID. 224401

JESSAMINE COUNTY

FED/STATE PROJECT NUMBER HSIP 2681(034)

DESCRIPTION HARRODSBURG ROAD (US 68)

WORK TYPE ASPHALT PAVEMENT & ROADWAY REHAB

PRIMARY COMPLETION DATE 7/31/2023

LETTING DATE: May 26,2022

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME May 26,2022. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

DBE CERTIFICATION REQUIRED - 12%

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

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PART I
SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 07

CONTRACT ID - 224401

HSIP 2681(034)

COUNTY - JESSAMINE

PCN - 0705700682201

HSIP 2681(034)

HARRODSBURG ROAD (US 68) (MP 0.000) FROM THE KENTUCKY RIVER IN JESSAMINE COUNTY EXTENDING NORTHEAST 4.807 MILES TO THE KY 29 INTERSECTION. (MP 4.807), A DISTANCE OF 04.81 MILES.ASPHALT PAVEMENT & ROADWAY REHAB SYP NO. 07-09009.

GEOGRAPHIC COORDINATES LATITUDE 37:52:31.80 LONGITUDE 84:40:29.20

ADT 3,177

COMPLETION DATE(S):

COMPLETED BY 07/31/2023

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

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

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

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

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

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

Questions about projects during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by 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.

April 30, 2018

FEDERAL CONTRACT NOTES

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

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

CIVIL RIGHTS ACT OF 1964

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

NOTICE TO ALL BIDDERS

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

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

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

SECOND TIER SUBCONTRACTS

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

DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

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

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

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

DBE GOAL

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

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

OBLIGATION OF CONTRACTORS

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

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

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

CERTIFICATION OF CONTRACT GOAL

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

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

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

DBE PARTICIPATION PLAN

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

The DBE Participation Plan shall include the following:

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

- b) The dollar value of services provided by DBEs such as quality control testing, equipment repair and maintenance, engineering, staking, etc.;
- c) The dollar value of joint ventures. DBE credit for joint ventures will be limited to the dollar amount of the work actually performed by the DBE in the joint venture;
4. Written and signed documentation of the bidder's commitment to use a DBE contractor whose participation is being utilized to meet the DBE goal; and
5. Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment.

UPON AWARD AND BEFORE A WORK ORDER WILL BE ISSUED

Contractors must submit the signed subcontract between the contractor and the DBE contractor, along with the DBE's certificate of insurance. If the DBE is a supplier of materials for the project, a signed purchase order 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 (hard copy along with an electronic copy) of this information must be received in the Division of Contract Procurement no later than 12:00 noon of the tenth calendar day after receipt of notification that they are the apparent low bidder.

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

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

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

FAILURE TO MEET GOOD FAITH REQUIREMENT

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

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

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

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

SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT

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

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

PROMPT PAYMENT

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

CONTRACTOR REPORTING

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

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

***** IMPORTANT *****

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

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

The prime contractor should notify the KYTC Office for Civil Rights and Small Business Development seven (7) days prior to DBE contractors commencing work on the project. The contact in this office is Mr. Melvin Byne. Mr. Byne's current contact information is email address – melvin.bynes2@ky.gov and the telephone number is (502) 564-3601.

DEFAULT OR DECERTIFICATION OF THE DBE

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

PROHIBITION ON TELECOMMUNICATIONS EQUIPMENT OR SERVICES

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

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

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

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

SECTION 7 is expanded by the following new Article:

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

Pursuant to Title 46CFR Part 381, the Contractor agrees

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

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.

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

STATIONING

The contractor is advised that the planned locations of work were established from a beginning station number, which is STA 0+00.00 at the US 68 Kentucky River bridge, and corresponds to Milepoint 0.00 along US 68. **NOTE:** The existing mile marker signs may not correspond to the proposed work locations.

LIDAR

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

ON-SITE INSPECTION

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

RIGHT OF WAY LIMITS

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

CONTROL

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

General Notes & Description of Work

Page 2 of 6

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 multiple curves 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 Superelevation Improvements are set up and quantified for the Contractor to utilize Leveling & Wedging in order to achieve the desired superelevation improvements at the identified location(s). The Superelevation Improvement Summary lists the estimated quantities of Leveling & Wedging for each curve; however, the Engineer will make the final determination as to which Leveling & Wedging mix design 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 the superelevation improvements have been constructed, the full width of the identified curves will be overlaid with a surface course. As a result of the superelevation improvements and surfacing operations, the roadside shoulders, fill slopes, and/or ditches will have to be modified to match the final pavement elevations and tie in with the existing ground lines. A quantity of Ditching and Shouldering has been estimated for regrading the roadside within the identified curves. A representative cross section is given for each curve showing the proposed superelevation improvements and the resulting roadside grading.

NOTE: Some field adjustments of the proposed shoulder width, fill slope, ditch, and/or superelevation improvement may be required. The proposed shoulder and roadside grading is intended to occur within existing Right-of-Way and NOT disturb any sensitive obstructions (i.e. fences, buildings, utility poles, etc.). Superelevation improvements with sensitive obstructions along the roadside shall still require regrading the roadside, but the slopes may have to be constructed steeper than shown on the representative cross section. The desire of the Department is to construct the new fill slopes at 3:1 or flatter. When a fill slope needs to be constructed steeper than 3:1 to remain within existing Right-of-Way or not impact a sensitive obstruction, and the existing fill slope is steeper than 3:1, then the new fill slope can be constructed steeper than 3:1, but the new fill slope shall not be constructed steeper than the existing fill slope. If a desired superelevation improvement will result in the new fill slope having to be graded steeper than the existing fill slope in order to remain within existing Right-of-Way or 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 new fill slope that will not be steeper than the existing fill slope. Prior to making modifications to the proposed superelevation rate, shoulder width, and/or fill slope, coordinate with and obtain approval from the Engineer.

Ditching and Shouldering. Several areas throughout the project are set up for Ditching & Shouldering. Perform Ditching & Shouldering at the locations identified on the Ditching & Shouldering Summary, or the locations as directed by the Engineer. The proposed shoulder, ditch, and/or roadside dimensions are detailed on the Typical Sections. Perform Ditching & Shouldering according to the Special Note for Ditching & Shouldering. For details of the conditions and situations commonly encountered when performing Ditching & Shouldering, refer to the detail sheets titled: DITCHING & SHOULDERING AND EMBANKMENT BENCHING DETAILS.

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Shoulder and Pavement Edge Repair. There are locations throughout the project where the pavement edge and/or shoulder are being repaired. See their respective detail sheets and summary sheets for more information on locations and pavement designs.

DGA Wedge & Chip Seal. Some sections of "Ditching & Shouldering" are set up to receive a DGA Wedge & Chip Seal after the ditching and shouldering operations are complete. Other areas of "Ditching & Shouldering" are NOT to receive the DGA Wedge & Chip Seal. Construct the DGA Wedge & Chip Seal at the locations identified on the Ditching & Shouldering Summary, or the locations as directed by the Engineer. The proposed DGA Wedge dimensions are detailed on the Typical Sections. Refer to the Special Note for Ditching & Shouldering and the Special Note for Double Asphalt Seal Coat for more information on the DGA Wedge & Chip Seal.

Entrance Pipe Replacement & Driveway Surfacing. Due to areas of existing ditch line being re-shaped and relocated further from the edge of pavement, there are areas throughout the project where the existing entrance pipe will have to be removed and replaced to line up with the new ditch line. Refer to the Entrance Detail within the Typical Sections for details on this work item. See the Entrance Summary for the locations and bid items/quantities associated with the entrance pipe replacements. The existing driveway surface is noted on the summary sheet and is to be replaced with like-kind surfacing. The Engineer will make the final determination as to the locations and quantities required to complete the work based on the existing conditions encountered during construction. Refer to the Special Note for Pipe Replacements / Extensions for more information on this item of work.

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

Sloped & Mitered Concrete Headwalls. Sloped & Mitered Concrete Headwalls shall be constructed as shown on the detail sheets titled: SLOPED & MITERED CONCRETE HEADWALL DETAILS. This headwall is intended to combine the benefits of a pipe headwall with the advantages of safety and adaptability by allowing the headwall to be custom fit to the surrounding embankment. The Culvert Pipe Replacement & Extension Summary identifies which pipe ends are to receive the Sloped & Mitered Concrete Headwalls. The identified pipe ends shall have the headwall installed and the pipe mitered at a slope that matches the final embankment slopes at each location. If the pipe is on a skew, install the headwall and miter the pipe so that the concrete slope paving of the new headwall is perpendicular to the roadway. In other words the embankment slope should not be warped to fit the skew of the pipe; the headwall should be installed and the pipe should be mitered to match the final embankment slope, so that the roadside fill slope is fairly consistent prior to the pipe, at the pipe, and beyond the pipe, and does not create an excessive bulge in the embankment. When completed the edges of the Sloped & Mitered Concrete Headwall should be flush with the surrounding ground line. Payment at the Contract unit price Each shall be full compensation for furnishing all labor, materials, equipment, and incidentals necessary to install the headwall and miter the pipe.

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

Channel Lining. A quantity of 1,967 Tons of Channel Lining Class II has been included in the Ditching & Shouldering Summary and the Superelevation Improvement Summary for use at location indicated in those summaries. An additional 600 Tons of Channel Lining Class II has been included in the Culvert Pipe Summary for potential use around drop box inlets, safety box inlets, inlets and outlets of pipes, along areas of regraded ditch line and/or fill slope, and other areas as directed by the Engineer. The Contractor and Engineer should work together to determine the location and best use of Channel Lining throughout this project. The Engineer will make the final determination as to the needed quantities and placement of Channel Lining.

Erosion Control Blanket. A quantity of 14100 square yards of Erosion Control Blanket has been included in the contract for potential use along areas of regraded shoulders, ditch lines, fills slopes and/or back slopes, inlets and outlets of pipes, and any other areas as directed by the Engineer. The Contractor and Engineer should work together to determine the location and best use of Erosion Control Blanket throughout this project. The Engineer will make the final determination as to the quantities and placement of Erosion Control Blanket.

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

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

Drilled Railroad Rails and Cribbing. There are locations within the project where embankment slide repairs using drilled railroad rails and cribbing is proposed. Locations are noted on the Cribbing Summary. Refer to the Special Note for Embankment Slide Repair and the associated detail sheets for more information.

Guardrail Cribbing. There are locations within the project where guardrail cribbing is proposed. Locations are noted on the Cribbing Summary. Extra Length Guardrail Posts are noted on the Guardrail Summary. Refer to the Guardrail Cribbing detail sheet for more information.

Removal of Existing Signs and Installation of Proposed Signs. A quantity of "Remove Sign" has been included for removal of existing signs along the corridor as identified in on the Signing Plans. An estimated quantity of new signing and sign post is included on the Signing Summary. The Contractor and Engineer will work with the District Traffic Section to determine the final signing layout and sign types prior to installation of the proposed signing. Refer to the Special Note for Signing and the Special Note for Signage for more details concerning the procedures for determining and staking the final layout and installation of the signing.

Removal and Relocation of Existing Sign Assemblies. A total quantity of 30 "Remove and Relocate Sign Assembly" has been included in the contract for any existing sign assemblies that may need to be removed and reinstalled. The need to remove and reinstall an existing sign assembly could occur for multiple reasons.

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One reason is when an existing sign assembly obstructs or interferes with proposed construction activities. Another reason to remove and relocate an existing sign assembly is when the existing sign falls within 200 feet of a proposed sign. An example would be an existing "School Bus Stop Ahead" sign that is within 200 feet of a proposed horizontal alignment sign. Situations such as this should become apparent during Staking operations. Therefore, during Staking operations the Contractor shall work with the Engineer and/or District Traffic Engineer to determine the best location to relocate any existing signs so the final signing meets the 200 foot spacing guideline, or is relocated as directed by the Engineer and/or District Traffic Engineer. (NOTE: chevrons are not included in the 200 foot minimum spacing guideline). Once it is determined that an existing sign is to be removed and reinstalled, the sign should be removed and reinstalled as soon as possible. The intent is for the sign to be "down" the minimum length of time necessary.

NOTE: The Department will consider all signs attached to one or more connected posts as a single sign assembly. The Department will measure and pay for "Remove and Relocate Sign Assembly" as each sign assembly removed and relocated; NOT each individual sign removed and relocated.

Prior to actually removing and relocating a sign, the Contractor should review the sheet sign and sign post for damage. It is the Contractor's responsibility to notify the Engineer of any sheet sign or sign post damage prior to removal and relocation of the sign, so that it can be documented that the existing sheet sign and/or sign post had pre-existing damage. If the Contractor does not make the Department aware of pre-existing damage prior to removing the sign from its existing location, the Department will have to assume the damage was the result of the Contractor's removal and relocation efforts. The Contractor shall replace any components of a sign that are damaged during removal and relocation. Replacement of the damaged components shall be incidental to the bid item "Remove and Relocate Sign Assembly".

If the existing sheet sign is found to have pre-existing damage, the Department will provide the Contractor with a new sheet sign to replace the sheet sign with pre-existing damage. Detaching the damaged sheet sign from the existing post and attaching the new sheet sign to the existing post shall be incidental to the bid item "Remove and Relocate Sign Assembly".

If any of the existing hardware components (bracing, brackets, bolts, rivets, etc.) are found to have pre-existing damage, the Contractor shall provide the necessary replacement hardware for proper re-installation of the sign. These components shall be incidental to the bid item "Remove and Relocate Sign Assembly".

If an existing sign that is being relocated is found to not have an existing soil stabilizer plate, or if the soil stabilizer plate and/or anchor is damaged during removal, then a new soil stabilizer plate and/or anchor shall be provided by the Contractor and shall be incidental to the bid item "Remove & Relocate Sheet Signs".

If an existing sign that is being relocated requires a Type D slip base, providing and installing a new Type D slip base shall be incidental to the bid item "Remove and Relocate Sign Assembly".

If an existing sign that is being relocated is found to have pre-existing damage to the sign post, the Department will NOT utilize the bid item "Remove and Relocate Sign Assembly" for removing and relocating such a sign. Instead, the Department will require the Contractor to install a new sign post(s) at the new location, and pay for the new post(s) under the bid item "Steel Post Type I". Detaching the existing sheet sign from the existing, damaged post and attaching the existing sheet sign to the new post shall be incidental to the bid item "Steel Post Type I". Any hardware that is needed to complete the installation shall also be

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incidental to the bid item "Steel Post Type I". Removal of the existing damaged post(s) and any other sign components not needed will be paid under the bid item "Remove Sign".

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

NOTE: Any trees being removed near existing stone walls shall be cut flush to the ground and treated with the herbicide solution specified in the Special Note for Tree, Stump, and Brush Removal. It may be necessary to cut and remove any such trees in sections, so as not to disturb the existing stone walls. If any damage occurs to any stone walls during construction, the Engineer shall notify HSIP staff and the Division of Environmental Analysis. The existing stone walls are historic, and it may be determined that the damage needs to be repaired. The Contractor and Engineer should work together to determine the best method of tree removal to limit the chances of damage to any existing stone walls.

High Friction Surface Treatment. There are locations within the project where High Friction Surface Treatment is to be installed. Locations are noted on the High Friction Surface Summary. Refer to the Special Note for Polymer Concrete Overlay Systems and the Special Note for Striping on High Friction Surface for more information on this item of work.

Temporary Striping. A quantity of 9,429 linear feet of Pavement Striping – Temp Paint – 4 in has been included in the contract for potential use in the Superelevation Improvement areas, and any other areas as directed by the Engineer. The Contractor and Engineer should work together to determine any locations throughout the project requiring temporary pavement striping. The Engineer will make the final determination as to the quantities and placement of temporary pavement striping.

Gabion Baskets. There are locations within the project where Gabion Baskets are to be replaced due to new guardrail installation. Refer to the Guardrail Summary for more information.

Rock Removal. Rock Removal is to occur at areas indicated on the plan sheets and summary sheets. See the Rock Removal Details for more information. Begin and End limits at each area are to be field verified with approval from the Engineer. Removal is to occur through the means of using a hoe ram with no blasting being anticipated. All work is to be completed from the roadway. Disposal of all excess and unsuitable excavation is to be at approved sites off the right of way obtained by the Contractor at no additional cost to the Department with all cost being incidental to the bid item "Rock Removal". The Department will measure the Rock Removal as "Rock Removal" and will pay the quantity as Cubic Yards.

SPECIAL NOTE FOR DITCHING & SHOULDERING

I. DESCRIPTION

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

- (1) Maintaining and Controlling Traffic; (2) Site Preparation; (3) Ditching; (4) Shouldering;
- (5) Constructing Embankments, Embankment Benching, and/or Excavation; (6) Erosion Control; and (7) Any other work as specified in this Contract.

II. MATERIALS

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

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

III. CONSTRUCTION METHODS

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

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C. Site Preparation. Be responsible for all site preparation including, but not limited to: staking; clearing, grubbing, and removal of all obstructions or any other items; excavation, embankment benching, compacting embankment in place; temporary pollution and erosion control; disposal of excess, waste, and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the Engineer.

D. Staking. See the Special Note for Staking.

E. Ditching & Shouldering. Perform Ditching & Shouldering at the approximate locations listed on the Summary Sheets and/or Plan Sheets, or at locations as directed by the Engineer. All work shall be completed according to Section 209, or as specified in the DITCHING & SHOULDERING AND EMBANKMENT BENCHING DETAILS, the Typical Sections, the Plan Sheets, or as directed by the Engineer. Ditching & Shouldering shall consist of any necessary clearing, grubbing, grading, and/or reshaping of the existing shoulder, ditch, and/or roadside to achieve the proposed shoulder, ditch, and/or roadside dimensions detailed on the Typical Sections. Depending on the existing conditions encountered and to achieve the dimensions as detailed in the Typical Sections, Ditching & Shouldering may also include, but is not limited to: embankment benching, excavating and removing excess material, excavation of rock, providing additional earth material suitable for vegetation growth and grading, shaping, and compacting the earth material.

Provide positive drainage of ditches and slopes at all times during and upon completion of construction. When asphalt surfacing or resurfacing is included in the contract, perform all ditching and as much of the shouldering operations as is practical before beginning final surfacing operations.

F. Embankment Benching. Embankment Benching shall be required when the existing groundline has an incline greater than 15%. Any and all required embankment benching shall be incidental to the bid item DITCHING & SHOULDERING. For more information refer to the DITCHING & SHOULDERING AND EMBANKMENT BENCHING DETAILS.

G. DGA Wedge & Chip Seal. Some, or possibly all, areas of Ditching & Shouldering may be set up to receive a DGA Wedge & Chip Seal after the ditching and shouldering operations are complete. Other areas of Ditching & Shouldering may NOT be set up to receive the DGA Wedge & Chip Seal. See the Summary Sheets and/or Plan Sheets for the approximate locations to receive the DGA Wedge & Chip Seal. The Engineer will determine the exact limits of the DGA Wedge & Chip Seal at the time of construction. Construct and compact the DGA as required by Section 302. Place Chip Seal over the entire width of the DGA Wedge. See the Special Note for Double Asphalt Seal Coat for the Chip Seal requirements.

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- H. Channel Lining.** Install Class II Channel Lining along any sections of ditches, fill slopes, or ditch backslopes identified in the Proposal, or any other locations the Engineer directs for slope protection or erosion control. When Channel Lining is proposed to be installed along a steep fill slope in order to establish a width of shoulder (as shown in Figure 5 of the DITCHING & SHOULDERING AND EMBANKMENT BENCHING DETAILS), the Channel Lining is to be capped with Geotextile Fabric Class 1 and 4” of Crushed Stone Base. In lieu of 4” of Crushed Stone Base, 4” of DGA and a Double Asphalt Seal Coat may be specified in the Proposal. Install whichever aggregate capping material the Proposal specifies, or as directed by the Engineer.
- I. Right-of-Way Limits.** The Department has not established exact limits of the Right-of-Way. Unless a consent and release form is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured by the Contractor at no additional cost to the Department. In the event that private improvements (i.e. fences, buildings, etc.) encroach upon the Right-of-Way, the contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.
- J. Property Damage.** The Contractor shall be responsible for all damage to public and/or private property resulting from the Contractor’s activities. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.
- K. Coordination with Utility Companies.** Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs due to the Contractor’s operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR’S OPERATIONS. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however, no extension will be granted for any delay caused by the Contractor’s failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.

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

M. Control. Perform all work under the absolute control of the Department. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces, and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties.

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

N. Clean Up, Disposal of Waste. Clean up the project area as work progresses. Dispose of all removed excess material, debris, and other waste at approved sites off the Right of Way obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.

O. Final Dressing, Seeding and Protection. Grade all disturbed areas to blend with the adjacent roadways features and to provide a suitable seed bed. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

IV. METHOD OF MEASUREMENT

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

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

C. Site Preparation. Other than the bid items listed, the Department will NOT measure Site Preparation for payment, but shall be incidental to the project bid items.

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D. Staking. See Special Note for Staking.

E. Ditching & Shouldering. Contrary to Section 209.04 the Department will measure the bid item DITCHING & SHOULDERING in linear feet along the centerline 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. The Department will not measure cleaning pipe structures 36 inches or less in diameter or reshaping any deformed ends on metal entrance pipes that are to remain in place, as these operations are considered incidental to the bid item DITCHING & SHOULDERING.

F. Embankment Benching. The Department will not measure Embankment Benching for payment. Any and all required embankment benching shall be incidental to the bid item DITCHING & SHOULDERING.

G. DGA, CSB. When listed as bid items, DGA and Crushed Stone Base shall be measured according to Section 302.04.

H. Chip Seal. When specified in the contract, the bid items associated with Chip Seal shall be measured according to the Special Note for Double Asphalt Seal Coat.

I. Channel Lining, Class II. When listed as a bid item, Class II Channel Lining shall be measured according to Section 703.04.

J. Geotextile Fabric, Class 1. When listed as bid items, Geotextile Fabric, Class 1 shall be measured according to Section 214.04.

K. Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection. The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental to the project bid items. Seeding and Protection shall be measured according to Section 212.

V. BASIS OF PAYMENT

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

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

C. Staking. See Special Note for Staking.

D. Ditching & Shouldering. The Department will make payment for the completed and accepted quantities under the bid item DITCHING & SHOULDERING. The Department

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will consider payment full compensation for furnishing all labor, materials, equipment, and incidentals necessary to perform Ditching & Shouldering as required by these notes, at the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.

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

SPECIAL 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, and Special Notes and Special Provisions, current editions. Article references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

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

II. MATERIALS

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

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

B. Culvert Pipe. Furnish pipe meeting the requirements of Section 810. Select pipe for pH range Medium and minimum fill cover height according to the applicable Standard or Sepia Drawings, current editions. Verify maximum and minimum fill cover height required for new pipe prior to construction and obtain the Engineer's approval of the class or gauge of pipe and type of coating prior to delivering pipe to project. Furnish approved connecting bands or pipe anchors and toe walls.

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

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

III. CONSTRUCTION METHODS

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

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

C. Site Preparation. Be responsible for all site preparation including, but not limited to, saw cutting and removing 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.

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- 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, and Drainage Boxes.** Construct culvert and/or entrance pipes, pipe extensions, headwalls, drainage boxes, and other drainage structures at the locations shown in the proposal or as designated by the Engineer. The contractor will establish, with the approval of the Engineer, the final centerlines, flow lines, and skews to obtain the best fit with the existing and/or proposed ditches and other proposed improvements. (See the Special Note for Staking.) Construct pipe bedding according to Section 701 and the applicable Standard or Sepia Drawings, current editions. Use approved connecting bands or concrete anchors as required. Prior to backfilling pipe, obtain the Engineer's approval of the pipe installation. Provide Positive drainage upon completion of pipe installation.
- F. Pipe Backfill.** Backfill entrance pipes according to Section 701.03.06. Contrary to Section 701.03.06, regardless of cover height, backfill culvert pipes with flowable fill as shown on the Culvert Pipe Replacement Detail from the outside edge of shoulder or back of curb to outside edge of shoulder or back of curb. Steel plates will likely be required to maintain traffic while the flowable fill cures. Once the flowable fill has sufficiently cured, place the Asphalt Base in lifts with thicknesses of 3-4 inches, up to the surface of the existing pavement. Seal with Leveling & Wedging. Allow the asphalt base and leveling & wedging to be exposed to traffic for a minimum of 14 days to allow for settlement. During the waiting period, level & wedge any settlement as directed by the Engineer. After the waiting period has been met for the last pipe replacement constructed, the final milling and/or surfacing operations can begin, unless directed otherwise by the Engineer. For culvert pipe beyond the outside edge of shoulder or back of curb, backfill according to Section 701.03.06.
- G. Embankments.** Backfill pipe and culvert extensions, and construct shoulder embankments as directed by the Engineer. The contractor shall bench into the existing slope and apply proper compaction according to Section 206. For more information and details on benching, refer to Note 2 on the detail sheet titled: DITCHING & SHOULDERING AND EMBANKMENT BENCHING DETAILS, found elsewhere in the Proposal. Provide positive drainage of ditches, shoulders, and slopes at all times during, and upon completion of construction.
- H. Property Damage.** Be responsible for all damage to public and/or private property resulting from the work. Repair or replace damaged roadway features in like kind materials and design, as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer

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at no additional cost to the Department.

- I. Coordination with Utility Companies.** Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of pipe replacement and pipe extension operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR'S OPERATIONS. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however, no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.
- J. Right-of-Way Limits.** The Department has not established exact limits of the Right-of-Way. Unless a consent and release form is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured by the Contractor at no additional cost to the Department. In the event that private improvements (i.e. fences, buildings, etc.) encroach upon the Right-of-Way, the contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.
- K. Clean Up, Disposal of Waste.** Clean up the project area as work progresses. Dispose of all removed concrete, pipe, pavement, debris, excess and unsuitable excavation, and all other waste at approved sites off the Right of Way obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.
- L. Final Dressing, Seeding and Protection.** Grade all disturbed areas to blend with the adjacent roadways features and to provide a suitable seed bed. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.
- M. Erosion Control.** See the Special Note for Erosion Control.
- IV. METHOD OF MEASUREMENT**
- A. Maintain and Control Traffic.** See the Traffic Control Plan.

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- B. Site Preparation.** Other than the bid items listed, site preparation will NOT be measured for payment, but shall be incidental to culvert and/or entrance pipe bid items, as applicable.
 - C. Remove Headwall.** The Department will measure the removal of existing headwalls as Each. Any excavation, including rock excavation, necessary to remove existing headwalls will NOT be measured for payment, but shall be incidental to the bid item "Remove Headwall".
 - D. Remove Pipe.** Removal of existing culvert and entrance pipe shall be measured according to Section 701.04.14. Any excavation, including rock excavation, necessary to remove existing pipe will NOT be measured for payment, but shall be incidental to the bid item "Remove Pipe".
 - E. Culvert and Entrance Pipe.** The Department will measure the quantities according to Section 701.04. Any excavation, including rock excavation, necessary to install culvert or entrance pipe shall be incidental to the corresponding pipe bid items.
 - F. Headwalls, Drainage Boxes.** The Department will measure according to Section 710. Any excavation, including rock excavation, necessary to construct headwalls and/or drainage boxes will NOT be measured for payment, but shall be incidental to the applicable bid item.
 - G. Excavation, Pipe Backfill, Embankments.** The Department will NOT measure for payment the following items: any excavation, including rock excavation, necessary to remove the existing pipe and/or install the proposed culvert or entrance pipe, pipe backfill material, geotextile fabric, flowable fill, and re-constructing shoulder embankments, but shall considered these items incidental to the bid items for culvert and entrance pipe.
 - H. Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection.** The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental to the project bid items. Seeding and Protection shall be measured according to Section 212.
 - I. Erosion Control.** See the Special Note for Erosion Control.
- V. BASIS OF PAYMENT**
- A. Maintain and Control Traffic.** See the Traffic Control Plan.
 - B. Remove Headwall.** The Department will make payment for the completed and accepted quantities of Each headwall removed. Payment at the Contract unit price per Each shall be full compensation for furnishing all labor, materials, equipment, and incidentals for removing the existing headwall.
 - C. Remove Pipe.** The Department will make payment according to Section 701.05. Payment at the Contract unit price per linear foot shall be full compensation for furnishing all labor,

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materials, equipment, and incidentals for removing the existing pipe.

- D. Culvert and Entrance Pipe.** The Department will make payment according to Section 701.05. Payment at the Contract unit price per linear foot shall be full compensation for furnishing all labor, materials, equipment, and incidentals necessary for installing and backfilling new culvert and entrance pipe.
- E. Headwalls, Drainage Boxes.** The Department will make payment according to Section 710.
- F. Erosion Control.** See the Special Note for Erosion Control.

SPECIAL NOTE FOR 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.

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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 stream.

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

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

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

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

The use of Temporary Mulch is encouraged.

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

After all construction is complete, restore all disturbed areas in accordance with Section 212. Completely remove all temporary erosion control devices not required as part of the permanent erosion control from the construction site. Prior to removal, obtain the Engineer's concurrence of items to be removed. Grade the remaining exposed earth (both on and off the Right-of-Way) as nearly

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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

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

V. BASIS OF PAYMENT

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

SPECIAL NOTE FOR 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 District Traffic Engineer will ball-bank the newly surfaced route to determine the appropriate advisory speeds and work with the Contractor to determine the final Signing Plan. 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.

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

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

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

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

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

SPECIAL NOTE FOR SIGNING

I. DESCRIPTION

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

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

II. MATERIALS

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

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

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

III. CONSTRUCTION METHODS

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

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

C. Staking. See Special Note for Staking.

D. Signs and Posts. Before beginning installation, the Contractor shall furnish to the Engineer drawings, descriptions, manufacturer's cuts, etc. 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

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

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

When listed 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

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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 XI Sheeting)
- White and yellow (Type XI 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 signs.

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.

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

H. 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.

I. 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.

J. 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.

K. 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.

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- 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. Type D Breakaway Sign Supports.** The Department will measure Type D sign supports as Each support installed.
- F. Type D Surface Mounts.** The Department will measure Type D Surface Mounts as Each surface mount installed.
- G. Class A Concrete for Signs.** The Department will measure the Class A Concrete used in conjunction with Type D breakaway sign support installations in Cubic Yards. Any concrete that is required as backfill due to hitting rock during a standard installation shall be incidental to the bid item STEEL POST TYPE I, and soil stabilizers will not be required.
- H. Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection.** The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental. Seeding and Protection shall be measured according to Section 212.
- I. Erosion Control.** See Special Note for Erosion Control.
- J. Remove Sign.** The Department will consider all signs attached to one or more connected posts as a single sign. The Department will measure as Each sign assembly removed and NOT each individual sign removed.
- K. 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.

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- 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. Type D Breakaway Sign Supports.** The Department will make payment for the completed and accepted quantities under the bid item GMSS TYPE D. The Department will consider payment full compensation for all work and incidentals necessary to install the Type D breakaway sign supports as required by Standard Drawing RGX-065, current edition.
- E. Type D Surface Mounts.** The Department will make payment for the completed and accepted quantities under the bid item GMSS TYPE D (SURFACE MOUNT). The Department will consider payment full compensation for all work and incidentals necessary to install the Type D surface mounts according to all applicable manufacturer requirements.
NOTE: The permissible Type D Surface Mount alternative is: Kleen Break Model 425 for Surface Mount Concrete Installations by Xcessories Squared of Auburn, IL
- F. Class A Concrete for Signs.** The Department will make payment for the completed and accepted quantities, used in conjunction with Type D breakaway sign support installations, under the bid item CLASS A CONCRETE FOR SIGNS. The Department will consider payment full compensation for all work and incidentals necessary to install the concrete as required by Standard Drawing RGX-065, current edition.
- G. Remove Sign.** The Department will make payment for the completed and accepted quantities under the bid item REMOVE SIGN. The Department will consider payment full compensation for all work and incidentals necessary to remove the existing signs, posts, anchors, and any other sign material or hardware, from the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.
- H. Erosion Control.** See Special Note for Erosion Control.

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. Using the proposed pavement superelevation rates, runout, and runoff lengths, determine the necessary changes in pavement edge elevation along the curves and the transitions leading into and out of the curve to achieve the proposed superelevation improvements. The intent is to provide a consistent superelevation throughout the curves and smooth transitions into and out of the curves. Once the proposed changes in pavement edge elevations are determined and prior to starting paving operations, verify the proposed roadside re-grading along the curve can be constructed so that the new roadside is flush with the new pavement edge elevation and the new toe of slope, or top of cut, will remain within the existing Right-of-Way and/or not impact a sensitive obstruction. If necessary, and with the approval of the Engineer, reduce the proposed superelevation rate of a curve if the new edge of pavement elevation will cause the new roadside grading to extend beyond the Right-of-Way and/or impact a sensitive obstruction. Alternatively, with the approval of the Engineer and to the extent allowable by the "Ditching & Shouldering and Embankment Benching Details" and/or the Special Note for Ditching & Shouldering, the Contractor may be allowed to make adjustments to the roadside grading so the proposed roadside re-grading will remain within the existing Right-of-Way and/or not impact a sensitive obstruction. After the final proposed changes in pavement edge elevations are determined and before paving operations begin, submit to the Engineer and obtain approval for the number of asphalt lifts, each asphalt lift's thickness, and the asphalt mix type of each lift the contractor plans to use to achieve the superelevation improvement. 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. Using stakes, paint marks on the pavement, mag nails, and/or any other means approved by the Engineer, the Contractor shall mark and/or stake the proposed sign locations in the field. NOTE: The proposed signs are listed in the proposal by approximate location and are NOT to be taken as the exact location for the signs. During staking operations the Contractor shall review the signing layout and existing field conditions and look for potential conflicts, including but not limited to utilities, driveways, visual obstructions, etc. When conflicts are found, adjust the staked location of signs to mitigate conflicts. Because the sign locations in the proposal are approximate and the location of some signs may need to be adjusted due to conflicts, during staking operations the Contractor shall refer to and utilize the information in the Manual on Uniform on Traffic Control Devices

Staking
Page 2 of 2

(MUTCD), current edition. The MUTCD cover items such as: appropriate sign location, advance placement distances, and spacing requirements for signing. The intent is for the proposed signs to be consistent with, and meet the requirements of, the MUTCD. Once the proposed sign locations have been staked, notify and coordinate with the District Traffic Engineer, and perform a review of the staked locations. Adjust the staked locations, as directed by the District Traffic Engineer and obtain approval of the final staked locations. This review will also be used to determine if there are any existing signs that require removal and/or relocation. Provide the District Traffic Engineer with 2 weeks of notice when a route will be ready for a review of the staked locations. NOTE: The District Traffic Engineer may determine that the proposed signing, including sign types and messages, needs to be adjusted and/or modified from what is shown in the proposal. Therefore, the Contractor shall not order any sign material for a route until the route has been staked and final sign location approval has been given by the District Traffic Engineer.

5. Produce and furnish to the Engineer "As Built" information for the superelevation improvements and the drainage improvements. For superelevation improvements, as built information will consist of a record of the final pavement cross slopes every 50 feet, for each lane of travel along the curves and the transitions into and out of the curves. Elevation data of the curve improvements is not necessary; simply the cross slope percentage every 50 feet. For the drainage improvements, as built information will consist of a final record of the actual types, sizes, and locations of the drainage structures (i.e. box inlets, headwalls, junction boxes, etc.), culvert pipes, and/or box culverts constructed. Final elevation data of the drainage improvements is not necessary.
6. Using paint marks on the pavement, and/or any other means approved by the Engineer, the Contractor shall layout and pre-mark the proposed striping, pavement markings, etc. Adjust as necessary to accommodate the existing site conditions and to provide proper alignment of the proposed thru and turning lanes. Obtain approval of the pre-marked layout from the Engineer and/or District Traffic Engineer prior to installing the striping and/or pavement markings.
7. Prior to incorporating into the work, obtain the Engineers approval of all revisions determined by the Contractor.
8. Perform any and all other staking operations required to control and construct the work.

SPECIAL NOTE

For Tree Removal

**Jessamine County
PERFORM LOW COST SAFETY IMPROVEMENTS ON US
68 FROM MP 0.00 TO MP 4.807
Item No. 07-9009**

**NO CLEARING OF TREES 5 INCHES OR GREATER (DIAMETER BREST
HEIGHT) FROM APRIL 1 THROUGH OCTOBER 14.**

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

SPECIAL NOTE FOR TREE, 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, trim, and/or remove trees within the clearing dimensions as shown on the Tree Trimming Detail. On this detail, the horizontal width is taken from the edge of pavement measured perpendicular to the roadway, but not to extend beyond the obvious Right-of-Way limits, or as directed by the Engineer. To achieve the tree trimming/clearing dimensions shown on the Tree Trimming Detail, the complete removal of some trees may be necessary. The Department's expectation is that if the trunk or any portion of the trunk of any tree is within the tree trimming/clearing dimensions shown on the Tree Trimming Detail, any such tree shall be cut and removed as part of this bid item. Additionally, if

Tree, Stump, & Brush Removal Page 2 of 5

there are trees whose main trunk is not within the tree trimming/clearing dimensions, but more than approximately 50% of the tree's canopy will be removed due to trimming, any such tree shall be cut and removed as part of this bid item. Cut trees and/or bushes as close to the ground as possible; three inches (3") or less from ground line. All tree stumps within the mowing zone shall 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 herbicide solution specified below. The Contractor and Engineer should work together to identify the trees and/or stumps requiring removal. The Engineer will make the final determination on the decision to remove or leave any trees and/or stumps in question.

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

NOTE: Tree cutting restrictions apply. See the Special Note for Tree Removal for details on the restrictions.

- 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 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

Tree, Stump, & Brush Removal
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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

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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 project bid items.
- C. Trim & Remove Trees & Brush.** The Department will measure the quantity by Linear Foot, per side of the highway. See the Tree Trimming Detail for the horizontal and vertical tree trimming/clearing dimensions.
- D. Stump Treatment.** The Department will NOT measure for payment the operation of Stump Treatment. This activity shall be incidental to the bid item "Trim & Remove Trees & Brush".
- E. Clean Up, Disposal of Waste.** The Department will NOT measure for payment the

Tree, Stump, & Brush Removal
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operations of Clean Up and Disposal of Waste. These activities shall be incidental to the project bid items.

F. Final Dressing, Seeding and Protection. The Department will NOT measure for payment the operations of Final Dressing. 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 the Traffic Control Plan.

B. Trim & Remove Trees & Brush. 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 and brush.

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

SPECIAL NOTE FOR EMBANKMENT SLIDE REPAIR

I. DESCRIPTION

Except as specified herein, perform all work in accordance with the Department's Standard and Supplemental Specifications and 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) Furnish and install railroad rails;
- (3) Furnish and install cribbing;
- (4) Excavate, place geotextile material, and backfill the area around the railroad rails and on the fill slope;
- (5) Reconstruct shoulder area;
- (6) Install guardrail;
- (7) Maintain and Control Traffic; and
- (8) any other work as specified by this contract.

Repairs using drilled railroad steel and guardrail cribbing are to occur at locations indicated on the Plan Sheets and/or Summary Sheets. Begin and End limits at each area are to be field verified with approval from the Engineer.

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. Railroad Rails.** Use recycled (used) railroad rails classified with a nominal weight of 130 lb/yd (pounds per yard) size or greater. Use only visibly straight recycled railroad rails with no splices. The Engineer will verify rail nominal weights (Manufacturer's Stamp with lb/yd, date, etc.) Provide Certification for nominal weight if the Manufacturer's Stamp is unidentifiable.
- B. Wall Cribbing.** Use recycled (used) steel "W" beam guardrail. **Cribbing material will be furnished by the Department of Highways.** Wall cribbing will be located at the *Bailey Bridge Yard in Frankfort, KY.* The Contractor will be responsible for picking up the cribbing material and delivering it to the project site as an incidental item.
- C. Backfill material for Drilled Sockets.** Use the following for backfill material for Drilled sockets: concrete, free flowing sand, pea gravel, crushed limestone, or crushed sandstone. Use backfill material with one hundred percent (100%) passing a one-half (1/2) inch sieve. Do not use auger tailings. Engineer will use visual inspection and/or material testing, as applicable to determine acceptability.

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- D. Fill Material for CRIBBING.** Use one of the following backfill materials: Kentucky Aggregate Gradation No. 2's or larger. Backfill material shall meet requirements of Section 805. The Engineer will use visual inspection and/or material testing, as applicable, to determine acceptability.
- E. DGA.** Furnish DGA as per Section 805. Do not use Crushed Stone Base.
- F. Final Dressing, Seed and Protection.** Use seed mixture(s) according to Section 212.
- G. Geotextile Fabric.** Furnish Geotextile Fabric Type IV as per Section 843.
- H. Erosion Control.** See Special Note for Erosion Control.

III. CONSTRUCTION METHODS

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Staking.** Establish proper slope elevations and ratios, shoulder widths, existing ditch profile and final ditch profile to insure positive drainage. Be responsible for field layout. Positive drainage is required upon completion of the project and is the responsibility of the Contractor.
- C. Site Preparation.** Prepare repair sites. This includes clearing and grubbing, if necessary. Remove all obstructions. Sweep and remove debris, if necessary. The area to be cleared has not been measured by the Department and the bidder must draw his own conclusions. Construct silt checks, temporary silt fence, or other erosion control devices, as necessary to satisfy the BMP, at locations directed by the engineer. The engineer shall approve all site preparation. The Department will not make direct payment for site preparation.
- D. Installation of Railroad Rails.** See attached summary for site locations and estimated quantities of materials required. The depth to rock shown on the summary is approximate. No geotechnical borings were advanced, and, as such, rock depths may differ from those estimated. Therefore the contractor is responsible for determining actual depth to rock and providing to the department to be approved by the engineer. The embankment failures at these sites are caused by erosion from steep slopes and poor drainage.

NOTE TO ENGINEER AND CONTRACTOR: ABSOLUTELY NO CHANGE IN SCOPE OF WORK OR INCREASE IN QUANTITIES WILL BE ALLOWED ON THIS PROJECT WITHOUT PRIOR WRITTEN APPROVAL FROM THE TEBM

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(Transportation Engineering Branch Manager) OR HIS REPRESENTATIVE IN THE DISTRICT OFFICE.

THE DEPARTMENT SHALL NOT BE LIABLE FOR PAYMENTS DUE TO ADDITIONAL WORK THAT HAS NOT BEEN AUTHORIZED BY THE AFOREMENTIONED PERSONS.

Install used railroad rail piling in drilled sockets in rock or stable material under the landslides (see figure 1) or the eroded areas (see figure 2) as project location dictates or as directed by the Engineer.

Drill the socket, furnish, and install the railroad rails into holes at slide locations. If the Engineer determines from sounding obtained at a drilled socket that railroad rail piling cannot be used in that socket, the depth of the socket shall be measured and 50% of the depth shall be paid as "Railroad Rail-Drilled". Drill sockets into solid rock, if possible. The Department will monitor each hole, which will serve as a sounding for the rail to be installed in it. Embed the railroad rail into solid rock no less than one-half the free end length of the rail. (See figure 1 and figure 2). If solid rock cannot be obtained, the Engineer will determine the length of embedment required in other stable foundation. Allow adequate size of the drilled socket to allow free insertion of the railroad rail, but the maximum socket size is 1 foot in diameter.

After each hole is drilled, install railroad rail immediately with the flanges positioned perpendicular to the direction of the landslide or break (see figure 3). Determine the height of rail that is needed to reestablish pavement and shoulder typical section. Cut off excess rail flush with the proposed ground line that is not needed. Use cutoffs elsewhere in the project if possible; unusable cutoffs remain the property of the Contractor.

After railroad rail is installed, immediately backfill the drilled hole with the approved materials. Shovel the backfill material into the hole in small amounts. Avoid bridging between the rail and the sides of the hole. Do not use Auger tailings as backfill material.

When double or triple rows are required, stagger the rows to obtain the required spacing. Keep the spacing between the rows of rails as close as is practical; do not space between the rows of more than 2 feet, if possible. See figure 3 (Case II and Case III) for the diagrams showing two (2) or three (3) rows of rails. Select the spacing as per Table 1 for all 130 pound per yard rail or greater. The Department shall approve the selection prior to work being performed.

Crib any exposed portion of railroad rail before placing backfill.

- E. Excavation and Backfill.** Excavate each repair area to provide a platform for drilling the used railroad rails, if necessary. Excavate for roadway ditches as necessary for

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slope, shoulder and pavement drainage. Place geotextile fabric, then construct embankment behind railroad rails, cribbing, and on slope, as per Section 206. Construct embankment up to the approximate existing pavement elevation.

Reconstruct the shoulder area with DGA up to the approximate existing elevation and width of the surrounding typical section or to a minimum width of 2 Feet at each slide location. Do not pond water on the shoulder area or at the shoulder edge. Reconstruct the shoulder before installing guardrail.

DO NOT USE EXCAVATED MATERIAL FROM THE SITE AS FILL MATERIAL. Excess excavation may be wasted at sites on the right-of-way, ONLY if approved by the Engineer. Material may NOT be wasted in flood prone areas or in streams.

If the Engineer deems no suitable sites are available within the right-of-way, the Contractor will be required to waste excess material off the right-of-way at sites obtained by the Contractor at no cost to the Department.

- F. Installation of Wall Cribbing.** Install Cribbing as shown on Figure 1 or Figure 2 as slide location dictates or as directed by the Engineer. Extend wall cribbing 2 feet below the existing ground line. If bedded rock is encountered, install the cribbing to the bedded rock only. If necessary, the Engineer will direct changes to this procedure. Furnish all labor and equipment to deliver and install wall cribbing on the recycled (used) railroad rail piling. Wall cribbing shall be lapped, bolted, and attached solid to the drilled railroad rails.
- G. Final Dressing, Seeding and Protection.** Apply Final Dressing, Class A to all disturbed areas, both on and off the right-of-way. Sow with Seed Mixture No. 1. The Department will NOT make direct payment for final dressing, or seeding and protection, but shall be incidental to Erosion Control.
- H. On-Site Inspection.** Each Contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting his bid and shall thoroughly familiarize themselves with the existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made.
- I. Right-of-Way Limits.** The Department has not established exact limits of the Right-of-Way. The Contractor shall make every effort to limit his activities to obvious right-of-way and permanent or temporary easements and shall be responsible for encroachments onto private lands.
- J. Property Damage.** The Contractor will be responsible for all damage to public and/or private property resulting from his work.

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K. Erosion Control. See Special Note for Erosion Control.

IV. METHOD OF MEASUREMENT

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

B. Staking. See Special Note for Staking.

C. Site Preparation. Other than the bid items listed, site preparation will NOT be measured for payment, but shall be incidental to the bid item Excavation and Backfill.

D. Railroad Rail-Drilled. The Department will measure the finished in-place length of this item in Linear Feet. Laps, cutoffs, excess, and waste will NOT be measured for payment. If the Engineer determines from the sounding obtained at a drilled socket that railroad rail piling cannot be used in that socket, the depth of the socket shall be measured and 50% of the depth shall be paid as Railroad Rail-Drilled.

E. Excavation and Backfill. The Department will measure this item in cubic yards. The Department will measure the quantity in the field as per Section 204 (Roadway Excavation) or other accepted methods of measurement as directed by the Engineer.

F. Wall Cribbing. The Department will measure this item in square feet finished in placed area. Laps, cutoffs, excess and waste will not be measured for payment.

G. Geotextile Fabric. The Department will measure Geotextile Fabric Type IV according to Section 214.

H. DGA. The Department will measure according to Section 302.

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

J. Final Dressing, Seeding and Protection. The Department will NOT measure for payment the operation of Final Dressing. This shall be incidental. The Department will measure Seeding and Protection according to Section 212.

K. Erosion Control. See Special Note for Erosion Control.

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V. BASIS OF PAYMENT

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Staking.** See Special Note for Staking.
- C. Railroad Rail-Drilled.** The Department will make payment for the completed and accepted quantities under the bid item: Railroad Rail-Drilled. The Department will consider payment full compensation for all work required in these notes and elsewhere in the Contract.
- D. Excavation and Backfill.** The Department will make payment for the completed and accepted quantities under the bid item: Excavation and Backfill. Payment will be based on quantity measured in the field. The Department will consider payment full compensation for all work and incidentals necessary to excavate and backfill the areas indicated on the plans or as directed by the Engineer.
- E. Wall Cribbing.** The Department will make payment for the completed and accepted quantities under the bid item: Cribbing. Payment will be based on the quantity installed in the field. The Department will not make separate payment for the hauling of the wall cribbing to the project site(s). The Department will consider payment full compensation for all work required on the project.
- F. Geotextile Fabric.** The Department will make payment of Geotextile Fabric Type IV according to Section 214.
- G. DGA.** The Department will make payment according to Section 302.
- H. Erosion Control.** See Special Note for Erosion Control.

SPECIAL NOTES FOR PAVEMENT EDGE REPAIR

Repair locations listed on the summary are approximate only. The Engineer will determine actual repair locations and dimensions at the time of construction. Prior to milling and/or resurfacing, saw cut the existing pavement, asphalt surface, base, subgrade, and PCC pavement (if present). Excavate to an approximate depth of 16.25 inches below the existing pavement surface level. Use all possible care to avoid damaging existing culvert pipes and any existing underground utilities. Repair or restore any damaged items at no additional cost to the Department. Waste all removed materials 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.

On the same day trench is excavated, backfill the excavated area with 6.0 inches of Crushed Aggregate Size No. 23, wrapped on the bottom and sides in Class 2 Geotextile Fabric, 9.0 inches of Class 2 Asphalt Base 1.00D PG64-22 in 3.0 inch maximum courses, and 1.25 inches of Class 2 Asphalt Surface 0.38B PG64-22 up to the existing pavement surface. Compact the asphalt base to the proper compaction as required by Section 403. Seal the asphalt base with leveling and wedging. Perform all base failure/edge repairs in such a manner that removal and replacement are completed on the same day. Do this work as one of the Contractor's first operations in order to allow further compaction by traffic. Do not mill or place new asphalt surface over repaired areas until a minimum of 14 calendar days have elapsed after placement of the final course of asphalt base. After the 14 calendar day waiting period, and/or when the Engineer determines the base failure/edge repair areas have sufficiently stabilized, begin milling and/or resurfacing operations. Prior to milling and/or constructing the new asphalt surface, level and wedge any settlement of the repair areas.

The bidder must draw his or her own conclusions as to the conditions to be encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation of the materials encountered that are not in accord with the classification shown.

Accept payment at the Contract unit prices per ton for Crushed Aggregate Size No. 23, Asphalt Base, Leveling and Wedging, and Asphalt Surface as full compensation for all labor, materials, equipment, and incidentals for saw cutting pavement and excavating and disposing of all materials; furnishing and placing Crushed Aggregate Size No. 23 wrapped in geotextile fabric; furnishing and placing asphalt base up to the existing pavement boundary; leveling and wedging until the repair areas stabilize; and all other items necessary to complete the work according to these notes to the satisfaction of the Engineer. The Department will not measure pavement removal, excavation, and geotextile fabric, but shall be incidental to Crushed Aggregate Size No. 23 and Asphalt Base as applicable.

SPECIAL NOTE FOR POLYMER CONCRETE OVERLAY SYSTEMS

I. DESCRIPTION

This work shall be performed in accordance with the current edition of the Department’s Standard Specifications, and applicable Standard or Sepia Drawings, except as hereafter specified. Article references are to the Standard Specifications.

The Contractor shall furnish all materials, labor, and equipment for the following work:

- (1) Maintaining and Controlling Traffic; (2) Cleaning and preparing the existing surface; (3) Installing a high friction surface treatment in accordance with the contract documents; and (4) All other work as specified as part of this contract.

II. MATERIALS

Provide for sampling and testing of all materials in accordance with the Department's Materials Field Sampling and Testing Manual. Make materials available, within the State of Kentucky, for sampling a sufficient time in advance of the use of the materials. Allow a minimum of 15 working days for testing. The Contractor shall use materials listed on the Department’s List of Approved Materials for Polymer Concrete Overlay Systems (High Friction Surface and Bridge Deck Overlays).

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

B. High Friction Surface Treatment. The high friction surface treatment shall consist of a polymer resin binder and aggregate system chosen from the Department’s List of Approved Materials. The Department will obtain samples of each binder component and aggregate at a frequency of one sample per lot per contract. The Department will obtain one, one-quart (32 ounce) sample of each binder component for testing. The Department will obtain one 60 to 70 pound composite sample of aggregate for testing. Reclaimed aggregate shall not be allowed for use.

- a) **Binder.** The polymer resin binder shall hold the aggregate firmly in position and meet the following requirements:

TWO-PART MODIFIED BINDER REQUIREMENTS		
Property	Specification Limits	Test Method
Ultimate Tensile Strength	17.0 – 25.0 MPa (19.65 MPa)	ASTM D638
Compressive Strength	5mm min.; > 13 MPa	ASTM D695
Gel Time	50 ml; 10 minutes min. (16 minutes)	ASTM D2471
Elongation at break	30% minimum (54.0%)	ASTM D638
Peak Exothermic Temperature	150°F min.	ASTM D2471
Water Absorption	Less than 0.25%	ASTM D570
Shore Hardness	70 min.	ASTM D2240, Shore D
Cure Rate	3 hours max	ASTM D1640 @ 75°F
Mixing Ratio	Per Manufacturer’s Recommendation	n/a

- b) **Aggregate.** Ensure that the aggregate is clean, dry and free from foreign matter and meets the following requirements:

AGGREGATE REQUIREMENTS		
Property	Specification Limits	Test Method
SFC – Side Force Coefficient	0.70 min.	ASTM E670
SN – Skid Number	75 min SN40R	ASTM E274
PSV – Polished Stone Value	75.0 mm max. (70 mm)	ASTM E660
Texture Depth – Sand Patch Method	1 mm min. (1.2 mm)	ASTM E965
AAV – Aggregate Abrasion Value	20 max	AASHTO T96
Aggregate Gradation	95.0 – 100.0% Passing No. 6 0.0 – 5.0% Passing No. 16	AASHTO T27
Aluminum Oxide (Al ₂ O ₃)	87 min	ASTM C114

III. CONSTRUCTION METHODS

Prior to beginning work, provide the Engineer with a certification from the manufacturer of the binder stating that all material used in the work will meet the requirements of Section II B. a. in this Special Note. Also provide the Engineer with a certification stating that all aggregates used in the work will meet the requirements of Section II B. b. of this Special Note.

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

B. Site Preparation. Be responsible for all site preparation, including but not limited to the following:

- a) **Preparation and Restoration.** Ensure that a manufacturer’s representative is on site to provide technical assistance during the start up operations and as necessary during the surface preparation, material placement, and during any necessary remedial work.
- b) **Protective Coverings.** Utilities, drainage structures, curbs, bridge joints, and any other structure within or adjacent to the high friction surface treatment location shall be protected from surface preparation activities and application of the surface treatment materials. Cover and protect all existing pavement markings that are adjacent to the surface treatment location. Pavement markings that conflict with the surface application shall be removed prior to performing the required surface preparation.
- c) **Surface Preparation.** Prepare all surfaces in accordance with the following requirements. Ensure surfaces are dry and meet the requirements of the section immediately prior to installation of the high friction surface treatment. Surfaces contaminated with oils, greases, or other deleterious materials not removed by the required surface preparation shall be washed with a mild detergent solution, rinsed with clean potable water, and dried using a hot compressed air lance.
- d) **Asphalt Pavement.** Clean asphalt pavement surfaces using mechanical sweepers and high pressure air wash. Mechanically sweep all surfaces to remove dirt, loose aggregate, debris, and deleterious material. Air wash all surfaces using a minimum of 180 CFM clean and dry compressed air. Maintain

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the air lance perpendicular to the surface and the tip of air lance within 12 inches of the surface. For applications on new asphalt pavement, ensure the surface has cured a minimum of 30 days prior to performing surface preparation and installation of the high friction surface treatment.

- e) **Concrete Pavement.** Clean concrete pavement surfaces by shot blasting and vacuum sweeping. Shot blast all surfaces to remove all curing compound, loosely bonded mortar, surface carbonation, and deleterious material. The prepared surface shall comply with the International Concrete Repair Institute (ICRI) standard for surface roughness CSP 5. After shot blasting, vacuum sweep all surfaces to remove all dust, debris, and deleterious material.
- f) **Concrete Bridge Deck.** Clean the entire area of the deck surface and vertical faces of curbs, barrier walls and plinths up to a height of one inch above the top elevation of the overlay, and areas to receive epoxy-sand slurry, by shot blasting and vacuum sweeping. Shot blast all surfaces to remove all curing compound, loosely bonded mortar, surface carbonation, and deleterious material. Areas to receive epoxy-sand slurry shall be cleaned to a bright, clean appearance. The prepared bridge deck surface to receive high friction surface treatment shall comply with the International Concrete Repair Institute (ICRI) standard for surface roughness CSP 5. After shot blasting, vacuum sweep all surfaces to remove all dust, debris, and deleterious material.
- g) **Pre-Treating.** Pre-treat joints and cracks greater than 1/4 inch in width and depth with properly proportioned and mixed polymer resin binder. Once the binder in the pre-treated areas has gelled, the installation of the high friction surface treatment may proceed.

- C. **Mechanized Application.** Do not apply surface treatment on a wet surface, when the ambient air or surface temperature is below 50°F or above 110°F, or when the anticipated weather conditions or surface temperature would prevent the proper application of the surface treatment as determined by the manufacturer.

Apply the polymer resin binder by a truck or trailer mounted application machine that must be capable of continually mixing and delivering the binder components on demand within the temperature range specified in varying widths of up to 12 feet wide at a uniform application thickness. Ensure that the mechanically applied distributing equipment includes accurate measuring devices and/or calibrated containers and thermometers for measuring the binder temperature prior to placement should heating be required. Operations will proceed in such a manner that will not allow the binder material to separate in the mixing lines, cure, dry, or otherwise impair retention bonding of the high friction surfacing aggregate. The application machine shall be equipped with flushing systems such that blockages of lines will not occur, and installation operations are not delayed, stopped, or otherwise compromised. Ensure that mechanical applications are capable of applying binder uniformly at a minimum rate of 10 gallons per minute. The mixed components are mechanically applied onto a prepared surface with a minimum coverage rate of 3.5 square yards per gallon at a minimum uniform thickness of 50 mils onto the surface. In addition, ensure that the application machine complies with the requirements of the binder manufacturer.

The aggregate shall be applied within 120 seconds of the binder application onto the surface. Uniformly spread aggregate immediately without causing excessive overlap of aggregate outside of coverage area. Ensure that the mechanical aggregate spreader is capable of applying a continuous application of varying widths up to 12 feet wide, in a manner to not violently disturb the wet binder film, at a rate of approximately 13-15 lbs per square yard. Complete coverage of the "wet" binder with aggregate is necessary to achieve a uniform surface. No exposed wet spots of the binder shall be visible once the aggregate is installed. The operations should proceed in such a manner that will not allow the mixed binder material to separate, cure, dry, be exposed, or otherwise harden in such a way as to impair retention and bonding of the high friction surfacing aggregate. Do not use reclaimed aggregate. Do not use vibratory or impact type compaction on the aggregate after placement.

- D. **Hand Application.** At the Engineers discretion, corrective work and application to areas such as intersections or areas less than 300 square yards, or where truck mounted application machines are not

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applicable to the specified locations because of logistical restrictions, may be performed by hand application of the high friction surface treatment.

Do not apply surface treatment on a wet surface, when the ambient air or surface temperature is below 50°F or above 110°F, or when the anticipated weather conditions or surface temperature would prevent the proper application of the surface treatment as determined by the manufacturer.

The polymer resin binder components Part (A) and Part (B) shall be proportioned to the correct ratio (+/- 2% by volume), mixed using a low speed high torque drill fitted with a helical stirrer.

The mixed components shall be hand applied onto a prepared surface at a minimum coverage rate of 3.5 square yards per gallon at a minimum uniform thickness of 50 mils onto the surface. Hand applied binder will be uniformly spread onto the prepared surface by the use of a continuous V notch serrated edged squeegee.

Immediately after placing the binder, apply the aggregate, in a manner to not violently disturb the wet binder film, at a rate of approximately 13-15 lbs per square yard. Do not use reclaimed aggregate. Do not use vibratory or impact type compaction on the aggregate after placement.

- E. Curing of Installed High Friction Surface Treatment.** Allow the installed high friction surface treatment to cure in accordance with manufacturer recommendations (approximately 3 hours at an ambient air temperature of at least 50 degrees Fahrenheit). Protect treated surfaces from traffic and environmental effects until the area has cured.
- F. Removal of Excess Aggregate.** Remove the excess aggregate from the treatment area and all adjacent surfaces by mechanical sweeping or vacuum sweeping the surfaces a minimum of 3 times before applying additional application and/or opening to traffic. In addition, re-sweep the treatment area and adjacent surfaces using mechanical sweeping or vacuum sweeping 48 hours after opening to traffic to remove all additional loose aggregate and aggregate shed by the action of traffic.
- G. Disposal of Waste.** All debris, excess aggregate, materials containers, and other waste shall be disposed of off the Right-of-Way at approved sites obtained by the Contractor at no cost to the Department. No separate payment will be made for the disposal of waste and debris from the project, but shall be incidental to the other items of the work.
- H. Restoration.** Any roadway features disturbed by the work or the Contractor's operations shall be restored in like kind materials and design as directed by the Engineer at no additional cost to the Department.
- 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. 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.
- K. Right-of-Way Limits.** All work is located within the existing right of way. Limit work activities to the Right-of-Way, and work and staging areas secured by the Contractor, at no additional cost to the Department. Be responsible for all encroachments onto private lands.
- L. Caution.** The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions when developing the Unit Bid Prices for each bid item. As such, if the conditions encountered are not in accordance with the information shown, the Department does not

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guarantee any changes to the Unit Bid Prices nor extension of the contract will be considered. The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.

- M. Control.** Perform all work under the absolute control of the Department of Highways. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces, and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties.

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

IV. FIELD EVALUATION

High friction surface treatment locations that can be safely tested at 40 mph shall be evaluated by locked wheel skid test as per ASTM E274 between 60 and 90 days after installation. A minimum skid number of 75 SN40R is required. Installations that are not conducive to skid testing due to roadway geometrics or speed limitations shall be accepted based upon visual determination of acceptable bond and aggregate exposure.

Surface treatment applications not meeting average minimum skid test results of 75 SN **shall be removed and replaced** at no cost to the Department.

V. 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 high friction surface treatment.
- C. High Friction Surface Treatment.** The Department will measure the surface area coverage of High Friction Surface Treatment in Square Yards.

VI. BASIS OF PAYMENT

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. High Friction Surface Treatment.** Payment for the accepted quantity at the Contract unit price per Square Yard shall be full compensation for furnishing all labor, materials, equipment, and incidentals for furnishing and installing High Friction Surface Treatment. Payment shall not be made prior to the final and accepted sweeping, 48 hours after installation.

SPECIAL NOTE FOR STRIPING ON HIGH FRICTION SURFACE TREATMENTS

I. DESCRIPTION

Installation of pavement striping, temporary, durable waterborne markings, and/or thermoplastic markings on High Friction Surface (HFS) Treatments.

II. CONSTRUCTION

Conduct striping under lane closures meeting the conditions of the MUTCD and Kentucky Standard Drawings and Specifications, current editions. Upon initial completion of the HFS installation, install temporary striping as the Engineer directs. Upon completion of the 48 hour vacuum sweeping, install either durable waterborne markings or thermoplastic markings, whichever the Contract specifies or as directed by the Engineer. Temporary Pavement Striping will comply with all applicable requirements within Section 112. Thermoplastic markings shall comply with all applicable requirements within Section 714. Durable waterborne markings shall comply with all applicable requirements within Section 713.

III. MEASUREMENT

The Department will measure striping quantities in linear feet. NOTE: On HFS installations, the Contractor is advised that it may be necessary to install multiple passes of striping in order to achieve the required specifications. Final payment will be based on the actual length of the final striping regardless of the number passes required to meet specifications.

IV. PAYMENT

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

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
----	Pavement Striping - Temporary	Linear Foot
----	Durable Waterborne Marking, width, color	Linear Foot
----	Pavement Striping - Thermoplastic, width, color	Linear Foot

The Department will consider payment as full compensation for all work required under this note, Section 112, Section 713, and Section 714.

Special Note for Completion Date & Liquidated Damages

I. COMPLETION DATE

The ultimate fixed completion date for this project will be July 31, 2023. Liquidated Damages for failure to complete the project on time will be assessed following Section 108.09.

II. LIQUIDATED DAMAGES

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages in the amount of **\$1,000** per hour for each hour, or fraction of an hour, for any and all lane closures that are in place beyond the time frame(s) noted in the Traffic Control Plan and approved by the Engineer.

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.

Trees and/or bushes that are 5 inches or greater (diameter at breast height) shall not be cut or trimmed between June 1st and July 31st. Any trees and/or bushes that are cut or trimmed between June 1st and July 31st will **NOT** receive payment at the contract unit price. Furthermore, failure to adhere to these restrictions shall result in Liquidated Damages in the amount of **\$360** per affected tree. Activities that are a part of this contract that do not involve the initial trimming and/or cutting of trees and/or bushes will be permitted under the ultimate fixed completion date.

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

All liquidated damages will be applied accumulatively.

All other applicable portions of Section 108 apply.

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 asphalt and 20 lbs/sy of size #9M seal coat aggregate. The Engineer may adjust the rate of application as conditions warrant. Use caution in applying liquid asphalt material to avoid over spray getting on curbs, gutter, barrier walls, bridges, guardrail, and other roadway appurtenances.

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

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

SPECIAL NOTES FOR SHOULDER FAILURE REPAIR

Repair locations listed in the summary are approximate only. The Engineer will determine the actual shoulder failure repair locations and dimensions at the time of construction. Prior to milling and/or resurfacing, saw cut the existing pavement, asphalt surface, base, DGA, and PCC pavement (if present). Excavate to an approximate depth of 14 inches below the top of the existing shoulder pavement level. Remove and dispose of all materials. Use all possible care to avoid damaging existing culvert pipes and any existing underground utilities. Repair or restore any damaged items at no additional cost to the Department. Waste all removed materials 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.

On the same day trench is excavated, backfill the excavated area with 9.75 inches of Crushed Limestone Size No. 23, wrapped on the bottom and sides in Class 2 Geotextile Fabric, 3 inches of Class 2 Asphalt Base 1.00D PG64-22, and 1.25 inches of Class 2 Asphalt Surface 0.38D PG64-22 up to the existing shoulder pavement surface. Compact the asphalt base to the proper compaction as required by the Section 403 and seal with Leveling and Wedging. Perform all shoulder failure repairs in such a manner that removal and replacement are completed on the same day. Do this work as one of the Contractor's first operations. Do not place new asphalt surface over repaired shoulder failures until a minimum of 14 days has elapsed after placement of the final course of asphalt base. After the 14 calendar day waiting period, and/or when the Engineer determines the repair areas have sufficiently stabilized, begin milling and/or resurfacing operations. Prior to milling and/or constructing the new asphalt surface, level and wedge any settlement of the repair areas.

The bidder must draw his or her own conclusions as to the conditions to be encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation of the materials encountered that are not in accord with the classification shown.

Accept payment at the Contract unit prices per ton for Crushed Limestone, Asphalt Base, and Leveling and Wedging as full compensation for all labor, materials, equipment, and incidentals for saw cutting pavement and excavating and disposing of all materials; furnishing and placing crushed limestone stone wrapped in geotextile fabric; furnishing and placing asphalt base up to the existing pavement boundary; leveling and wedging until the repair areas stabilize; and all other items necessary to complete the work according to these notes to the satisfaction of the Engineer. The Department will not measure pavement removal, excavation, and geotextile fabric, but shall be incidental to Crushed Limestone and Asphalt Base as applicable.

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

II. MATERIALS

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

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

B. Guardrail. Furnish guardrail system components according to Section 814 and the Standard and Sepia Drawings; except use steel posts only, no alternates. Furnish approximately 99 Extra Length Post (9 foot length, steel, 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

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not limited to, clearing and grubbing, excavation, embankment, and removal of all obstructions or any other items; regrading, reshaping, adding and compacting of suitable materials on the existing shoulders to provide proper template or foundation for the guardrail; filling voids left as the result of removing existing guardrail and guard posts with dry sand; temporary pollution and erosion control; disposal of excess, waste materials, and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the engineer.

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

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

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

- D. DGA.** Place and compact DGA along and under the guardrail as shown on the Typical Section(s) or as directed by the Engineer. 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

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is discovered that the work does require utilities to be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of guardrail operations at no additional cost to the Department.

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

IV. METHOD OF MEASUREMENT

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Site preparation.** Other than the bid items listed, the Department will not measure Site Preparation for separate payment but shall be incidental to the Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections, as applicable.
- C. Guardrail, Extra Length Post, End Treatments, Bridge End Connectors, Terminal Sections, and Remove Guardrail.** The Department will measure according to Section 719.04.
- D. 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.

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V. BASIS OF PAYMENT

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Guardrail, Extra Length Post, End Treatments, Bridge End Connectors, Terminal Sections, and Remove Guardrail.** The Department will make payment according to Section 719.05.
- C. 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

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 and Sepia 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

Do NOT erect lane closures or partial lane closures during the following days and/or hours:

Normal Workday Rush Hours

Monday-Friday 7:00 am – 9:00 am, and 3:00 pm – 6:00 pm, daily

Holidays & Special Events

Memorial Day Weekend	3 pm Friday, May 27, 2022 – 8 pm Monday, May 30, 2022
Independence Day	3 pm Friday, July 1, 2022 – 11 pm Monday, July 4, 2022
Labor Day Weekend	3 pm Friday, September 2, 2022 – 8 pm Monday, September 5, 2022
Thanksgiving Holiday	3 pm Wednesday, November 23, 2022 – 8 pm Sunday, Nov. 27, 2022
Christmas Holiday	3 pm Friday, December 23, 2022 – 8 pm Sunday, December 25, 2022
New Year’s Day Holiday	7 am Saturday, December 31, 2022 – 8 pm Sunday, January 1, 2023
Easter Weekend	3 pm Friday, April 7, 2023 – 8 pm Sunday, April 9, 2023
Memorial Day Weekend	3 pm Friday, May 26, 2023 – 8 pm Monday, May 29, 2023
Independence Day	7 am Saturday, July 1, 2023 – 11 pm Tuesday, July 4, 2023
Labor Day Weekend	3 pm Friday, September 1, 2023 – 8 pm Monday, September 4, 2023

The Engineer may specify additional days and/or hours when lane closures or partial lane closures will not be allowed due to unforeseen events.

US 68 may be closed to through traffic between 9 a.m. and 3 p.m. for culvert replacement(s). The contractor shall submit proposed days of road closures to the Engineer at least 7 calendar days in advance for approval. Liquidated Damages in the amount of \$1,000 per hour will be assessed for each hour or fraction of an hour that US 68 remains closed after 3 p.m. on an approved daily road closure day.

With the prior approval of the Engineer, and after placing signs and/or message boards to notify the public 14 days in advance of the extended road closure, US 68 may be closed for no more than one

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extended time period of four weeks (28 Calendar days) from Brooklyn Road (Mile Point 0.1) to Pekin Pike (Mile Point 1.5) for the purpose of performing and completing all Rock Removal within these limits. The extended road closure shall not last longer than it takes to complete the Rock Removal. During this closure, the contractor shall maintain local access to all existing entrances in this area. Damages in the amount of \$2,400 per day will be assessed for each day or fraction of a day that US 68 remains closed after the 28TH day of the approved four-week road closure. The extended road closure shall not take place while local schools are in session to avoid undue detour traffic on KY 29. The extended road closure shall also not take place on holiday weekends.

All other work must be completed at all times, maintaining alternating one way traffic during construction operations. The clear lane width shall be 11 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.

The Department will provide public notification regarding approved road 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; and variable message signs.

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

MAINTAIN & CONTROL TRAFFIC.

Will be measured only once for payment.

LANE CLOSURES

Other than the allowed 4 week road closure, do not leave lane closures in place during nonworking hours. Do not leave lane closures in place during prohibited periods, holidays, and special events. No long term lane closures will be allowed; therefore, contrary to Section 112, lane closures will not be measured for payment. For information on Lane Closure setup, please refer to the Sepia Drawing 017, "Lane Closure Two-Lane Highway".

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.

Traffic Control Plan
Page 3 of 9

TEMPORARY SIGNS

Temporary sign posts and splices shall be compliant with NCHRP 350 or MASH. Manufacturer's documentation validating this compliance shall be provided to the Engineer prior to installation. Temporary signs, including any splices, shall be installed according to manufacturer's specifications and installation recommendations. Contrary to section 112.04.02, only long-term temporary signs (temporary signs intended to be continuously in place for more than 3 days) will be measured for payment. Short-term temporary signs (temporary 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.

CHANGEABLE MESSAGE SIGNS

Provide changeable message signs at locations determined by the Engineer. The Engineer may vary the designated locations as the work progresses. The Engineer will determine the messages to be displayed. In the event of damage or mechanical/electrical failure, repair or replace the Changeable Message Sign within 24 hours. The Department will measure for payment the maximum number of Changeable Message Signs in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Changeable Message Signs only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure for payment any replacements for damaged Changeable Message Signs or any changeable message signs the Engineer directs to be replaced due to poor condition or readability. Retain possession of the Changeable Message Signs upon completion of the work.

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

Do not allow a pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation with an elevation difference greater than 1½". Place Warning signs (MUTCD W8-11 or W8-9A) in advance of and at 1500' intervals throughout the drop-off area. Dual post the signs on both sides of the traveled way. Wedge all transverse transitions between resurfaced and unresurfaced areas which traffic may cross with asphalt mixture for leveling and wedging. Remove the wedges prior to placement of the final surface course.

Traffic Control Plan
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Protect pavement edges that traffic is not expected to cross, except accidentally, as follows:

Less than 2" - No protection required.

2" to 4" - Place plastic drums, vertical panels, or barricades every 50 feet. During daylight working hours only, the Engineer will allow the Contractor to use cones in lieu of plastic drums, panels, and barricades. Wedge the drop-off with DGA or 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.

Greater than 4" - Protect drop-offs greater than 4 inches within 10 feet of traffic by placing drums, vertical panels, or barricades every 25 feet. The Engineer will not allow the use of cones in lieu of drums, vertical panels, or barricades for drop-offs greater than 4". Place Type III Barricades directly in front of the drop-off facing on coming traffic in both directions of travel. Provide warning signs as shown on the Standard Drawings or as directed by the Engineer

Pedestrians & Bicycles - Protect pedestrian and bicycle traffic as directed by the Engineer.

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.

Traffic Control Plan
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USE AND PLACEMENT OF CHANGEABLE MESSAGE SIGNS

The following policy is based upon current Changeable Message Signs (CMS) standards and practice from many sources, including the Federal Highway Administration (FHWA), other State Departments of Transportation, and Traffic Safety Associations. It is understood that each CMS installation or use requires individual consideration due to the specific location or purpose. However, there will be elements that are constant in nearly all applications. Accordingly these recommended guidelines bring a level of uniformity, while still being open to regional experience and engineering judgment.

Application

The primary purpose of CMS is to advise the driver of unexpected traffic and routing situations. Examples of applications where CMS can be effective include:

- Closures (road, lane, bridge, ramp, shoulder, interstate)
- Changes in alignment or surface conditions
- Significant delays, congestion
- Construction/maintenance activities (delays, future activities)
- Detours/alternative routes
- Special events with traffic and safety implications
- Crash/incidents
- Vehicle restrictions (width, height, weight, flammable)
- Advance notice of new traffic control devices
- Real-time traffic conditions (must be kept up to date)
- Weather /driving conditions, environmental conditions, Roadway Weather Information Systems
- Emergency Situations
- Referral to Highway Advisory Radio (if available)
- Messages as approved by the County Engineer's Office

CMS should not be used for:

- Replacement of static signs (e.g. road work ahead), regulatory signage (e.g. speed limits), pavement markings, standard traffic control devices, conventional warning or guide signs.
- Replacement of lighted arrow board
- Advertising (Don't advertise the event unless clarifying "action" to be taken by driver – e.g. Speedway traffic next exit)
- Generic messages
- Test messages (portable signs only)
- Describe recurrent congestion (e.g. rush hour)
- Public service announcements (not traffic related)

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Messages

Basic principles that are important to providing proper messages and insuring the proper operation of a CMS are:

- Visible for at least ½ mile under ideal daytime and nighttime conditions
- Legible from all lanes a minimum of 650 feet
- Entire message readable twice while traveling at the posted speed
- No more than two message panels should be used (three panels may be used on roadways where vehicles are traveling less than 45 mph). A panel is the message that fits on the face of the sign without flipping or scrolling.
- Each panel should convey a single thought; short and concise
- Do not use two unrelated panels on a sign
- Do not use the sign for two unrelated messages
- Should not scroll text horizontally or vertically
- Should not contain both the words left and right
- Use standardized abbreviations and messages
- Should be accurate and timely
- Avoid filler/unnecessary words and periods (hazardous, a, an, the)
- Avoid use of speed limits
- Use words (not numbers) for dates

Placement

Placement of the CMS is important to insure that the sign is visible to the driver and provides ample time to take any necessary action. Some of the following principles may only be applicable to controlled access roadways. The basic principles of placement for a CMS are:

- When 2 signs are needed, place on same side of roadway and at least 1,000 feet apart
- Place behind semi-rigid/rigid protection (guardrail, barrier) or outside of the clear zone
- Place 1,000 feet in advance of work zone; at least one mile ahead of decision point
- Normally place on right side of roadway; but should be placed closest to the affected lane so that either side is acceptable
- Signs should not be dual mounted (one on each side of roadway facing same direction)
- Point trailer hitch downstream
- Secure to immovable object to prevent theft (if necessary)
- Do not place in sags or just beyond crest
- Check for reflection of sun to prevent the blinding of motorist
- Should be turned ~3 degrees outward from perpendicular to the edge of pavement
- Bottom of sign should be 7 feet above the elevation of edge of roadway
- Should be removed when not in use

Traffic Control Plan
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Standard Abbreviations

The following is a list of standard abbreviations to be used on CMS:

<u>Word</u>	<u>Abbrev</u>	<u>Example</u>
Access	ACCS	ACCIDENT AHEAD/ USE ACCS RD NEXT RIGHT
Alternate	ALT	ACCIDENT AHEAD/ USE ALT RTE NEXT RIGHT
Avenue	AVE	FIFTH AVE CLOSED/ DETOUR NEXT LEFT
Blocked	BLKD	FIFTH AVE BLKD/ MERGE LEFT
Boulevard	BLVD	MAIN BLVD CLOSED/ USE ALT RTE
Bridge	BRDG	SMITH BRDG CLOSED/ USE ALT RTE
Cardinal Directions	N, S, E, W	N I75 CLOSED/ DETOUR EXIT 30
Center	CNTR	CNTR LANE CLOSED/ MERGE LEFT
Commercial	COMM	OVRSZ COMM VEH/ USE I275
Condition	COND	ICY COND POSSIBLE
Congested	CONG	HVY CONG NEXT 3 MI
Construction	CONST	CONST WORK AHEAD/ EXPECT DELAYS
Downtown	DWNTN	DWNTN TRAF USE EX 40
Eastbound	E-BND	E-BND I64 CLOSED/ DETOUR EXIT 20
Emergency	EMER	EMER VEH AHEAD/ PREPARE TO STOP
Entrance, Enter	EX, EXT	DWNTN TRAF USE EX 40
Expressway	EXPWY	WTRSN EXPWY CLOSED/ DETOUR EXIT 10
Freeway	FRWY, FWY	GN SYNDR FWY CLOSED/ DETOUR EXIT 15
Hazardous Materials	HAZMAT	HAZMAT IN ROADWAY/ ALL TRAF EXIT 25
Highway	HWY	ACCIDENT ON AA HWY/ EXPECT DELAYS
Hour	HR	ACCIDENT ON AA HWY/ 2 HR DELAY
Information	INFO	TRAF INFO TUNE TO 1240 AM
Interstate	I	E-BND I64 CLOSED/ DETOUR EXIT 20
Lane	LN	LN CLOSED MERGE LEFT
Left	LFT	LANE CLOSED MERGE LFT
Local	LOC	LOC TRAF USE ALT RTE
Maintenance	MAINT	MAINT WRK ON BRDG/ SLOW
Major	MAJ	MAJ DELAYS I75/ USE ALT RTE
Mile	MI	ACCIDENT 3 MI AHEAD/ USE ALT RTE
Minor	MNR	ACCIDENT 3 MI MNR DELAY
Minutes	MIN	ACCIDENT 3 MI/ 30 MIN DELAY
Northbound	N-BND	N-BND I75 CLOSED/ DETOUR EXIT 50
Oversized	OVRSZ	OVRSZ COMM VEH/ USE I275 NEXT RIGHT
Parking	PKING	EVENT PKING NEXT RGT
Parkway	PKWY	CUM PKWAY TRAF/ DETOUR EXIT 60
Prepare	PREP	ACCIDENT 3 MI/ PREP TO STOP
Right	RGT	EVENT PKING NEXT RGT
Road	RD	HAZMAT IN RD/ ALL TRAF EXIT 25
Roadwork	RDWK	RDWK NEXT 4 MI/ POSSIBLE DELAYS
Route	RTE	MAJ DELAYS I75/ USE ALT RTE
Shoulder	SHLDR	SHLDR CLOSED NEXT 5 MI
Slippery	SLIP	SLIP COND POSSIBLE/ SLOW SPD
Southbound	S-BND	S-BND I75 CLOSED/ DETOUR EXIT 50
Speed	SPD	SLIP COND POSSIBLE/ SLOW SPD

Standard Abbreviations (cont)

Traffic Control Plan
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<u>Word</u>	<u>Abbrev</u>	<u>Example</u>
Street	ST	MAIN ST CLOSED/ USE ALT RTE
Traffic	TRAF	CUM PKWAY TRAF/ DETOUR EXIT 60
Vehicle	VEH	OVRSZ COMM VEH/ USE I275 NEXT RIGHT
Westbound	W-BND	W-BND I64 CLOSED/ DETOUR EXIT 50
Work	WRK	CONST WRK 2MI/ POSSIBLE DELAYS

Certain abbreviations are prone to inviting confusion because another word is abbreviated or could be abbreviated in the same way. DO NO USE THESE ABBREVIATIONS:

<u>Abbrev</u>	<u>Intended Word</u>	<u>Word Erroneously Given</u>
ACC	Accident	Access (Road)
CLRS	Clears	Colors
DLY	Delay	Daily
FDR	Feeder	Federal
L	Left	Lane (merge)
LOC	Local	Location
LT	Light (traffic)	Left
PARK	Parking	Park
POLL	Pollution (index)	Poll
RED	Reduce	Red
STAD	Stadium	Standard
TEMP	Temporary	Temperature
WRNG	Warning	Wrong

Typical Messages

The following is a list of typical messages used on CMS. The list consists of the reason or problem that you want the driver to be aware of and the action that you want the driver to take.

<u>Reason/Problem</u>	<u>Action</u>
ACCIDENT	ALL TRAFFIC EXIT RT
ACCIDENT/XX MILES	AVOID DELAY USE XX
XX ROAD CLOSED	CONSIDER ALT ROUTE
XX EXIT CLOSED	DETOUR
BRIDGE CLOSED	DETOUR XX MILES
BRIDGE/(SLIPPERY, ICE, ETC.)	DO NOT PASS
CENTER/LANE/CLOSED	EXPECT DELAYS
DELAY(S), MAJOR/DELAYS	FOLLOW ALT ROUTE
DEBRIS AHEAD	KEEP LEFT
DENSE FOG	KEEP RIGHT
DISABLED/VEHICLE	MERGE XX MILES
EMER/VEHICLES/ONLY	MERGE LEFT
EVENT PARKING	MERGE RIGHT
EXIT XX CLOSED	ONE-WAY TRAFFIC
FLAGGER XX MILES	PASS TO LEFT
FOG XX MILES	PASS TO RIGHT

Typical Messages (cont)

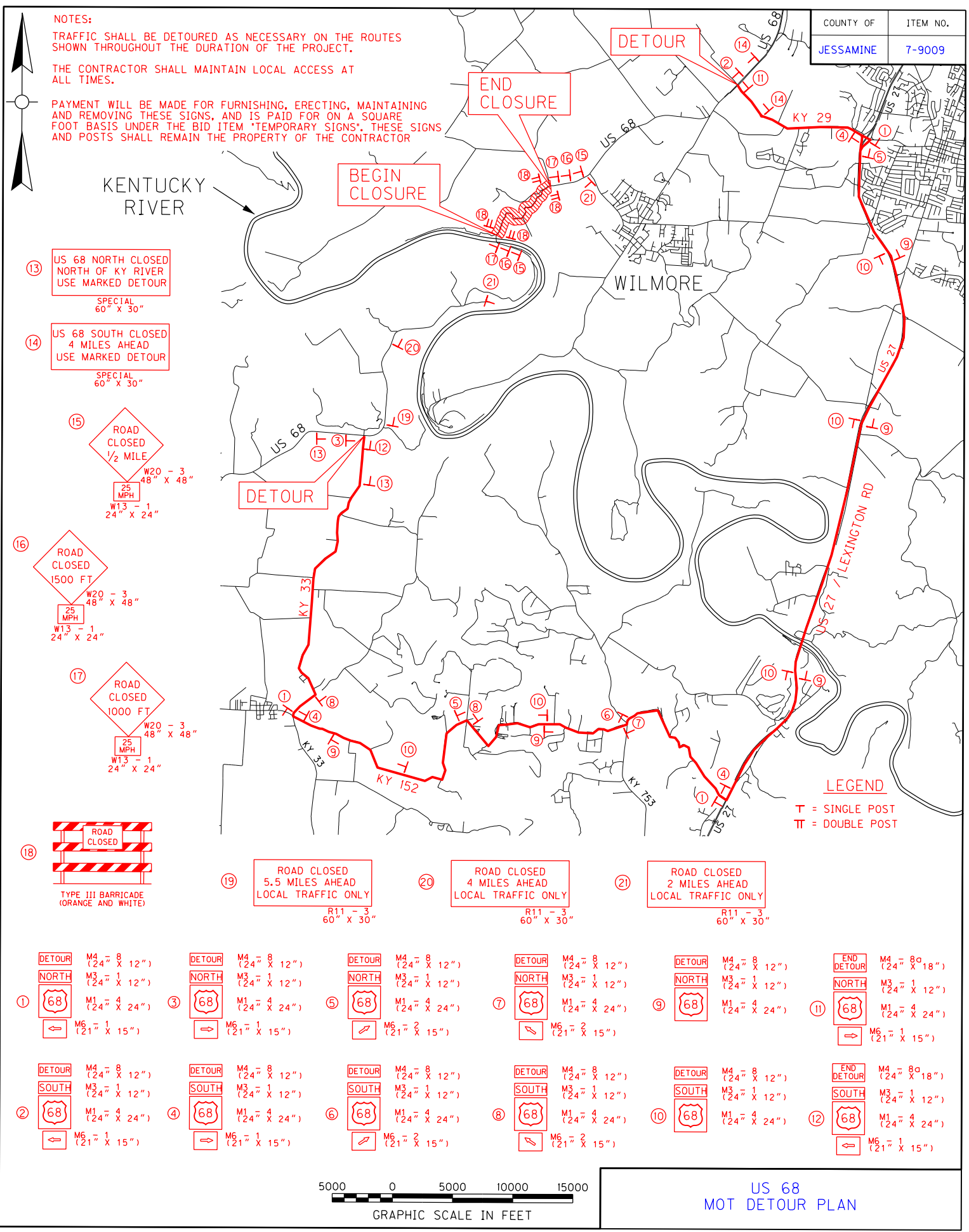
<u>Reason/Problem</u>	<u>Action</u>
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Traffic Control Plan
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FREEWAY CLOSED	PREPARE TO STOP
FRESH OIL	REDUCE SPEED
HAZMAT SPILL	SLOW
ICE	SLOW DOWN
INCIDENT AHEAD	STAY IN LANE
LANES (NARROW, SHIFT, MERGE, ETC.)	STOP AHEAD
LEFT LANE CLOSED	STOP XX MILES
LEFT LANE NARROWS	TUNE RADIO 1610 AM
LEFT 2 LANES CLOSED	USE NN ROAD
LEFT SHOULDER CLOSED	USE CENTER LANE
LOOSE GRAVEL	USE DETOUR ROUTE
MEDIAN WORK XX MILES	USE LEFT TURN LANE
MOVING WORK ZONE, WORKERS IN ROADWAY	USE NEXT EXIT
NEXT EXIT CLOSED	USE RIGHT LANE
NO OVERSIZED LOADS	WATCH FOR FLAGGER
NO PASSING	
NO SHOULDER	
ONE LANE BRIDGE	
PEOPLE CROSSING	
RAMP CLOSED	
RAMP (SLIPPERY, ICE, ETC.)	
RIGHT LANE CLOSED	
RIGHT LANE NARROWS	
RIGHT SHOULDER CLOSED	
ROAD CLOSED	
ROAD CLOSED XX MILES	
ROAD (SLIPPERY, ICE, ETC.)	
ROAD WORK	
ROAD WORK (OR CONSTRUCTION) (TONIGHT, TODAY, TOMORROW, DATE)	
ROAD WORK XX MILES	
SHOULDER (SLIPPERY, ICE, SOFT, BLOCKED, ETC.)	
NEW SIGNAL XX MILES	
SLOW 1 (OR 2) - WAY TRAFFIC	
SOFT SHOULDER	
STALLED VEHICLES AHEAD	
TRAFFIC BACKUP	
TRAFFIC SLOWS	
TRUCK CROSSING	
TRUCKS ENTERING	
TOW TRUCK AHEAD	
UNEVEN LANES	
WATER ON ROAD	
WET PAINT	
WORK ZONE XX MILES	
WORKERS AHEAD	

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

NOTES:
 TRAFFIC SHALL BE DETOURED AS NECESSARY ON THE ROUTES SHOWN THROUGHOUT THE DURATION OF THE PROJECT.
 THE CONTRACTOR SHALL MAINTAIN LOCAL ACCESS AT ALL TIMES.
 PAYMENT WILL BE MADE FOR FURNISHING, ERECTING, MAINTAINING AND REMOVING THESE SIGNS, AND IS PAID FOR ON A SQUARE FOOT BASIS UNDER THE BID ITEM "TEMPORARY SIGNS". THESE SIGNS AND POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR



13 US 68 NORTH CLOSED NORTH OF KY RIVER USE MARKED DETOUR
SPECIAL 60" X 30"

14 US 68 SOUTH CLOSED 4 MILES AHEAD USE MARKED DETOUR
SPECIAL 60" X 30"

15 ROAD CLOSED 1/2 MILE
25 MPH
W20 - 3 48" X 48"
W13 - 1 24" X 24"

16 ROAD CLOSED 1500 FT
25 MPH
W20 - 3 48" X 48"
W13 - 1 24" X 24"

17 ROAD CLOSED 1000 FT
25 MPH
W20 - 3 48" X 48"
W13 - 1 24" X 24"

18 ROAD CLOSED
TYPE III BARRICADE (ORANGE AND WHITE)

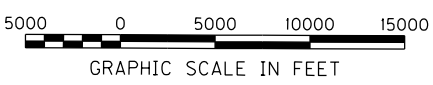
19 ROAD CLOSED 5.5 MILES AHEAD LOCAL TRAFFIC ONLY
R11 - 3 60" X 30"

20 ROAD CLOSED 4 MILES AHEAD LOCAL TRAFFIC ONLY
R11 - 3 60" X 30"

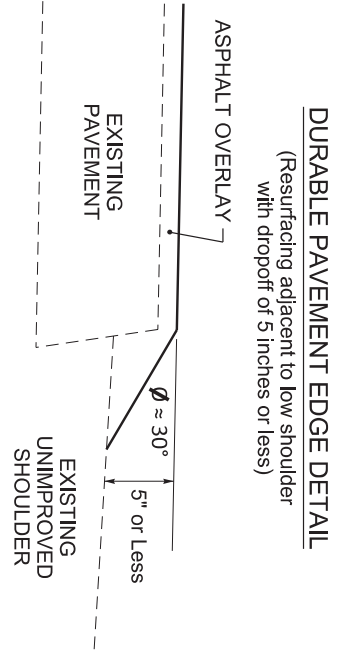
21 ROAD CLOSED 2 MILES AHEAD LOCAL TRAFFIC ONLY
R11 - 3 60" X 30"

LEGEND
 T = SINGLE POST
 TT = DOUBLE POST

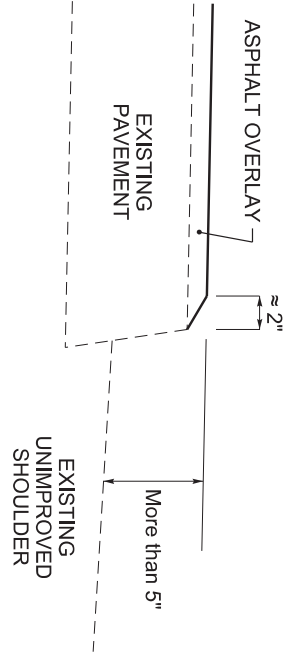
1	DETOUR NORTH 68	3	DETOUR NORTH 68	5	DETOUR NORTH 68	7	DETOUR NORTH 68	9	DETOUR NORTH 68	11	END DETOUR NORTH 68
2	DETOUR SOUTH 68	4	DETOUR SOUTH 68	6	DETOUR SOUTH 68	8	DETOUR SOUTH 68	10	DETOUR SOUTH 68	12	END DETOUR SOUTH 68



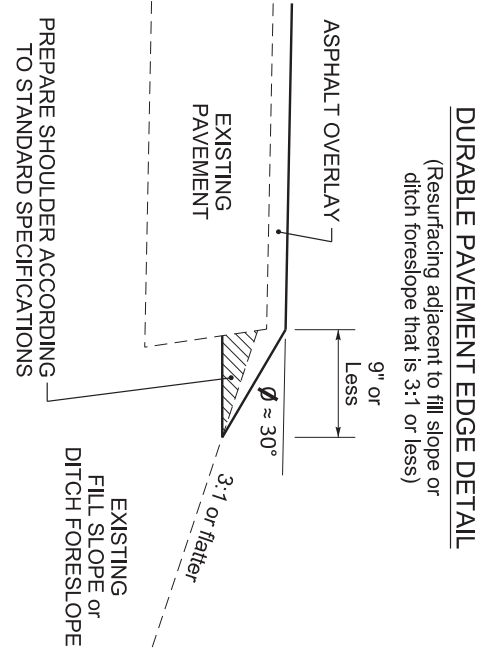
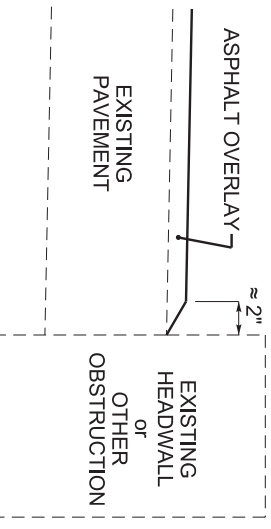
US 68
MOT DETOUR PLAN



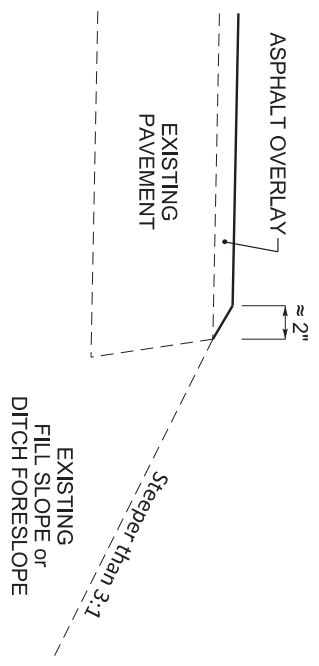
DURABLE PAVEMENT EDGE DETAIL
(Resurfacing adjacent to low shoulder with dropoff of more than 5 inches)



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 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 APPROVED BY THE ENGINEER.

DRAWING NOT TO SCALE

DURABLE PAVEMENT EDGE DETAILS



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

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

RIGHT OF WAY CERTIFICATION

<input checked="" type="checkbox"/>	Original	<input type="checkbox"/>	Re-Certification	RIGHT OF WAY CERTIFICATION		
ITEM #		COUNTY		PROJECT # (STATE)		PROJECT # (FEDERAL)
7-9009.00		Jessamine		FD52 057 0068 000-005		HSIP 2681 (034)
PROJECT DESCRIPTION						
Perform low cost safety improvements on US 68 from Milepoint 0.00 to Milepoint 4.807 in Jessamine County						
<input checked="" type="checkbox"/>	No Additional Right of Way Required					
Construction will be within the limits of the existing right of way. The right of way was acquired in accordance to FHWA regulations under the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. No additional right of way or relocation assistance were required for this project.						
<input type="checkbox"/>	Condition # 1 (Additional Right of Way Required and Cleared)					
All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.						
<input type="checkbox"/>	Condition # 2 (Additional Right of Way Required with Exception)					
The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract						
<input type="checkbox"/>	Condition # 3 (Additional Right of Way Required with Exception)					
The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. All remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary right of way will not be fully acquired, and/or some occupants will not be relocated, and/or the just compensation will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction.						
Total Number of Parcels on Project		0	EXCEPTION (S) Parcel #		ANTICIPATED DATE OF POSSESSION WITH EXPLANATION	
Number of Parcels That Have Been Acquired						
Signed Deed		0				
Condemnation		0				
Signed ROE		0				
Notes/ Comments (Use Additional Sheet if necessary)						
LPA RW Project Manager				Right of Way Supervisor		
Printed Name				Printed Name		Cecil Smith
Signature				Signature		 Cecil Smith 2021.12.06 09:15:51 -05'00'
Date				Date		12/6/2021
Right of Way Director				FHWA		
Printed Name				Printed Name		
Signature		 2021.12.09		Signature		
Date		09:29:52 -05'00'		Date		
No Signature Required as per FHWA-KYTC Current Stewardship Agreement						

UTILITIES AND RAIL CERTIFICATION NOTE

Jessamine County - HSIP 2681 (034)
FD52 057 0068 000-005
Safety Improvements Along US 68
Item No. 7-9009.00

GENERAL PROJECT NOTE ON UTILITY PROTECTION

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

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

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.

Utility coordination efforts determined that no significant utility relocation work is required to complete the project. Any work pertaining to these utility facilities is defined in the bid package and is to be carried out as instructed by the Kentucky Transportation Cabinet. The contractor will be responsible for any coordination or adjustments that are discussed or quantified in the proposal.

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

List all applicable utilities whose facilities are present and are not to be disturbed during construction activities. List Utility Type, Utility Size, Utility Location for each.

- Waterlines left and right of US 68 along corridor
- Utility poles and overhead utility lines left and right of US 68 along corridor
- Gas lines left and right of US 68 at approximate Sta. 113+00 – 119+00
- Underground telecommunications lines left of US 68 from approximate Sta. 113+00 – 121+00

UTILITIES AND RAIL CERTIFICATION NOTE

Jessamine County - HSIP 2681 (034)
FD52 057 0068 000-005
Safety Improvements Along US 68
Item No. 7-9009.00

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

N/A

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

N/A

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

N/A

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)

UTILITIES AND RAIL CERTIFICATION NOTE

Jessamine County - HSIP 2681 (034)
FD52 057 0068 000-005
Safety Improvements Along US 68
Item No. 7-9009.00

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.

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.

UTILITIES AND RAIL CERTIFICATION NOTE

Jessamine County - HSIP 2681 (034)
FD52 057 0068 000-005
Safety Improvements Along US 68
Item No. 7-9009.00

AREA UTILITIES CONTACT LIST

<u>Utility Company/Agency</u>	<u>Contact Name</u>	<u>Contact Information</u>
1. Spectrum	Kelly Oram	(859) 519-3434 john.oram@charter.com
2. Jessamine South Elkhorn Water District	Richard Decker	(859) 881-0589 Jessamine.South@JSEWD.com
3. Delta Gas	Brian Sidwell	(859) 885-4141
4. Bluegrass Energy	Tony Smith	(859) 885-2134 tonys@bgenenergy.com
5. Kentucky Utilities	Caroline Justice	(502) 627-3708 caroline.justice@lge-ku.com
6. Windstream Communications	Steve Johnson	(859) 357-6209 Steve.Johnson@windstream.com

NOTE: The Utilities Contact List is provided as informational only, and may not be a complete list of all Utility Companies with facilities in the project area.

KYTC BMP Plan for Project CID 22-4401



Kentucky Transportation Cabinet

Highway District 7

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 US 68 in
Jessamine County**

Project: CID 22-4401

KYTC BMP Plan for Project CID 22-4401

Project information

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

1. Owner – Kentucky Transportation Cabinet, District 7
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): US 68
6. Latitude/Longitude (project mid-point): 37° 52' 31.86", -84° 40' 29.27"
7. County (project mid-point): Jessamine
8. Project start date (date work will begin): (2)
9. Projected completion date: (2)

KYTC BMP Plan for Project CID 22-4401

A. Site description:

1. Nature of Construction Activity (from letting project description): Safety improvements to US 68 from MP 0.000 to MP 4.807 in Jessamine County.
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): 29.1
5. Estimate of area to be disturbed (acres): 24.4
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: Kentucky River, Indian Creek, East Fork Clear Creek Tributary 2, East Fork Clear Creek Tributary 2.1
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

KYTC BMP Plan for Project CID 22-4401

and operating construction equipment, concrete washout water, sanitary wastes and trash/debris. (3)

B. Sediment and Erosion Control Measures:

1. Plans for highway construction projects will include erosion control sheets that depict Disturbed Drainage Areas (DDAs) and related information. These plan sheets will show the existing project conditions with areas delineated by DDA within the right of way limits, the discharge points and the areas that drain to each discharge point. Project managers and designers will analyze the DDAs and identify Best Management Practices (BMPs) that are site specific. The balance of the BMPs for the project will be listed in the bid documents for selection and use by the contractor on the project with approval by the resident engineer.

Projects that do not have DDAs annotated on the erosion control sheets will employ the same concepts for development and managing BMP plans.

2. Following award of the contract, the contractor and resident engineer will annotate the erosion control sheets showing location and type of BMPs for each of the DDAs that will be disturbed at the outset of the project. This annotation will be accompanied by an order of work that reflects the order or sequence of major soil moving activities. The remaining DDAs are to be designated as "Do Not Disturb" until the contractor and resident engineer prepare the plan for BMPs to be employed. The initial BMP's shall be for the first phase (generally Clearing and Grubbing) and shall be modified as needed as the project changes phases. The BMP Plan will be modified to reflect disturbance in additional DDA's as the work progresses. All DDA's will have adequate BMP's in place before being disturbed.
3. As DDAs are prepared for construction, the following will be addressed for the project as a whole or for each DDA as appropriate:
 - Construction Access – This is the first land-disturbing activity. As soon as construction begins, bare areas will be stabilized with gravel and temporary mulch and/or vegetation.
 - At the beginning of the project, all DDAs for the project will be inspected for areas that are a source of storm water pollutants. 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

KYTC BMP Plan for Project CID 22-4401

(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:

KYTC BMP Plan for Project CID 22-4401

- 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: (1) **Typically use:** *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

KYTC BMP Plan for Project CID 22-4401

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.

KYTC BMP Plan for Project CID 22-4401

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.

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- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate state/local agency as required by KRS 224 and applicable federal law.
- The spill prevention plan will be adjusted as needed to prevent spills from reoccurring and improve spill response and cleanup.
- Spills of products will be cleaned up promptly. Wastes from spill clean up will be disposed in accordance with appropriate regulations.

D. Other State and Local Plans

This BMP plan shall include any requirements specified in sediment and erosion control plans, storm water management plans or permits that have been approved by other state or local officials. Upon submittal of the NOI, other requirements for surface water protection are incorporated by reference into and are enforceable under this permit (even if they are not specifically included in this BMP plan). This provision does not apply to master or comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit issued for the construction site by state or local officials. *There are no other local (MS4) requirements that are expected to be necessary for this project.*

E. Maintenance

1. The BMP plan shall include a clear description of the maintenance procedures necessary to keep the control measures in good and effective operating condition.
- Maintenance of BMPs during construction shall be a result of weekly and post rain event inspections with action being taken by the contractor to correct deficiencies.
 - Post Construction maintenance will be a function of normal highway maintenance operations. Following final project acceptance by the cabinet, district highway crews will be responsible for identification and correction of deficiencies regarding ground cover and cleaning of storm water BMPs. The project manager shall identify any BMPs that will be for the purpose of post construction storm water management with specific guidance for any non-routine maintenance. *There are no such BMP's for this project.*

F. Inspections

KYTC BMP Plan for Project CID 22-4401

Inspection and maintenance practices that will be used to maintain erosion and sediment controls:

- All erosion prevention and sediment control measures will be inspected at least once each week and following any rain of one-half inch or more.
- Inspections will be conducted by individuals that have successfully completed the KEPSC-RI course as required by Section 213.02.02 of the Standard Specifications for Road and Bridge Construction, current edition.
- Inspection reports will be written, signed, dated, and kept on file.
- Areas at final grade will be seeded and mulched within 14 days.
- Areas that are not at final grade where construction has ceased for a period of 21 days or longer and soil stock piles shall receive temporary mulch no later than 14 days from the last construction activity in that area.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of being reported.
- Built-up sediment will be removed from behind the silt fence before it has reached halfway up the height of the fence.
- Silt fences will be inspected for bypassing, overtopping, undercutting, depth of sediment, tears, and to ensure attachment to secure posts.
- Sediment basins will be inspected for depth of sediment, and built-up sediment will be removed when it reaches 50 percent of the design capacity and at the end of the job.
- Diversion dikes and berms will be inspected and any breaches promptly repaired. Areas that are eroding or scouring will be repaired and re-seeded / mulched as needed.
- Temporary and permanent seeding and mulching will be inspected for bare spots, washouts, and healthy growth. Bare or eroded areas will be repaired as needed.
- All material storage and equipment servicing areas that involve the management of bulk liquids, fuels, and bulk solids will be inspected weekly for conditions that represent a release or possible release of pollutants to the environment.

G. Non – Storm Water discharges

It is expected that non-storm water discharges may occur from the site during the construction period. Examples of non-storm water discharges include:

- Water from water line flushings.
- Water from cleaning concrete trucks and equipment.

KYTC BMP Plan for Project CID 22-4401

- 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

KYTC BMP Plan for Project CID 22-4401

_____ There are no activities for this project as listed in 401 KAR 5:037 Section 2 that require the preparation and implementation of a groundwater protection plan.

The contractor is responsible for the preparation of a plan that addresses the

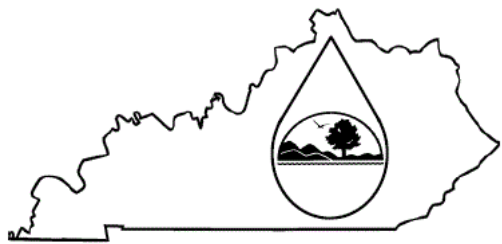
401 KAR 5:037 Section 3. (3) Elements of site specific groundwater protection plan:

- (a) General information about this project is covered in the Project information;
- (b) Activities that require a groundwater protection plan have been identified above;
- (c) Practices that will protect groundwater from pollution are addressed in section C. Other control measures.
- (d) Implementation schedule – all practices required to prevent pollution of groundwater are to be in place prior to conducting the activity;
- (e) Training is required as a part of the ground water protection plan. All employees of the contractor, sub-contractor and resident engineer personnel will be trained to understand the nature and requirements of this plan as they pertain to their job function(s). Training will be accomplished within one week of employment and annually thereafter. A record of training will be maintained by the contractor with a copy provide to the resident engineer.
- (f) Areas of the project and groundwater plan activities will be inspected as part of the weekly sediment and erosion control inspections
- (g) Certification (see signature page.)

CID 22-4401
Estill County
Highway Safety Improvement Project along US-68
from MP 0.000 – 4.807
Item No.: 7-9009.00

An electronic Notice of Intent (eNOI) for obtaining coverage under the Kentucky Pollutant Discharge Elimination System (KPDES) General Permit for Stormwater Discharges Associated with Construction Activities (KYR10) has been drafted, a copy of which is attached. Upon award, the Contractor will be identified in Section III of the form as the “Building Contractor” and the eNOI will be submitted for approval to the Kentucky Division of Water. The Contractor shall be responsible for advancing the work within this contract in a manner that is compliant with all applicable and appropriate KYTC specifications for sediment and erosion control, as well as meeting the requirements of the KYR10 permit and the KDOW.

eForm Submittal ID: 264734

	<h2 style="margin: 0;">KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES)</h2> <p style="margin: 5px 0;">Notice of Intent (NOI) for coverage of Storm Water Discharge Associated with Construction Activities Under the KPDES Storm Water General Permit KYR100000</p> <p style="margin: 10px 0;"> Click here for Instructions (Controls/KPDES_FormKYR10_Instructions.htm) </p> <p style="margin: 5px 0;"> Click here to obtain information and a copy of the KPDES General Permit. (http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf) </p> <p style="margin: 5px 0;">(*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field</p>
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Reason for Submittal:(*) <input type="text" value="Application for New Permit Coverage"/>	Agency Interest ID: <input type="text" value="Agency Interest ID"/>	Permit Number:(✓) <input type="text" value="KPDES Permit Number"/>
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If change to existing permit coverage is requested, describe the changes for which modification of coverage is being sought:(✓)

ELIGIBILITY:
 Stormwater discharges associated with construction activities disturbing individually one (1) acre or more, including, in the case of a common plan of development, contiguous construction activities that cumulatively equal one (1) acre or more of disturbance.

EXCLUSIONS:
 The following are excluded from coverage under this general permit:
 1) Are conducted at or on properties that have obtained an individual KPDES permit for the discharge of other wastewaters which requires the development and implementation of a Best Management Practices (BMP) plan;
 2) Any operation that the DOW determines an individual permit would better address the discharges from that operation;
 3) Any project that discharges to an Impaired Water listed in the most recent Integrated Report, §305(b) as impaired for sediment and for which an approved TMDL has been developed.

SECTION I -- FACILITY OPERATOR INFORMATION (PERMITTEE)

Company Name:(✓) <input type="text" value="Kentucky Transportation Cabinet, District 7"/>	First Name:(✓) <input type="text" value="Kelly"/>	M.I.: <input type="text" value="MI"/>	Last Name:(✓) <input type="text" value="Baker"/>
Mailing Address:(*) <input type="text" value="800 Newtown Court"/>	City:(*) <input type="text" value="Lexington"/>	State:(*) <input type="text" value="Kentucky"/>	Zip:(*) <input type="text" value="40511"/>
eMail Address:(*) <input type="text" value="KellyA.Baker@ky.gov"/>	Business Phone:(*) <input type="text" value="8592462354"/>	Alternate Phone: <input type="text" value="Phone"/>	

SECTION II -- GENERAL SITE LOCATION INFORMATION

Project Name:(*) <input type="text" value="KYTC Project 214401"/>	Status of Owner/Operator(*) <input type="text" value="State Government"/>	SIC Code(*) <input type="text" value="1611 Highway and Street Const"/>
Company Name:(✓) <input type="text" value="Company Name"/>	First Name:(✓) <input type="text" value="First Name"/>	M.I.: <input type="text" value="MI"/>
Site Physical Address:(*) <input type="text" value="US 68"/>		
City:(*) <input type="text" value="Wilmore"/>	State:(*) <input type="text" value="Kentucky"/>	Zip:(*) <input type="text" value="40390"/>
County:(*) <input type="text" value="Jessamine"/>	Latitude(decimal degrees)(*)DMS to DD Converter (https://www.fcc.gov/media/radio/dms-decimal) <input type="text" value="37.875516"/>	Longitude(decimal degrees)(*) <input type="text" value="-84.674798"/>

SECTION III -- SPECIFIC SITE ACTIVITY INFORMATION

Project Description:(*)

Highway Safety Improvement Program consisting of various improvements such as Pipe Replacement, Rock Removal, Superlevation Improvements, Ditching & Shoulders

a. For single projects provide the following information

Total Number of Acres in Project:(√) <input style="width:95%;" type="text" value="29.1"/>	Total Number of Acres Disturbed:(√) <input style="width:95%;" type="text" value="24.4"/>
Anticipated Start Date:(√) <input style="width:95%;" type="text"/>	Anticipated Completion Date:(√) <input style="width:95%;" type="text"/>

b. For common plans of development provide the following information

Total Number of Acres in Project:(√) <input style="width:95%;" type="text" value="# Acre(s)"/>	Total Number of Acres Disturbed:(√) <input style="width:95%;" type="text" value="# Acre(s)"/>
Number of individual lots in development, if applicable:(√) <input style="width:95%;" type="text" value="# lot(s)"/>	Number of lots in development:(√) <input style="width:95%;" type="text" value="# lot(s)"/>
Total acreage of lots intended to be developed:(√) <input style="width:95%;" type="text" value="Project Acres"/>	Number of acres intended to be disturbed at any one time:(√) <input style="width:95%;" type="text" value="Disturbed Acres"/>
Anticipated Start Date:(√) <input style="width:95%;" type="text"/>	Anticipated Completion Date:(√) <input style="width:95%;" type="text"/>

List Building Contractor(s) at the time of Application:(*)

	Company Name			
+				

SECTION IV -- IF THE PERMITTED SITE DISCHARGES TO A WATER BODY THE FOLLOWING INFORMATION IS REQUIRED

Discharge Point(s):

	Unnamed Tributary?	Latitude	Longitude	Receiving Water Name	
1	Yes	37.882850	-84.367315	Kentucky River	Delete
2	Yes	37.888107	-84.643765	Indian Creek	Delete
3	Yes	37.888408	-84.648733	Indian Creek	Delete
4	Yes	37.888687	-84.651600	Indian Creek	Delete
5	Yes	37.888573	-84.651614	Indian Creek	Delete
6	Yes	37.888075	-84.655896	Indian Creek	Delete
7	Yes	37.888170	-84.655969	Indian Creek	Delete
8	Yes	37.885859	-84.661800	Indian Creek	Delete
9	Yes	37.885934	-84.661853	Indian Creek	Delete
10	Yes	37.882750	-84.667160	Indian Creek	Delete

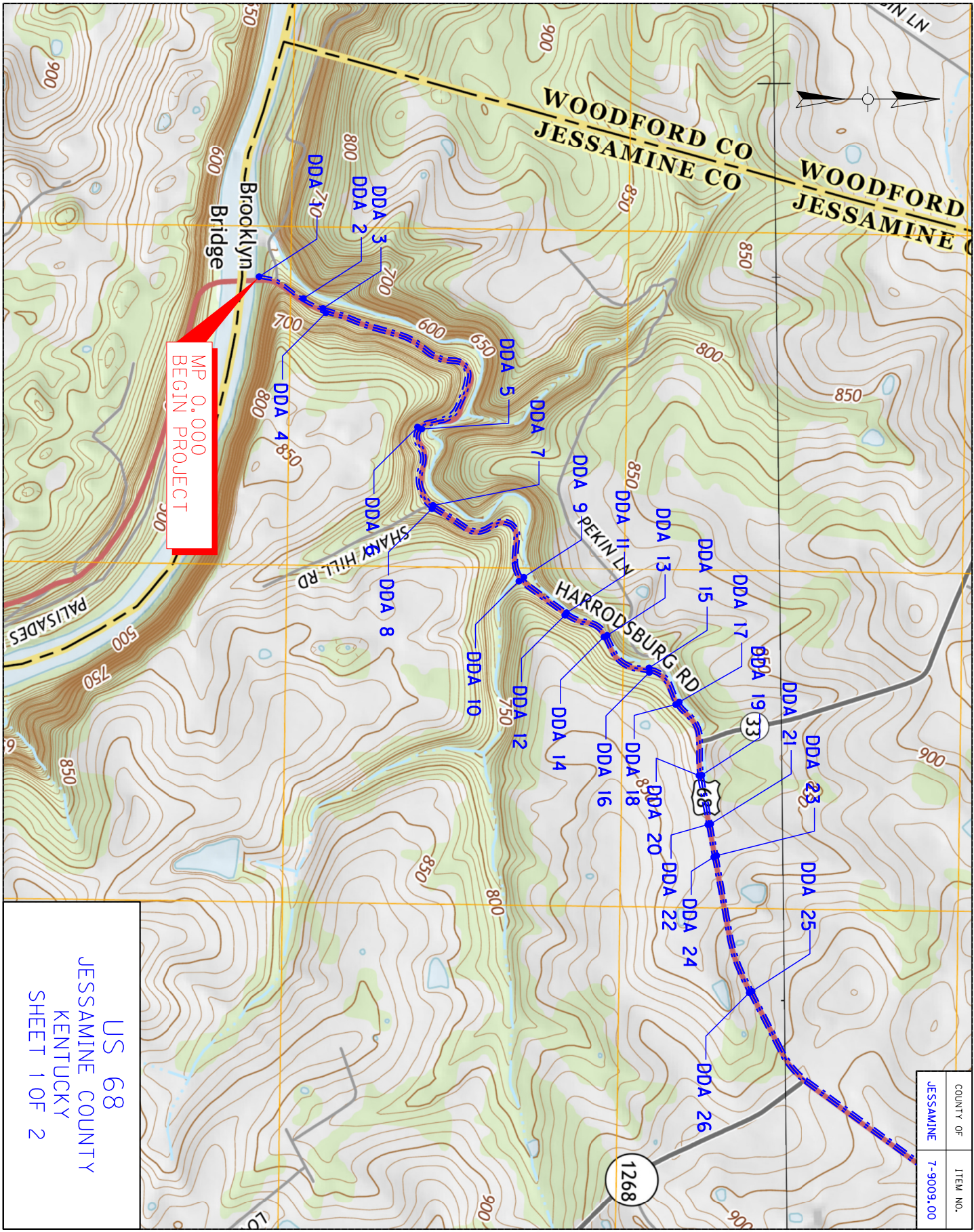
SECTION V -- IF THE PERMITTED SITE DISCHARGES TO A MS4 THE FOLLOWING INFORMATION IS REQUIRED

Name of MS4: <input style="width:95%;" type="text"/>											
Date of application/notification to the MS4 for construction site permit coverage: <input style="width:95%;" type="text" value="Date"/>	Discharge Point(s):(*) <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;"></th> <th style="width:15%;">Latitude</th> <th style="width:15%;">Longitude</th> <th style="width:10%;"></th> <th style="width:10%;"></th> </tr> </thead> <tbody> <tr> <td style="text-align:center;">+</td> <td style="height: 50px;"></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Latitude	Longitude			+				
	Latitude	Longitude									
+											

SECTION VI -- WILL THE PROJECT REQUIRE CONSTRUCTION ACTIVITIES IN A WATER BODY OR THE RIPARIAN ZONE?

Will the project require construction activities in a water body or the riparian zone?: (*)	<input style="width:95%;" type="text" value="Yes"/>
If Yes, describe scope of activity: (√)	<input style="width:95%;" type="text" value="describe scope of activity"/>
Is a Clean Water Act 404 permit required?:(*)	<input style="width:95%;" type="text" value="Yes"/>

Is a Clean Water Act 401 Water Quality Certification required?:(*)		Yes <input type="button" value="v"/>	
SECTION VII -- NOI PREPARER INFORMATION			
First Name:(*) <input type="text" value="First Name"/>	M.I.: <input type="text" value="MI"/>	Last Name:(*) <input type="text" value="Last Name"/>	Company Name:(*) <input type="text" value="Company Name"/>
Mailing Address:(*) <input type="text" value="Mailing Address"/>	City:(*) <input type="text" value="City"/>	State:(*) <input type="text" value=""/>	Zip:(*) <input type="text" value="Zip"/>
eMail Address:(*) <input type="text" value="eMail Address"/>	Business Phone:(*) <input type="text" value="Phone"/>	Alternate Phone: <input type="text" value="Phone"/>	
SECTION VIII -- ATTACHMENTS			
Facility Location Map:(*)	<input type="button" value="Upload file"/>		
Supplemental Information:	<input type="button" value="Upload file"/>		
SECTION IX -- CERTIFICATION			
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.			
Signature:(*) <input type="text" value="Signature"/>	Title:(*) <input type="text" value="Title"/>		
First Name:(*) <input type="text" value="First Name"/>	M.I.: <input type="text" value="MI"/>	Last Name:(*) <input type="text" value="Last Name"/>	
eMail Address:(*) <input type="text" value="eMail Address"/>	Business Phone:(*) <input type="text" value="Phone"/>	Alternate Phone: <input type="text" value="Phone"/>	Signature Date:(*) <input type="text" value="Date"/>
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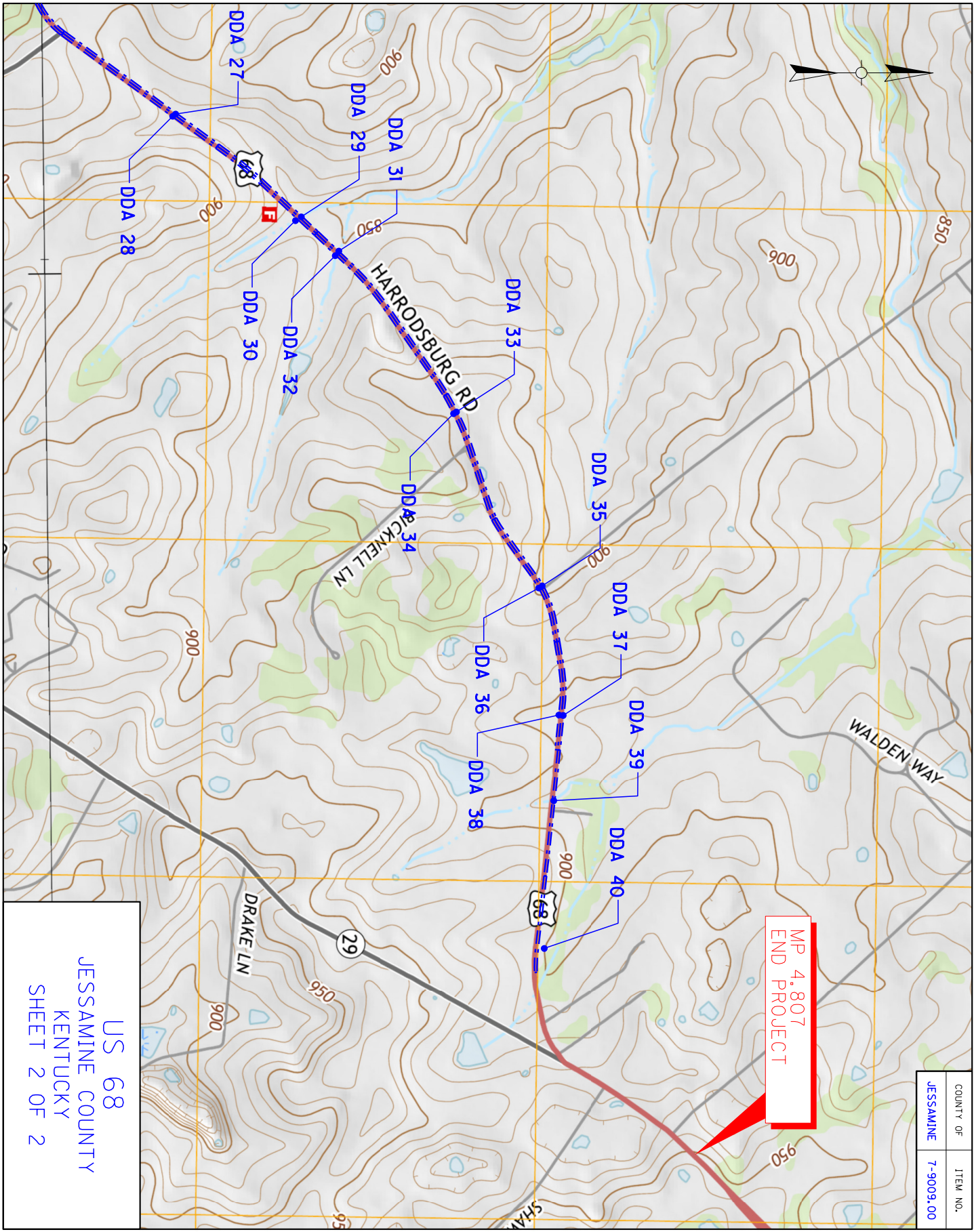


MP 0.000
BEGIN PROJECT

US 68
JESSAMINE COUNTY
KENTUCKY
SHEET 1 OF 2

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00

1268



US 68
 JESSAMINE COUNTY
 KENTUCKY
 SHEET 2 OF 2

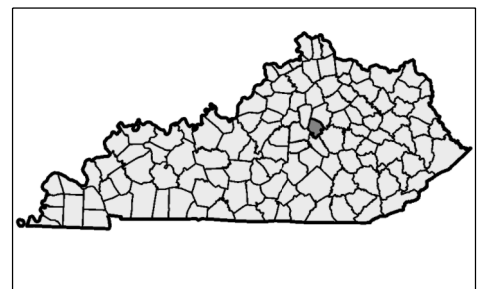
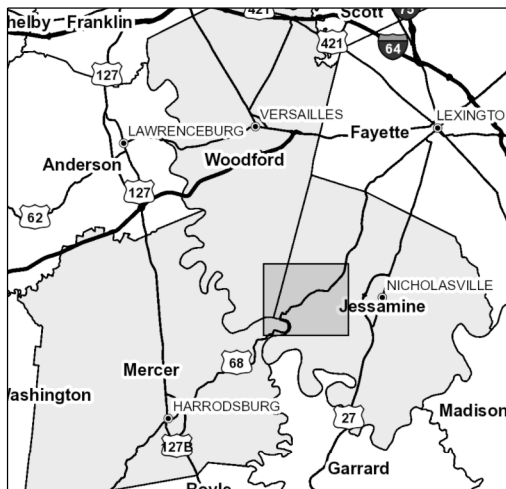
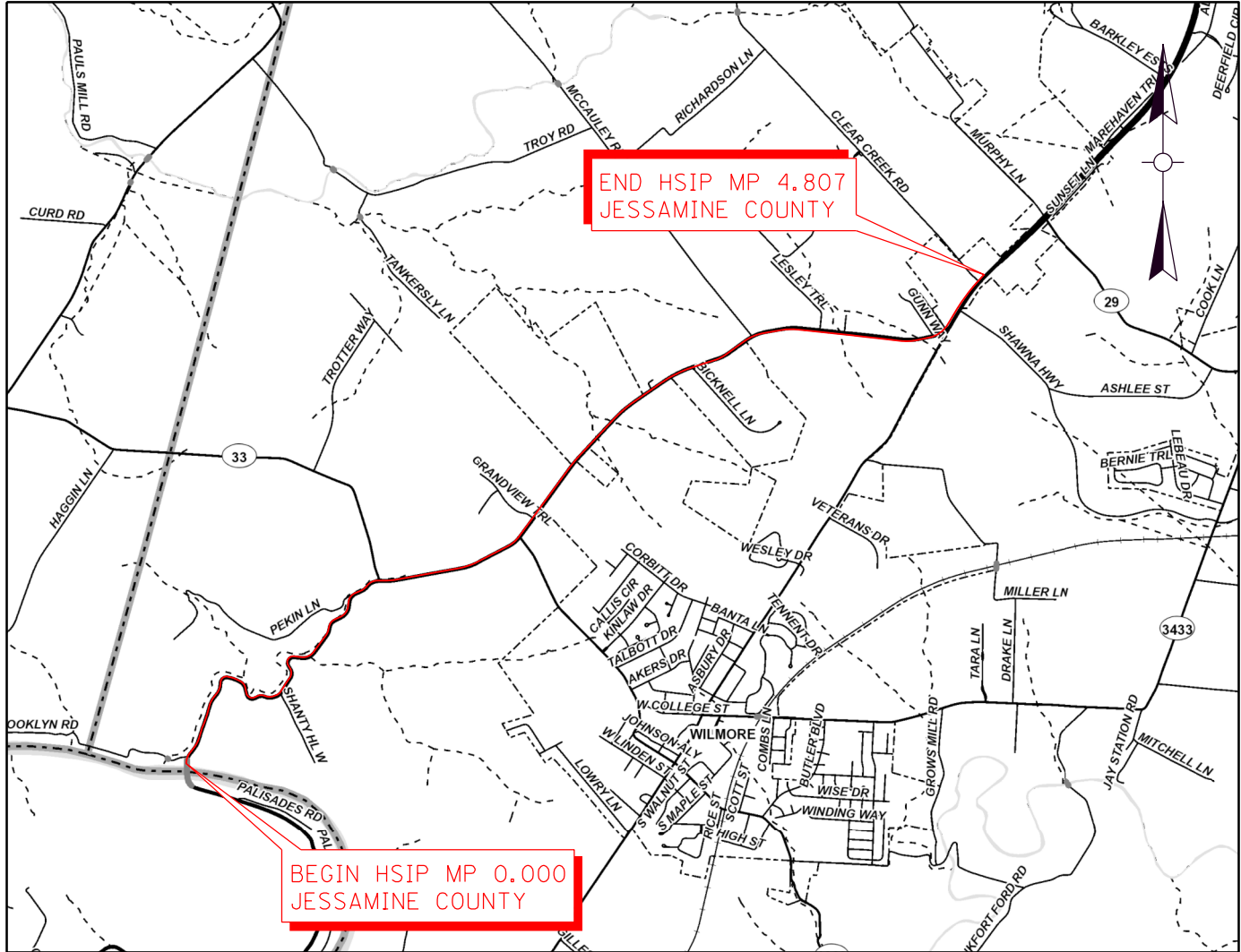
MP 4.807
 END PROJECT

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00

JESSAMINE COUNTY

US 68



US 68 - JESSAMINE COUNTY				
ITEM NO. 7-9009.00				
GENERAL SUMMARY				
ITEM	DESCRIPTION		UNIT	QUANTITY
1	DGA BASE	(4) (3) (1)	TON	638
3	CRUSHED STONE BASE	(6)	TON	69
78	CRUSHED AGGREGATE SIZE NO 2	(6)	TON	297
80	CRUSHED AGGREGATE SIZE NO 23	(9) (8)	TON	306
100	ASPHALT SEAL AGGREGATE	(3) (1)	TON	70
103	ASPHALT SEAL COAT	(3) (1)	TON	10
190	LEVELING & WEDGING PG64-22	(9) (8) (5) (2)	TON	1039
212	CL2 ASPH BASE 1.00D PG64-22	(11) (9) (8) (4) (2)	TON	440
307	CL2 ASPH SURF 0.38B PG64-22	(11) (9) (8) (5) (4) (2)	TON	1371
356	ASPHALT MATERIAL FOR TACK	(11)	TON	4
440	ENTRANCE PIPE-15 IN	(4)	LF	50
441	ENTRANCE PIPE-18 IN	(4)	LF	30
462	CULVERT PIPE-18 IN	(2)	LF	459
464	CULVERT PIPE-24 IN	(2)	LF	27
1204	PIPE CULVERT HEADWALL-18 IN	(2)	EACH	2
1208	PIPE CULVERT HEADWALL-24 IN	(2)	EACH	2
1310	REMOVE PIPE	(4) (2)	LF	136
1726	SAFETY BOX INLET-18 IN SDB-1	(2)	EACH	11
1987	DELINEATOR FOR GUARDRAIL B/W	(1)	EACH	169
2014	BARRICADE-TYPE III		EACH	4
2159	TEMP DITCH		LF	12690
2160	CLEAN TEMP DITCH		LF	6345
2360	GUARDRAIL TERMINAL SECTION NO 1	(1)	EACH	3
2367	GUARDRAIL END TREATMENT TYPE 1	(1)	EACH	8
2369	GUARDRAIL END TREATMENT TYPE 2A	(1)	EACH	2
2371	GUARDRAIL END TREATMENT TYPE 7	(1)	EACH	1
2378	GUARDRAIL CONNECTOR TO BRIDGE END TY D	(1)	EACH	1
2381	REMOVE GUARDRAIL	(1)	LF	8388
2391	GUARDRAIL END TREATMENT TYPE 4A	(1)	EACH	2
2399	EXTRA LENGTH GUARDRAIL POST	(1)	EACH	99
2483	CHANNEL LINING CLASS II	(6) (3) (2)	TON	2567
2562	TEMPORARY SIGNS		SQFT	800
2565	OBJECT MARKER TYPE 2	(7)	EACH	16
2568	MOBILIZATION		LS	1
2569	DEMOBILIZATION		LS	1
2575	DITCHING AND SHOULDERING	(3)	LF	27055
2603	FABRIC-GEOTEXTILE CLASS 2	(6) (3)	SQYD	1809
2610	RETAINING WALL-GABION	(1)	CUYD	27
2625	REMOVE HEADWALL	(4) (2)	EACH	13
2650	MAINTAIN & CONTROL TRAFFIC		LS	1

- ① QUANTITY CARRIED OVER FROM GUARDRAIL SUMMARY
- ② QUANTITY CARRIED OVER FROM CULVERT PIPE SUMMARY
- ③ QUANTITY CARRIED OVER FROM DITCHING AND SHOULDERING SUMMARY
- ④ QUANTITY CARRIED OVER FROM ENTRANCE SUMMARY
- ⑤ QUANTITY CARRIED OVER FROM SUPERELEVATION IMPROVEMENT SUMMARY
- ⑥ QUANTITY CARRIED OVER FROM CRIBBING SUMMARY
- ⑦ QUANTITY CARRIED OVER FROM SIGN SUMMARY
- ⑧ QUANTITY CARRIED OVER FROM SHOULDER REPAIR SUMMARY
- ⑨ QUANTITY CARRIED OVER FROM EDGE REPAIR SUMMARY
- ⑩ QUANTITY CARRIED OVER FROM TREE TRIMMING AND REMOVAL SUMMARY
- ⑪ QUANTITY CARRIED OVER FROM ROCK REMOVAL SUMMARY
- ⑫ ADDITIONAL QUANTITY INCLUDED FOR USE AS DIRECTED BY ENGINEER

US 68 - JESSAMINE COUNTY			
ITEM NO. 7-9009.00			
GENERAL SUMMARY			
ITEM	DESCRIPTION	UNIT	QUANTITY
2671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	2
2676	MOBILIZATION FOR MILL & TEXT	LS	1
2677	ASPHALT PAVE MILLING & TEXTURING	TON	1295
2697	EDGE LINE RUMBLE STRIPS	LF	15079
2701	TEMP SILT FENCE	LF	12690
2703	SILT TRAP TYPE A	EACH	25
2704	SILT TRAP TYPE B	EACH	25
2705	SILT TRAP TYPE C	EACH	25
2706	CLEAN SILT TRAP TYPE A	EACH	25
2707	CLEAN SILT TRAP TYPE B	EACH	25
2708	CLEAN SILT TRAP TYPE C	EACH	25
2726	STAKING	LS	1
3234	RAILROAD RAILS-DRILLED	LF	3856
3235	EXCAVATION AND BACKFILL	CUYD	87
3236	CRIBBING	SQFT	5123
3269	TRIM & REMOVE TREES & BRUSH	LF	10710
5950	EROSION CONTROL BLANKET	SQYD	14100
5952	TEMP MULCH	SQYD	78651
5953	TEMP SEEDING AND PROTECTION	SQYD	59048
5963	INITIAL FERTILIZER	TON	3
5964	MAINTENANCE FERTILIZER	TON	3
5985	SEEDING AND PROTECTION	SQYD	41954
5992	AGRICULTURAL LIMESTONE	TON	36
6406	SBM ALUM SHEET SIGNS .080 IN	SQFT	62
6407	SBM ALUM SHEET SIGNS .125 IN	SQFT	17
6410	STEEL POST TYPE 1	LF	174
6511	PAVE STRIPING-TEMP PAINT-6 IN	LF	9429
6515	PAVE STRIPING-PERM PAINT-6 IN	LF	9429
8100	CONCRETE-CLASS A	CUYD	2
20191ED	OBJECT MARKER TY 3	EACH	10
21802EN	G/R STEEL W BEAM-S FACE (7 FT POST)	LF	7919
23312EC	ROCK REMOVAL	CUYD	0
21134ND	REMOVE-STORE AND REINSTALL SIGN	EACH	30
21373ND	REMOVE SIGN	EACH	12
23229EC	HIGH FRICTION SURFACE TREATMENT	SQYD	1088
24575ES610	HEADWALL (SLOPED & MITERED CONCRETE FOR 18 INCH PIPE)	EACH	7
24575ES610	HEADWALL (SLOPED & MITERED CONCRETE FOR 24 INCH PIPE)	EACH	2
24575ES610	HEADWALL (SLOPED & MITERED CONCRETE FOR 15 INCH PIPE)	EACH	2
24631EC	BARCODE SIGN INVENTORY	EACH	40

- ① QUANTITY CARRIED OVER FROM GUARDRAIL SUMMARY
- ② QUANTITY CARRIED OVER FROM CULVERT PIPE SUMMARY
- ③ QUANTITY CARRIED OVER FROM DITCHING AND SHOULDERING SUMMARY
- ④ QUANTITY CARRIED OVER FROM ENTRANCE SUMMARY
- ⑤ QUANTITY CARRIED OVER FROM SUPERELEVATION IMPROVEMENT SUMMARY
- ⑥ QUANTITY CARRIED OVER FROM CRIBBING SUMMARY
- ⑦ QUANTITY CARRIED OVER FROM SIGN SUMMARY
- ⑧ QUANTITY CARRIED OVER FROM SHOULDER REPAIR SUMMARY
- ⑨ QUANTITY CARRIED OVER FROM EDGE REPAIR SUMMARY
- ⑩ QUANTITY CARRIED OVER FROM TREE TRIMMING AND REMOVAL SUMMARY
- ⑪ QUANTITY CARRIED OVER FROM ROCK REMOVAL SUMMARY
- ⑫ ADDITIONAL QUANTITY INCLUDED FOR USE AS DIRECTED BY ENGINEER

Guardrail Summary

Counties: Jessamine

Route: US 68

Notes: Begin/End Mileposts are estimated to include the entire length of the rail AND the end treatments. The Engineer may adjust the proposed guardrail length to ensure proper installation of the guardrail system.

Side of Road	Proposed BEGINNING Treatment	Approx. BEGIN Station	Approx. BEGIN Milepoint	Approx. END Station	Approx. END Milepoint	Proposed Guardrail to be Constructed			Remarks	Side of Road	Approx. BEGIN Station	Approx. BEGIN Milepoint	Approx. END Station	Approx. END Milepoint	Existing Length (LF)
						Proposed ENDING Treatment	Proposed Length (LF)	Number of Radius of Rail							
LT	Connector Type D	1+23	0.023	1+56	0.030	REMOVE AND REPLACE AND/OR EXTEND EXISTING GUARDRAIL WITH 7' POSTS	52.50	4		LT	1+23	0.023	1+56	0.030	37.50
LT	Type 1	1+84	0.035	7+00	0.133		482.50	2		LT	1+84	0.035	7+00	0.133	525.00
LT		7+50	0.142	10+95	0.207		350.00			LT	7+50	0.142	10+95	0.207	350.00
LT		12+03	0.228	17+52	0.332		550.00			LT	12+03	0.228	17+52	0.332	550.00
LT		19+50	0.369	19+87	0.376		37.50			LT	19+50	0.369	19+87	0.376	37.50
LT		20+85	0.395	23+90	0.453		312.50			LT	20+85	0.395	23+90	0.453	312.50
LT		26+29	0.498	31+00	0.587		475.00			LT	26+29	0.498	31+00	0.587	475.00
LT		32+50	0.616	39+00	0.739		650.00			LT	32+50	0.616	39+00	0.739	650.00
LT		39+10	0.741	42+09	0.797		300.00			LT	39+10	0.741	42+09	0.797	300.00
LT		43+09	0.816	44+97	0.852		200.00			LT	43+09	0.816	44+97	0.852	200.00
LT		46+30	0.877	48+06	0.910	Type 1	137.50			LT	46+30	0.877	48+06	0.910	187.50
LT	Terminal Section 1	48+24	0.914	61+93	1.173	Terminal Section 1	1,378.75	1		LT	48+24	0.914	61+93	1.173	1,375.00
LT	Terminal Section 1	62+17	1.177	64+54	1.222		248.75	3		LT	62+17	1.177	64+54	1.222	237.50
LT		66+55	1.260	67+57	1.280		112.50			LT	66+55	1.260	67+57	1.280	112.50
LT		67+92	1.286	70+06	1.327	Type 1	175.00			LT	67+92	1.286	70+06	1.327	225.00
LT	Type 7	70+78	1.341	76+12	1.442	Type 1	437.50			LT	70+78	1.341	76+12	1.442	537.50
LT	Type 4A	76+39	1.447	77+96	1.477		132.50	2	End of proposed string ties into existing Type 7 end treatment.	LT	76+39	1.447	77+96	1.477	162.50
LT		78+25	1.482	79+54	1.506	Type 1	98.75	3	Beginning of proposed string ties into existing Type 7 end treatment.	LT	78+25	1.482	79+54	1.506	137.50
LT	Type 1	146+76	2.780	149+00	2.822	Type 1	125.00		Includes Gabion Basket Replacement (25')	LT	146+76	2.780	149+00	2.822	225.00
RT	Type 2A	52+38	0.992	54+50	1.032	Type 2A	212.50			RT	52+38	0.992	54+50	1.032	212.50
RT	Type 4A	145+62	2.758	148+62	2.815	Type 1	212.50			RT	145+62	2.758	148+62	2.815	300.00
REMOVE AND REPLACE AND/OR EXTEND EXISTING GUARDRAIL WITH EXTRA LENGTH POSTS															
LT		7+00	0.133	7+50	0.142		50.00		4 Extra Length Posts	LT	7+00	0.133	7+50	0.142	50.00
LT		10+95	0.207	12+03	0.228		112.50		9 Extra Length Posts	LT	10+95	0.207	12+03	0.228	112.50
LT		18+82	0.356	19+50	0.369		75.00		6 Extra Length Posts	LT	18+82	0.356	19+50	0.369	75.00
LT		19+87	0.376	20+85	0.395		100.00		8 Extra Length Posts	LT	19+87	0.376	20+85	0.395	100.00
LT		23+90	0.453	26+29	0.498		250.00		20 Extra Length Posts	LT	23+90	0.453	26+29	0.498	250.00
LT		31+00	0.587	32+50	0.616		150.00		12 Extra Length Posts	LT	31+00	0.587	32+50	0.616	150.00
LT		39+00	0.739	39+10	0.741		12.50		1 Extra Length Posts	LT	39+00	0.739	39+10	0.741	12.50
LT		42+09	0.797	43+09	0.816		100.00		8 Extra Length Posts	LT	42+09	0.797	43+09	0.816	100.00
LT		44+97	0.852	46+30	0.877		137.50		11 Extra Length Posts	LT	44+97	0.852	46+30	0.877	137.50

Guardrail Summary

Counties: Jessamine

Route: US 68

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

Side of Road	Proposed BEGINNING Treatment	Approx. BEGIN Station	Approx. BEGIN Milepoint	Approx. END Station	Approx. END Milepoint	Proposed Guardrail to be Constructed		Proposed Length (LF)	Number of Radius Rail	Remarks	Side of Road	Approx. BEGIN Station	Approx. BEGIN Milepoint	Approx. END Station	Approx. END Milepoint	Existing Length (LF)
						Proposed ENDING Treatment	Proposed Length (LF)									
LT		64+54	1.222	66+55	1.260			212.50		17 Extra Length Posts	LT	64+54	1.222	66+55	1.260	212.50
LT		67+57	1.280	67+92	1.286			37.50		3 Extra Length Posts	LT	67+57	1.280	67+92	1.286	37.50
ITEM	DESCRIPTION										UNIT	QUANTITY				
00001	DGA BASE										TON	563				
00100	ASPHALT SEAL AGGREGATE										TON	61				
00103	ASPHALT SEAL COAT										TON	8				
01987	DELINTEATOR FOR GUARDRAIL B/W										EACH	169				
02360	GUARDRAIL TERMINAL SECTION NO 1										EACH	3				
02367	GUARDRAIL END TREATMENT TYPE 1										EACH	8				
02369	GUARDRAIL END TREATMENT TYPE 2A										EACH	2				
02371	GUARDRAIL END TREATMENT TYPE 7										EACH	1				
02378	GUARDRAIL CONNECTOR TO BRIDGE END TY D										EACH	1				
02381	REMOVE GUARDRAIL										LF	8388				
02391	GUARDRAIL END TREATMENT TYPE 4A										EACH	2				
02399	EXTRA LENGTH GUARDRAIL POST										EACH	99				
02610	RETAINING WALL-GABION										CY/D	27				
21802EN	G/R STEEL W BEAM-S FACE (7 FT POST)										LF	7919				
20191ED	OBJECT MARKER TY 3										EACH	10				

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field. All quantities carried over to the General Summary.

**US 68 JESSAMINE COUNTY
ITEM NO. 7-9009.00
CULVERT PIPE SUMMARY**

Mile Point	Station	Existing Culvert Pipe	Skew	Remove Pipe LT (LF)	Remove Pipe RT (LF)	Remove Headwall (ea)	Proposed Culvert Pipe		End Anchors (Class "A" Conc)	Left Headwall - Proposed	Right Headwall - Proposed
							18"	24"			
0.138	7+27	24" RCP	48°	4	-	1	-	6	0.16	24" Pipe Culvert Headwall	-
0.199	10+50	-	0°	-	-	-	43	-	0.16	-	18" Safety Box Inlet
0.275	14+50	-	0°	-	-	-	37	-	0.16	-	18" Safety Box Inlet
0.369	19+50	-	0°	-	-	-	31	-	0.16	-	18" Safety Box Inlet
0.445	23+50	-	0°	-	-	-	35	-	0.16	-	18" Safety Box Inlet
0.583	30+78	18" RCP	15°	4	-	1	6	-	0.16	18" Pipe Culvert Headwall	-
0.620	32+75	-	0°	-	-	-	44	-	0.16	-	18" Safety Box Inlet
0.740	39+07	24" RCP	12°	4	-	1	-	6	0.16	24" Pipe Culvert Headwall	-
0.782	41+30	-	0°	-	-	-	42	-	0.16	-	18" Safety Box Inlet
0.866	45+75	-	0°	-	-	-	38	-	0.16	-	18" Safety Box Inlet
0.938	49+50	-	0°	-	-	-	36	-	0.16	-	18" Safety Box Inlet
1.113	58+79	18" RCP	0°	4	-	-	6	-	0.16	18" Pipe Culvert Headwall	-
1.155	61+00	-	0°	-	-	-	38	-	0.16	-	18" Safety Box Inlet
1.264	66+76	-	0°	-	-	-	37	-	0.16	-	18" Safety Box Inlet
1.543	81+46	18" RCP	0°	4	-	1	10	-	0.16	18" Sloped & Mitered Headwall	-
1.634	86+29	18" RCP	0°	4	-	1	9	-	0.16	18" Sloped & Mitered Headwall	-
1.954	103+15	18" RCP	0°	4	4	2	11	-	0.16	18" Safety Box Inlet	18" Sloped & Mitered Headwall
3.162	166+95	18" RCP	0°	4	4	2	16	-	0.16	18" Sloped & Mitered Headwall	18" Sloped & Mitered Headwall
3.522	185+97	18" RCP	0°	4	4	-	20	-	0.16	18" Sloped & Mitered Headwall	18" Sloped & Mitered Headwall
3.765	198+77	24" RCP	0°	4	4	2	-	15	0.16	24" Sloped & Mitered Headwall	24" Sloped & Mitered Headwall

ITEM	DESCRIPTION	UNIT	QUANTITY
00190	LEVELING & WEDGING PG64-22	TON	9
00212	CL2 ASPH BASE 1.00D PG64-22	TON	49
00307	CL2 ASPH SURF 0.388 PG64-22	TON	379
00462	CULVERT PIPE-18 IN	LF	459
00464	CULVERT PIPE-24 IN	LF	27
01204	PIPE CULVERT HEADWALL-18 IN	EACH	2
01208	PIPE CULVERT HEADWALL-24 IN	EACH	2
01310	REMOVE PIPE	LF	56
01726	SAFETY BOX INLET-18 IN SDB-1	EACH	11
02483	CHANNEL LINING CLASS II	TON	600
02625	REMOVE HEADWALL	EACH	11
02677	ASPHALT PAVE MILLING & TEXTURING	TON	379
02697	EDELINE RUMBLE STRIPS	LF	3400
08100	CONCRETE-CLASS A	CUYD	2
24575E5610	HEADWALL (SLOPED & MITERED CONCRETE FOR 18 INCH PIPE)	EACH	7
24575E5610	HEADWALL (SLOPED & MITERED CONCRETE FOR 24 INCH PIPE)	EACH	2

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field. The Contractor shall field verify types and dimensions prior to ordering. All quantities carried over to the General Summary.

*For use as directed by engineer

Ditching & Shouldering Summary

County: Jessamine

Route: US 68

* The "Figure References" noted below refer to the Figure number within the Ditching & Shouldering Detail Sheet that is the closest representation of the intended Ditching & Shouldering.
 ** The Estimated Volumes of Excavation and Embankment are provided for informational purposes ONLY. The Department gives no guarantee to the accuracy of the estimated volumes. The Bidder must draw his/her own conclusion. Payment will be based on the linear footage of Ditching & Shouldering performed, regardless of the accuracy of the estimated volumes of excavation and embankment.

Side of Road	Approx. BEGIN Station	Approx. BEGIN Milepoint	Approx. END Station	Approx. END Milepoint	Length (L ^f)	Estimated Excavation Volume** (CU YD)	Estimated Embankment Volume** (CU YD)	Ditching & Shouldering Detail Sheet Figure Ref.*	Include DGA Wedge? (Yes/No)	DGA (TONS)	Asphalt Seal Coat (TON)	Asphalt Seal Aggregate (TON)	Channel Line Ditch, Fill Slope or Cut Slope? (Yes/No)	Channel Class II (TONS)	FABRIC-GEOTEXT ILE CLASS 2(SQ YD)	Remarks
LT	6+77	0.128	7+77	0.147	100	0	3	Figure 4	No				No		0	Pipe Extension
RT	7+66	0.145	8+06	0.153	40	1	0	Figure 11	No				Yes - Ditch	8	0	Clean/Reshape
LT	8+06	0.153	9+83	0.186	177	0	5	Figure 4	No				No		0	SE Improvement
RT	8+06	0.153	9+83	0.186	177	7	7	Figure 11	Yes	2	0.05	0.37	Yes - Ditch	36	15	SE Improvement
RT	9+83	0.186	13+65	0.259	382	8	3	Figure 11	Yes	4	0.10	0.80	Yes - Ditch	77	32	SE Improvement
LT	10+00	0.189	11+00	0.208	100	0	3	Figure 4	No				No		0	Proposed Cross Drain
LT	14+00	0.265	15+00	0.284	100	0	3	Figure 4	No				No		0	Proposed Cross Drain
RT	14+00	0.265	15+00	0.284	100	4	4	Figure 11	No				Yes - Ditch	20	0	Pipe Extension
RT	17+00	0.322	23+05	0.437	605	13	4	Figure 11	No				Yes - Ditch	121	0	Clean/Reshape
LT	19+00	0.360	20+00	0.379	100	0	3	Figure 4	No				No		0	Proposed Cross Drain
LT	23+00	0.436	26+01	0.493	301	0	8	Figure 4	No				No		0	Cross Drain, SE Improvement
RT	23+05	0.437	26+01	0.493	296	11	11	Figure 11	Yes	3	0.08	0.62	Yes - Ditch	60	25	SE Improvement
RT	26+01	0.493	28+00	0.530	199	4	1	Figure 11	No				Yes - Ditch	40	0	Clean/Reshape
RT	29+24	0.554	33+00	0.635	376	0	4	Figure 1	Yes	4	0.10	0.79	No		0	SE Improvement
LT	30+28	0.573	31+28	0.592	100	0	3	Figure 4	No				No		0	Pipe Extension
LT	32+25	0.611	33+25	0.630	100	0	3	Figure 4	No				No		0	Proposed Cross Drain
RT	33+00	0.625	34+36	0.651	136	3	1	Figure 11	No				Yes - Ditch	28	0	Clean/Reshape
RT	34+36	0.651	37+76	0.715	340	13	13	Figure 11	Yes	4	0.09	0.71	Yes - Ditch	68	28	SE Improvement
RT	37+76	0.715	38+25	0.724	49	1	0	Figure 11	No				Yes - Ditch	10	0	Clean/Reshape
LT	38+57	0.730	39+57	0.749	100	0	3	Figure 4	No				No		0	Pipe Extension
LT	39+25	0.743	41+80	0.792	255	6	2	Figure 11	No				Yes - Ditch	51	0	Clean/Reshape
LT	40+80	0.773	41+80	0.792	100	0	3	Figure 4	No				No		0	Proposed Cross Drain
RT	44+00	0.833	49+00	0.928	500	11	4	Figure 11	No				Yes - Ditch	100	0	Clean/Reshape
LT	45+25	0.857	46+25	0.876	100	0	3	Figure 4	No				No		0	Proposed Cross Drain
LT	49+00	0.928	50+00	0.947	100	0	3	Figure 4	No				No		0	Proposed Cross Drain
RT	49+00	0.928	51+00	0.966	200	3	9	Figure 8	Yes	2	0.05	0.42	No		12	Clean/Reshape, SE Improvement
RT	51+00	0.966	52+38	0.992	138	5	5	Figure 11	Yes	2	0.04	0.29	Yes - Ditch	28	0	SE Improvement
RT	52+38	0.992	54+74	1.037	236	0	4	Figure 4	No				No		0	Clean/Reshape
RT	57+00	1.080	58+31	1.104	131	3	1	Figure 11	No				Yes - Ditch	27	0	Clean/Reshape
LT	58+29	1.104	59+29	1.123	100	0	3	Figure 4	No				No		0	Pipe Extension
RT	58+31	1.104	61+50	1.165	319	12	12	Figure 11	Yes	4	0.08	0.67	Yes - Ditch	64	27	SE Improvement
LT	60+50	1.146	61+50	1.165	100	0	3	Figure 4	No				No		0	Proposed Cross Drain
RT	61+50	1.165	65+00	1.231	350	8	3	Figure 11	No				Yes - Ditch	70	0	Clean/Reshape
RT	65+00	1.231	68+25	1.293	325	5	7	Figure 9	No				No		0	Clean/Reshape
LT	66+26	1.255	67+26	1.274	100	0	3	Figure 4	No				No		0	Proposed Cross Drain
RT	68+25	1.293	72+83	1.379	458	17	17	Figure 11	Yes	5	0.12	0.96	Yes - Ditch	92	38	SE Improvement
RT	72+83	1.379	74+00	1.402	117	2	3	Figure 11	No				Yes - Ditch	24	0	Clean/Reshape
RT	74+00	1.402	78+91	1.495	491	11	18	Figure 11	No				Yes - Ditch	99	0	Clean/Reshape
RT	78+91	1.495	80+00	1.572	409	15	15	Figure 11	Yes	4	0.11	0.86	Yes - Ditch	82	34	SE Improvement
LT	79+55	1.507	80+50	1.525	95	0	2	Figure 5	Yes	4	0.05	0.40	Yes - Fill Slope	19	16	Widen Shoulder near Stream
LT	81+25	1.539	83+00	1.572	175	0	4	Figure 5	Yes	7	0.09	0.73	Yes - Fill Slope	35	29	Widen Shoulder near Stream
RT	83+00	1.572	88+00	1.667	500	6	24	Figure 11	No				Yes - Ditch	100	0	Clean/Reshape
LT	85+00	1.610	87+25	1.652	225	0	36	Figure 2	No				No		0	Widen Shoulder
LT	87+25	1.652	94+00	1.780	675	0	53	Figure 4	No				No		0	Widen Shoulder

Ditching & Shouldering Summary

County: Jessamine

Route: US 68

* The "Figure References" noted below refer to the Figure number within the Ditching & Shouldering Detail Sheet that is the closest representation of the intended Ditching & Shouldering.
 ** The Estimated Volumes of Excavation and Embankment are provided for informational purposes ONLY. The Department gives no guarantee to the accuracy of the estimated volumes. The Bidder must draw his/her own conclusion. Payment will be based on the linear footage of Ditching & Shouldering performed, regardless of the accuracy of the Estimated Volumes of Excavation and Embankment.

Side of Road	Approx. BEGIN Station	Approx. BEGIN Milepoint	Approx. END Station	Approx. END Milepoint	Length (LF)	Estimated Excavation Volume** (CU YD)	Estimated Embankment Volume** (CU YD)	Ditching & Shouldering Detail Sheet Figure Ref.*	Include DGA Wedge? (Yes/No)	DGA (TONS)	Asphalt Seal Coat (TON)	Asphalt Seal Aggregate (TON)	Channel Line Ditch, Fill Slope or Cut Slope? (Yes/No)	Channel Lining Class II (TONS)	FABRIC-GEOTEXTILE CLASS 2(SQ YD)	Remarks
RT	88+00	1.667	92+50	1.752	450	0	72	Figure 3	No				No			Widen Shoulder
LT	94+00	1.780	113+00	2.140	1,900	260	183	Figure 9	No				No			Clean/Reshape
RT	95+00	1.799	101+00	1.913	600	0	19	Figure 2	No				No			Widen Shoulder
RT	101+00	1.913	112+75	2.135	1,175	0	32	Figure 4	No				No			Widen Shoulder
RT	114+75	2.173	117+75	2.230	300	4	4	Figure 9	No				No			Clean/Reshape
LT	121+00	2.292	128+50	2.434	750	0	36	Figure 2	No				No			Widen Shoulder
RT	121+82	2.307	139+56	2.643	1,774	20	20	Figure 9	No				No			Clean/Reshape
LT	128+50	2.434	146+76	2.780	1,826	0	149	Figure 2	No				No			Widen Shoulder
LT	149+00	2.822	152+00	2.879	300	0	8	Figure 2	No				No			Widen Shoulder
RT	154+50	2.926	160+00	3.030	550	0	90	Figure 3	No				No			Widen Shoulder
RT	160+00	3.030	164+25	3.111	425	0	5	Figure 2	No				No			Widen Shoulder
RT	165+00	3.125	184+00	3.485	1,900	0	120	Figure 2	No				No			Widen Shoulder
LT	166+00	3.144	170+00	3.220	400	22	4	Figure 8	No				No			Clean/Reshape
LT	171+25	3.243	186+00	3.523	1,475	0	191	Figure 2	No				No			Widen Shoulder
RT	184+00	3.485	190+41	3.606	641	2	5	Figure 8	No				No			Clean/Reshape
LT	186+70	3.536	194+50	3.608	380	0	11	Figure 2	No				No			Widen Shoulder
RT	190+41	3.606	194+00	3.674	359	1	3	Figure 8	No				No			Clean/Reshape
LT	198+27	3.755	200+50	3.797	223	20	1	Figure 5	Yes	9	0.12	0.93	Yes - Fill Slope	119	37	Widen Shoulder
RT	198+27	3.755	199+27	3.774	100	0	2	Figure 4	No				No			Pipe Extension
LT	206+00	3.902	208+00	3.959	200	0	18	Figure 2	No				No			Widen Shoulder
LT	208+00	3.939	220+50	4.176	1,250	0	102	Figure 2	No				No			Widen Shoulder

ITEM	DESCRIPTION	UNIT	QUANTITY
00001	DGA BASE	TON	54
00100	ASPHALT SEAL AGGREGATE	TON	9
00103	ASPHALT SEAL COAT	TON	2
02603	FABRIC-GEOTEXTILE CLASS 2	SOVD	292
02483	CHANNEL LINING CLASS II	TON	1,378
02575	DITCHING AND SHOULDERING	LF	27055

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field.
 All quantities carried over to the General Summary.

US 68 - JESSAMINE COUNTY
ITEM NO. 7-9009.00
ENTRANCE SUMMARY

Side of Road	Station	Milepoint	Type	CI2 Asph Surf 0.388 PG64-22 (ton)	CI2 Asph Base 1.00D PG64-22 (ton)	DGA (ton)	Remove Pipe (LF)	Entrance Pipe-15 in (LF)	Entrance Pipe-18 in (LF)	Headwall - Proposed	Notes
RT	95+78	1.814	GRAVEL	---	---	7.7	26	26		Headwall - Proposed	
RT	116+60	2.208	ASPH	1.9	6.1	6.4	30		30	15" Sloped & Mitered Headwall	For Ditching and Shouldering
RT	135+52	2.567	ASPH	1.8	5.9	6.1	24	24			For Ditching and Shouldering
ITEM	DESCRIPTION										
00001	DGA BASE										
00012	CI2 ASPH BASE 1.00D PG64-22										
00307	CI2 ASPH SURF 0.388 PG64-22										
00440	ENTRANCE PIPE-15 IN										
00441	ENTRANCE PIPE-18 IN										
01310	REMOVE PIPE										
02625	REMOVE HEADWALL										
24575E610	HEADWALL (SLOPED & MITERED CONCRETE FOR 15 INCH PIPE)										
UNIT	QUANTITY										
TON	21										
TON	12										
TON	4										
LF	50										
LF	30										
LF	80										
EACH	2										
EACH	2										

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All quantities carried over to the General Summary.

US 68 - JESSAMINE COUNTY ITEM NO. 7-9009.00 SUPERELEVATION IMPROVEMENT SUMMARY															
Curve No.	PC Station	PC Milepoint	PT Station	PT Milepoint	Radius	Length of Curve (ft)	Existing Superelevation	Desired SE	Runoff Length	Runout Length	Leveling & Wedging Pg 64-22 (ton)	Asphalt Pave Milling & Texturing (ton)	CI2 Asph. Surf. 0.388 Pg 64-22 (ton)	HFS (SY)	
3 WB	8+74.33	0.166	9+61.06	0.182	690	87	-0.1%	2.0%	51	51	93.2	28.5	48.6		
3 EB							-0.8%	-2.0%	51	51					
4 WB	10+05.70	0.190	12+97.63	0.246	2,275	292	-3.2%	2.0%	51	51	76.6	23.2	85.7		
4 EB							-0.9%								
7 WB	20+99.76	0.398	23+34.91	0.442	139	236	7.6%	HFS	128	34				385	
7 EB							-6.3%	HFS							
8 WB	23+73.36	0.450	25+32.85	0.480	684	160	-2.2%	2.0%	51	51	59.3	11.1	54.3		
8 EB							-4.3%								
10 WB	29+87.81	0.566	32+30.51	0.612	136	243	-7.8%	4.0%	64	32	80.5	47.1	93.1		
10 EB							2.8%								
11 WB	33+19.32	0.629	34+53.27	0.654	173	134	7.1%	HFS	134	34				318	
11 EB							-6.2%	HFS							
12 WB	35+04.52	0.664	37+07.73	0.702	175	204	-0.7%	-2.0%	51	51	113.7	44.1	68.1		
12 EB							1.3%								
16 WB	46+14.42	0.874	49+02.55	0.929	133	289	5.1%	HFS	81	32				384	
16 EB							-4.9%	HFS							
17 WB	51+08.23	0.967	54+13.93	1.025	297	306	-3.7%								
17 EB							1.1%	3.0%	55	36	106.4	57.6	90.4		
18 WB	59+04.14	1.118	60+71.80	1.150	359	168	-5.2%								
18 EB							1.5%	4.0%	73	36	62.5	20.2	64.4		
21 WB	69+22.25	1.311	71+85.50	1.361	248	264	4.2%	6.0%	109	36	144.2	128.5	111.9		
21 EB							-5.5%								
24 WB	79+58.98	1.507	82+36.01	1.560	1,507	278	-9.0%								
24 EB							0.1%	2.0%	51	51	75.9	34.6	86.5		
32 WB	184+86.80	3.501	189+73.23	3.593	1,067	487	0.6%	2.0%	51	51	48.5	79.0	109.8		
32 EB							-4.1%								
ITEM	DESCRIPTION				UNIT	QUANTITY									
00190	LEVELING & WEDGING PG64-22				TON	931									
00307	CI2 ASPH SURF 0.388 PG64-22				TON	848									
23229EC	HIGH FRICTION SURFACE TREATMENT				SQYD	1088									
02677	ASPHALT PAVE MILLING & TEXTURING				TON	579									
02697	EDGE LINE RUMBLE STRIPS				LF	10287									
06511	PAVE STRIPING-TEMP PAINT-6IN				LF	8914									
06515	PAVE STRIPING-PERM PAINT-6IN				LF	8914									

** Additional quantities are included for Curve 21 and Curve 32 to the Pekin Lane and McCauley Road into proposed superelevation improvements.

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field. All quantities carried over to the General Summary.

US 68 - JESSAMINE COUNTY ITEM NO. 7-9009.00 CRIBBING SUMMARY										
REPLACE OR INSTALL CRIBBING										
Offset	Begin Mile Point	Begin Station	End Mile Point	End Station	Description	Excavation & Backfill (CUYD)	Proposed Cribbing (SQFT)	Railroad Rails - Drilled (LF)	Channel Lining - Class II (Tons)	FABRIC-GEOTEXTILE CLASS 2 (SQYD)
LT	0.240	12+65	0.256	13+53	Replace Cribbing	6.40	176.00	264.00	29.30	48.89
LT	0.259	13+65	0.260	13+72	Replace Cribbing	0.50	10.50	19.69	1.75	3.50
LT	0.369	19+50	0.376	19+87	Replace Cribbing	2.83	111.00	124.88	18.48	26.67
LT	0.445	23+50	0.453	23+90	Replace Cribbing	3.05	120.00	135.00	19.98	26.67
LT	0.563	29+73	0.587	31+00	Replace Cribbing	10.16	508.00	476.25	84.58	98.78
LT	0.816	43+09	0.852	44+97	Replace Cribbing	14.36	564.00	634.50	93.91	125.33
LT	0.933	49+27	0.982	51+86	Replace Cribbing	19.78	777.00	874.13	129.37	172.67
LT	1.001	52+83	1.025	54+11	Replace Cribbing	9.31	256.00	384.00	42.62	71.11
LT	1.111	58+67	1.125	59+39	Replace Cribbing	5.50	216.00	243.00	35.96	48.00
LT	1.213	64+02	1.222	64+54	Replace Cribbing	4.18	209.08	196.01	34.81	40.65
LT	1.525	80+50	1.539	81+25	Proposed Cribbing	6.82	525.00	365.63	87.41	83.33
RT	1.684	88+91	1.694	89+42	Replace Cribbing	3.57	63.75	138.66	10.61	24.08
REPLACE OR INSTALL "GUARDRAIL" CRIBBING (in front of Guardrail)										
Offset	Begin Mile Point	Begin Station	End Mile Point	End Station	Description	Extra Length Guardrail Posts	Proposed Cribbing (SQFT)	CRUSHED AGGREGATE SIZE NO 2 (tons)	CRUSHED STONE BASE (tons)	FABRIC-GEOTEXTILE CLASS 2 (SQYD)
LT	0.133	7+00	0.142	7+50	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	100.00	20.13	2.88	38.89
LT	0.207	10+95	0.228	12+03	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	108.00	18.63	6.21	60.00
LT	0.356	18+82	0.395	19+50	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	68.00	11.73	3.91	37.78
LT	0.376	19+87	0.498	20+85	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	98.00	16.91	5.64	54.44
LT	0.453	23+90	0.482	25+43	Proposed "Guardrail Cribbing"	Accounted for in Guardrail Summary	306.00	61.58	8.80	119.00
LT	0.482	25+43	0.498	26+29	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	258.00	54.40	4.95	86.00
LT	0.587	31+00	0.616	32+50	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	150.00	25.88	8.63	83.33
LT	0.739	39+00	0.741	39+10	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	30.00	6.33	0.58	10.00
LT	0.797	42+09	0.816	43+09	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	99.70	17.20	5.73	55.39
LT	0.852	44+97	0.877	46+30	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	133.00	22.94	7.65	73.89
LT	1.222	64+54	1.260	66+55	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	200.57	34.60	11.53	111.43
LT	1.280	67+57	1.286	67+92	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	34.43	5.94	1.98	19.13

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ITEM	DESCRIPTION	UNIT	QUANTITY
02483	CHANNEL LINING CLASS II	TON	589
00078	CRUSHED AGGREGATE SIZE NO 2	TON	297
00003	CRUSHED STONE BASE	TON	69
02603	FABRIC-GEOTEXTILE CLASS 2	SOYD	1517
03234	RAILROAD RAILS-DRILLED	LF	3856
03235	EXCAVATION AND BACKFILL	CUYD	87
03236	CRIBBING	SQFT	5123

Sign Summary

Assembly ID	Side of Road	Approx Offset (ft)	Approx Station	Approx. Mile Point	Facing Traffic Traveling	MUTCD Code	Sign Description	Sign Text/Remarks	Sign Dimensions (in x in)	SHEETING			SBM Alum Sheet Signs 0.090 IN (SQ FT)	SBM Alum Sheet Signs 0.125 IN (SQ FT)	Installation Type	# of Sign Posts	Estimated Length of Sign Post (ft)	TOTAL Estimated Sign Post Length (LF)	Barcode Inv. (EACH)
										Text/ Symbol Color	Background Color	Sheeting Type							
1	RT	15	7+45	0.14	EB	OM2-2V	OBJECT MARKER TYPE 2		6	X	12	Yellow	White	XI	n/a	n/a	n/a	n/a	1
2	RT	15	29+00	0.55	EB	W1-1A	TURN/ADVISORY SPEED	20 MPH Left	36	X	36	Black	White	XI	9.00	n/a	11	11	1
3	RT	13	30+16	0.57	EB/WB	W1-8R/L	RIGHT/LEFT CHEVRON		18	X	24	Black	Fl. Yellow	XI	3.00	n/a	10	10	2
4	RT	18	30+16	0.57	EB/WB	W1-8R/L	REFLECTIVE POST PANELS 2'X60"		2	X	60	Fl. Yellow	Fl. Yellow	XI	1.67	n/a	10	10	2
5	RT	18	30+65	0.58	EB/WB	W1-8R/L	RIGHT/LEFT CHEVRON		18	X	24	Black	Fl. Yellow	XI	3.00	n/a	10	10	2
6	RT	15	39+07	0.74	EB	OM2-2V	REFLECTIVE POST PANELS 2'X60"		2	X	60	Fl. Yellow	Fl. Yellow	XI	1.67	n/a	n/a	n/a	2
7	RT	14	58+79	1.11	EB	OM2-2V	OBJECT MARKER TYPE 2		6	X	12	n/a	Yellow	XI	n/a	n/a	n/a	n/a	1
8	RT	19	59+81	1.13	EB/WB	W1-8R/L	RIGHT/LEFT CHEVRON		18	X	24	Black	Fl. Yellow	XI	6.00	n/a	10	10	2
9	RT	15	63+40	1.20	EB	OM2-2V	OBJECT MARKER TYPE 2		6	X	12	n/a	Yellow	XI	n/a	n/a	n/a	n/a	1
10	RT	12	69+19	1.31	EB	OM2-2V	OBJECT MARKER TYPE 2		6	X	12	n/a	Yellow	XI	n/a	n/a	n/a	n/a	1
11	RT	22	73+18	1.39	EB/WB	W1-8R/L	RIGHT/LEFT CHEVRON		18	X	24	Black	Fl. Yellow	XI	6.00	n/a	10	10	2
12	RT	15	73+21	1.40	EB	OM2-2V	OBJECT MARKER TYPE 2		6	X	12	n/a	Yellow	XI	n/a	n/a	n/a	n/a	1
13	LT	13	81+25	1.54	WB	OM2-2V	OBJECT MARKER TYPE 2		6	X	12	n/a	Yellow	XI	n/a	n/a	n/a	n/a	1
14	RT	15	81+41	1.54	EB	OM2-2V	OBJECT MARKER TYPE 2		6	X	12	n/a	Yellow	XI	n/a	n/a	n/a	n/a	1
15	RT	12	86+24	1.63	EB	OM2-2V	OBJECT MARKER TYPE 2		6	X	12	n/a	Yellow	XI	n/a	n/a	n/a	n/a	1
16	LT	12	89+38	1.69	EB	OM2-2V	OBJECT MARKER TYPE 2		6	X	12	n/a	Yellow	XI	n/a	n/a	n/a	n/a	1
17	LT	12	89+62	1.70	WB	OM2-2V	OBJECT MARKER TYPE 2		6	X	12	n/a	Yellow	XI	n/a	n/a	n/a	n/a	1
18	LT	15	89+65	1.70	EB	W1-4-3	NO PASSING ZONE		48 X 48 X 36	Black	Yellow	XI	5.56	n/a	Stnd w/ Soil Plate	2	25	25	1
19	LT	16	92+50	1.75	WB	W1-4-3	NO PASSING ZONE		48 X 48 X 36	Black	Yellow	XI	5.56	n/a	Stnd w/ Soil Plate	2	25	25	1
20	LT	16	113+67	2.15	WB	M1-5A	STATE ROUTE SIGN (3 OR 4 DIGIT)	RTE 1268	30	X	24	Black	White	XI	5.00	n/a	13	13	1
21	LT	16	113+67	2.15	WB	M6-1	ADVANCE LEFT TURN ARROW		21	X	15	Black	White	XI	2.19	n/a	13	13	1
22	LT	13	120+01	2.27	WB	M1-5A	STATE ROUTE SIGN (3 OR 4 DIGIT)	JCT 1268	30	X	24	Black	White	XI	5.00	n/a	13	13	1
23	LT	13	120+01	2.27	WB	M2-1	JUNCTION		21	X	15	Black	White	XI	2.19	n/a	13	13	1
24	LT	11	126+67	2.40	WB	W1-4-3	NO PASSING ZONE		48 X 48 X 36	Black	Yellow	XI	5.56	n/a	Stnd w/ Soil Plate	2	25	25	1
25	LT	12	126+99	2.41	WB	OM2-2V	OBJECT MARKER TYPE 2		6	X	12	n/a	Yellow	XI	n/a	n/a	n/a	n/a	1
26	LT	12	142+72	2.70	WB	OM2-2V	OBJECT MARKER TYPE 2		6	X	12	n/a	Yellow	XI	n/a	n/a	n/a	n/a	1
27	RT	15	181+25	3.43	EB	W2-2L	ADVANCED STREET NAME PLAQUE	McCauley Road	30	X	30	Black	Yellow	XI	6.25	n/a	11	11	1
28	RT	15	181+25	3.43	EB	W1-6-8R	ADVANCED STREET NAME PLAQUE	McCauley Road	24	X	12	Black	Yellow	XI	2.00	n/a	11	11	1
29	LT	15	189+50	3.59	WB	W2-2R	SIDE ROAD		30	X	30	Black	Yellow	XI	6.25	n/a	11	11	1
30	LT	15	189+50	3.59	WB	W1-6-8P	ADVANCED STREET NAME PLAQUE	McCauley Road	24	X	12	Black	Yellow	XI	2.00	n/a	11	11	1
31	LT	15	189+50	3.59	WB	W1-6-8P	ADVANCED STREET NAME PLAQUE	McCauley Road	24	X	12	Black	Yellow	XI	2.00	n/a	11	11	1
32	LT	12	207+03	3.92	EB	OM2-2V	OBJECT MARKER TYPE 2		6	X	12	n/a	Yellow	XI	n/a	n/a	n/a	n/a	1
33	LT	12	207+22	3.92	WB	OM2-2V	OBJECT MARKER TYPE 2		6	X	12	n/a	Yellow	XI	n/a	n/a	n/a	n/a	1

County: Jessamine

Route: US 68

Remove Sign

Jessamine County

US 68

Side of Road	Station	Approx. M/P	Remove Sign	Description
RT	29+00	0.55	1	TURN/ADVISORY SPEED
RT	30+16	0.57	1	RIGHT/LEFT CHEVRON
RT	30+16	0.57	1	REFLECTIVE POST PANELS 2'X60"
RT	30+65	0.58	1	RIGHT/LEFT CHEVRON
RT	30+65	0.58	1	REFLECTIVE POST PANELS 2'X60"
RT	59+81	1.13	1	RIGHT/LEFT CHEVRON
RT	73+18	1.39	1	RIGHT/LEFT CHEVRON
RT	89+38	1.69	1	OBJECT MARKER TYPE 3
LT	89+65	1.70	1	NO PASSING ZONE
LT	113+67	2.15	1	STATE ROUTE SIGN (3 OR 4 DIGIT)
LT	113+67	2.15	1	ADVANCE LEFT TURN ARROW
LT	120+01	2.27	1	STATE ROUTE SIGN (3 OR 4 DIGIT)
LT	120+01	2.27	1	JUNCTION
RT	123+30	2.34	1	NO PASSING ZONE
RT	181+25	3.43	1	SIDE ROAD
LT	189+50	3.59	1	SIDE ROAD

ITEM	DESCRIPTION	UNIT	QUANTITY
02565	OBJECT MARKER TYPE 2	EACH	16
06406	SBM ALUM SHEET SIGNS .080 IN	SQFT	62
06407	SBM ALUM SHEET SIGNS .125 IN	SQFT	17
06410	STIFF POST TYPE 1	LF	174
21373ND	REMOVE SIGN	EACH	12
24631EC	BARCODE SIGN INVENTORY	EACH	40

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field.
All quantities carried over to the General Summary.

US 68 - JESSAMINE COUNTY ITEM NO. 7-9009.00 SHOULDER REPAIR SUMMARY								
Offset	Begin Milepoint	Begin Station	End Milepoint	End Station	Crushed Aggregate Size No. 23 (TON)	CL2 Asphalt Base 1.00D PG64-22 (TON)	Leveling & Wedging PG64-22 (TON)	CL2 ASPH SURF 0.38B PG64-22
LT	0.743	39+25	0.814	43+00	210	62	62	26
LT	0.909	48+00	0.928	49+00	50	15	15	6

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QUANTITY</u>
00080	CRUSHED AGGREGATE SIZE NO 23	TON	261
00190	LEVELING & WEDGING PG64-22	TON	77
00307	CL2 ASPH SURF 0.38B PG64-22	TON	32
00212	CL2 ASPH BASE 1.00D PG64-22	TON	77

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field
 All quantities carried over to the General Summary.

US 68 - JESSAMINE COUNTY ITEM NO. 7-9009.00 PAVEMENT EDGE REPAIR SUMMARY										
Offset	Begin Milepoint	Begin Station	End Milepoint	End Station	Width (FT)	Crushed Aggregate Size No. 23 (TON)	CL2 Asphalt Base 1.00D PG64-22 (TON)	Leveling & Wedging PG64-22 (TON)	CL2 Asphalt Surface 0.388 PG64-22 (TON)	Edgeline Rumble Strips (LF)
LT	1.693	89+40	1.695	89+52	2.00	2.30	3.30	1.10	0.46	30.00
LT	1.220	64+40	1.223	64+60	4.00	4.60	6.60	2.20	0.92	30.00
LT	1.140	60+17	1.143	60+33	4.00	4.60	6.60	2.20	0.92	30.00
LT	1.118	59+01	1.132	59+77	4.00	11.65	16.72	5.57	2.32	76.00
RT	1.113	58+74	1.114	58+84	2.00	2.30	3.30	1.10	0.46	30.00
LT	0.463	24+45	0.465	24+55	4.00	4.60	6.60	2.20	0.92	30.00
LT	0.440	23+25	0.450	23+75	4.00	7.67	11.00	3.67	1.53	50.00
LT	0.376	19+87	0.387	20+43	2.00	4.29	6.16	2.05	0.86	56.00
LT	0.135	7+15	0.141	7+45	2.00	2.30	3.30	1.10	0.46	30.00
ITEM	DESCRIPTION			UNIT	QUANTITY					
00080	CRUSHED AGGREGATE SIZE NO 23			TON	45					
00307	CL2 ASPH SURF 0.388 PG64-22			TON	9					
00190	LEVELING & WEDGING PG64-22			TON	22					
02697	EDGELINE RUMBLE STRIPS			LF	362					
00212	CL2 ASPH BASE 1.00D PG64-22			TON	64					

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field.
All quantities carried over to the General Summary.

Trim and Remove Trees and Brush Summary

County: Jessamine Route: US 68

* Invert of Remarks is to provide the contractor with the approximate level of effect for each location. Refer to the Staking Record and Spatial Model for Tree Stump and Brush Removal for further details about expected level of effect, particularly Part 18 of the Construction Methods which describes when complete removal of trees are required.

** Approximate Dimensions for Tree Cleaning. Actual Dimensions determined in the Field by Engineer. Refer to Staking note.

LOCATION		Side of Road	Approx. BEGIN Milepoint	Approx. BEGIN Station	Approx. END Milepoint	Approx. END Station	Length (LF)	"X" Dimension**	"Y" Dimension**	Case 1 * Tree Trimming without Undergrowth Removal	Case 1B * Tree Trimming with Undergrowth Removal	Case 2 * Tree Trimming without Undergrowth Removal	Case 2B * Tree Trimming with Undergrowth Removal	Case 3B * Undergrowth Removal Only	Remarks *
LT	0.095	05-00	0.142	07-50	0.251	13+25	75	15	N/A	X					Tree canopy trimming only is expected at this location.
RT	0.237	12-50	0.251					15	N/A					X	Estimated linear foot quantity is for trimming and removal of trees as necessary for Rock Removal. See Rock Removal Summary for locations.
LT	0.341	18-00	0.388	20-50			250	15	35	X					Tree canopy trimming only is expected at this location.
RT	0.412	21+75	0.436	23-00			125	15	N/A				X		Estimated linear foot quantity is for trimming and removal of trees as necessary for Rock Removal. See Rock Removal Summary for locations.
RT	0.511	27-00	0.530	28-00			100	15	N/A				X		Estimated linear foot quantity is for trimming and removal of trees as necessary for Rock Removal. See Rock Removal Summary for locations.
RT	0.530	28+00	0.568	30+00			200	10	35	X					Tree canopy trimming only is expected at this location.
LT	0.568	30+00	0.625	33+00			300	15	35	X					Tree canopy trimming only is expected at this location.
RT	0.631	33+30	0.650	34+30			100	15	N/A				X		Estimated linear foot quantity is for trimming and removal of trees as necessary for Rock Removal. See Rock Removal Summary for locations.
RT	0.650	34+30	0.710	37-50			320	10	35	X					Tree canopy trimming only is expected at this location.
LT	0.663	35+00	0.748	39+50			450	15	35	X					Tree canopy trimming only is expected at this location.
LT	0.805	42-50	0.862	45-50			300	15	35	X					Tree canopy trimming only is expected at this location.
RT	0.881	46-50	0.928	49-00			250	15	N/A				X		Estimated linear foot quantity is for trimming and removal of trees as necessary for Rock Removal. See Rock Removal Summary for locations.
LT	0.966	51-00	1.042	55-00			400	15	35	X					Tree canopy trimming only is expected at this location.
RT	0.966	51+00	1.487	78-50			2750	10	35		X				Tree canopy trimming only is expected at this location.
LT	1.117	59+00	1.155	61+00			200	15	35	X					Tree canopy trimming only is expected at this location.
LT	1.241	65-50	1.307	69+00			350	15	35	X					Tree canopy trimming only is expected at this location.
LT	1.383	73+00	1.420	75-00			200	15	35	X					Tree canopy trimming only is expected at this location.
LT	1.506	79-50	1.572	83+00			350	15	35				X		Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location. Includes removal of 2.5 tree (<18" in diameter).
RT	1.515	80+00	1.553	82+00			200	10	35				X		Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location. Includes removal of 2 tree (<18" in diameter).
RT	1.634	86+30	1.661	87+70			140	10	35	X					Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
LT	1.648	87+00	1.771	93+50			650	10	35	X					Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
RT	1.695	89+50	1.752	92+50			300	10	35	X					Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
RT	2.320	122+50	2.528	133+50			1100	10	35	X					Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
LT	2.525	133+30	2.533	133+75			45	10	35				X		Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location. Includes removal of 2 tree (<18" in diameter).
LT	2.718	143+50	2.746	145+00			150	15	35				X		Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location. Includes removal of 3 tree (<18" in diameter).
LT	2.784	147+00	2.806	148+15			115	10	35	X					Tree canopy trimming only is expected at this location.
RT	3.125	165+00	3.182	168+00			300	15	35	X					Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
LT	3.305	174+50	3.341	176+40			190	10	35	X					Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
RT	3.404	179+75	3.499	184+75			500	15	35	X					Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
LT	3.897	205+75	3.906	206+25			50	10	35	X					Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.

ITEM	DESCRIPTION	UNIT	QUANTITY
03269	TRIM & REMOVE TREES & BRUSH	LF	10710

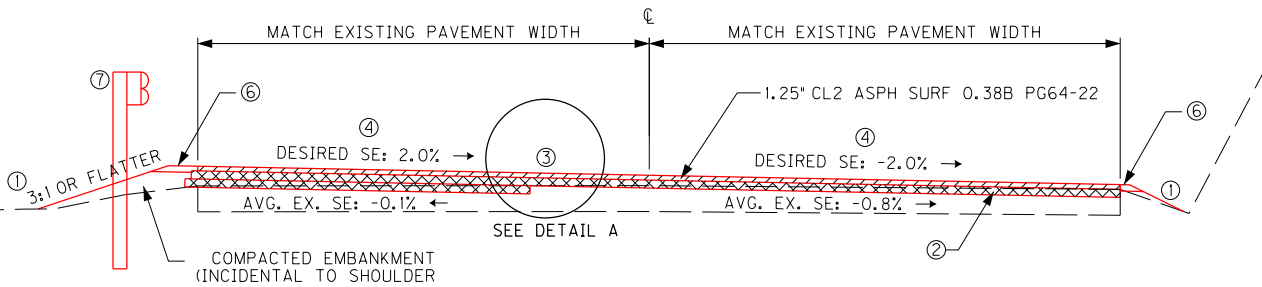
These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field. All quantities carried over to the General Summary.

US 68 - JESSAMINE COUNTY ITEM NO. 7-9009.00 ROCK REMOVAL SUMMARY					
Beginning STA	Ending STA	Length	Width	Excavation Volume (CY)	Notes
12+50	13+25	75	-	139	Only remove rock overhang
21+75	23+00	125	4	733	
27+00	28+00	100	4	369	
33+30	34+30	100	4	253	
46+50	48+40	190	4	697	

ITEM	DESCRIPTION	UNIT	QUANTITY
00212	CL2 ASPH BASE 1.00D PG64-22	TON	238
00307	CL2 ASPH SURF 0.38B PG64-22	TON	99
00356	ASPHALT MATERIAL FOR TACK	TON	4
02677	ASPHALT PAVE MILLING & TEXTURING	TON	337
02697	EDGE LINE RUMBLE STRIPS	LF	1,030
06511	PAVE STRIPING-TEMP PAINT-6 IN	LF	515
06515	PAVE STRIPING-PERM PAINT-6 IN	LF	515
23312EC	ROCK REMOVAL	CUYD	2,191

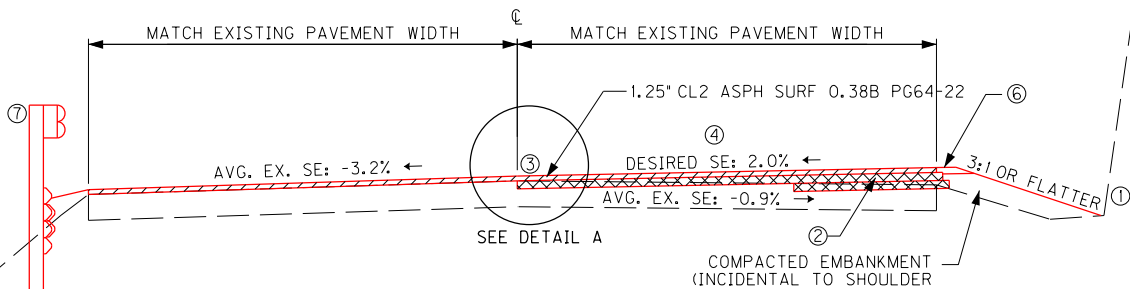
These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field
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COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



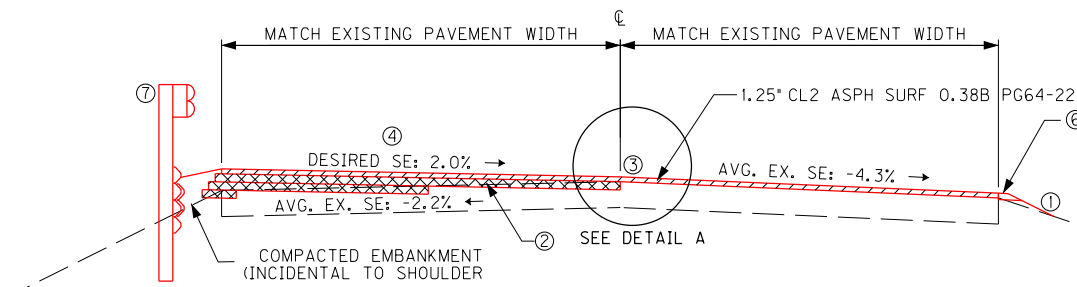
CURVE 3 SUPERELEVATION IMPROVEMENT

STA. 8+06.39 TO STA. 9+83.38 (5)



CURVE 4 SUPERELEVATION IMPROVEMENT

STA. 9+83.38 TO STA. 13+65.56 (5)

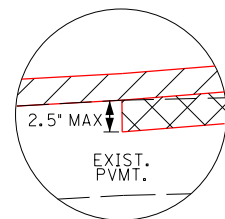


CURVE 8 SUPERELEVATION IMPROVEMENT

STA. 23+05.43 TO STA. 26+00.78 (5)

- ① 3:1 OR FLATTER IS DESIRABLE. LOCATIONS THAT ARE LIMITED DUE TO RIGHT-OF-WAY, UTILITY POLES, TREES, FENCES, OR OTHER SENSITIVE OBSTRUCTIONS MAY REQUIRE EMBANKMENT BUT ONLY OUT TO THE EDGE OF THE RIGHT-OF-WAY OR SENSITIVE OBSTRUCTION(S). (SLOPE MAY BE STEEPER THAN 3:1)
- ② LEVELING & WEDGING MIX DESIGN WILL BE BASED ON THE LIFT THICKNESSES BEING PLACED FOR EACH CURVE. NUMBER AND THICKNESS OF LIFTS SHOWN IN THESE DETAILS ARE GRAPHICAL REPRESENTATIONS ONLY AND ARE NOT MEANT TO BE TAKEN AS AN INDICATION OF ACTUAL FIELD CONDITIONS.
- ③ MAXIMUM DEPTH OF MILLING TO KEY INTO EXISTING PAVEMENT SHALL BE 2.5". SEE DETAIL A.
- ④ FINAL SUPERELEVATION RATE TO BE DETERMINED BY THE ENGINEER IN THE FIELD. DESIRED SUPERELEVATION RATE MAY NEED TO BE MODIFIED IN ORDER TO REMAIN WITHIN RIGHT-OF-WAY OR AVOID A SENSITIVE OBSTRUCTION.

- ⑤ STATION LIMITS INCLUDE SUPERELEVATION TRANSITIONS.
- ⑥ 2" DGA WITH 2 APPLICATIONS OF ASPHALT SEAL COAT. QUANTITIES INCLUDED IN SUPERELEVATION IMPROVEMENT SUMMARY.
- ⑦ REPLACE GUARDRAIL AS SHOWN ON GUARDRAIL SUMMARY.

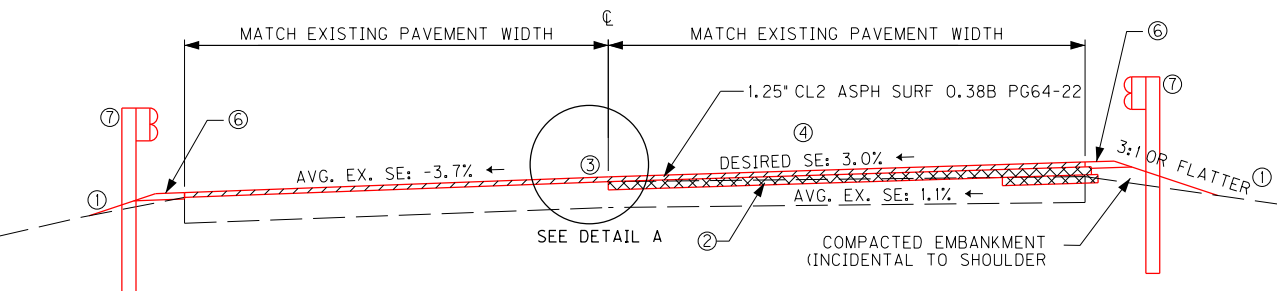
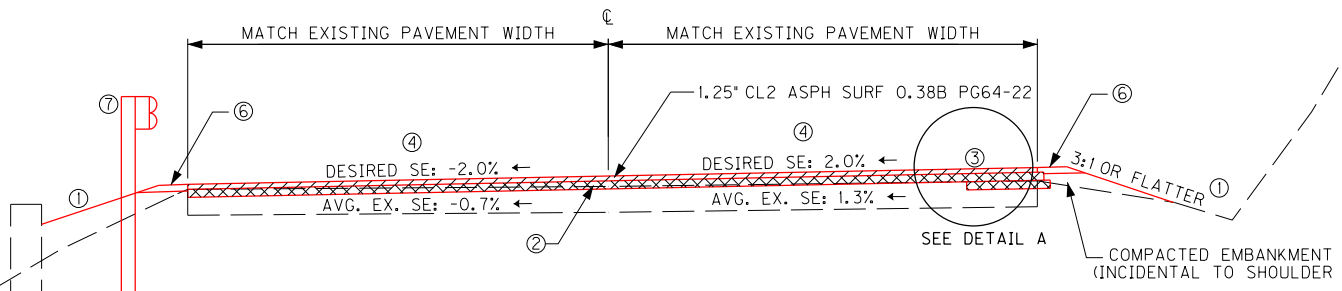
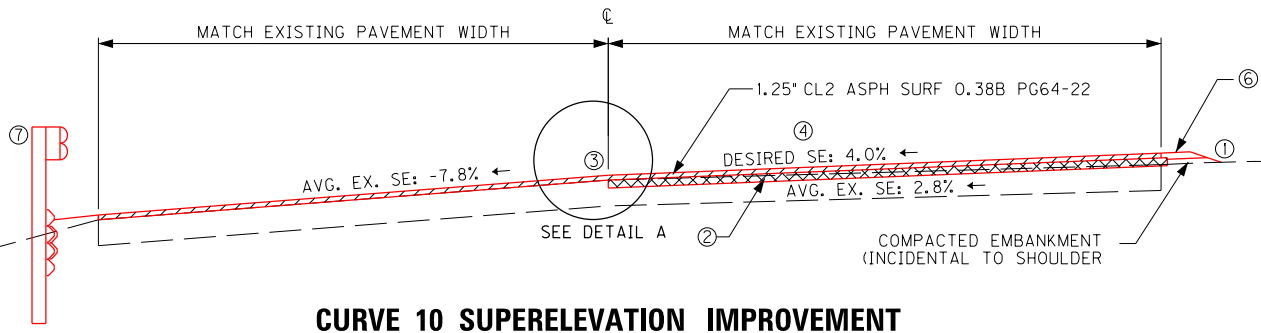


DETAIL A

US 68
SUPERELEVATION IMPROVEMENTS
TYPICAL SECTION

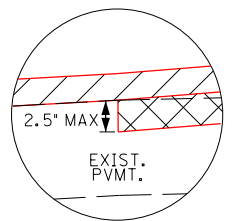
N. T. S.

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



- ① 3:1 OR FLATTER IS DESIRABLE. LOCATIONS THAT ARE LIMITED DUE TO RIGHT-OF-WAY, UTILITY POLES, TREES, FENCES, OR OTHER SENSITIVE OBSTRUCTIONS MAY REQUIRE EMBANKMENT BUT ONLY OUT TO THE EDGE OF THE RIGHT-OF-WAY OR SENSITIVE OBSTRUCTION(S). (SLOPE MAY BE STEEPER THAN 3:1)
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- ③ MAXIMUM DEPTH OF MILLING TO KEY INTO EXISTING PAVEMENT SHALL BE 2.5". SEE DETAIL A.
- ④ FINAL SUPERELEVATION RATE TO BE DETERMINED BY THE ENGINEER IN THE FIELD. DESIRED SUPERELEVATION RATE MAY NEED TO BE MODIFIED IN ORDER TO REMAIN WITHIN RIGHT-OF-WAY OR AVOID A SENSITIVE OBSTRUCTION.

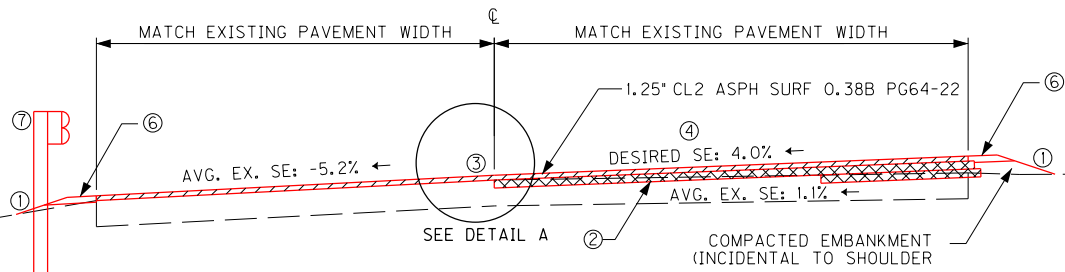
- ⑤ STATION LIMITS INCLUDE SUPERELEVATION TRANSITIONS.
- ⑥ 2" DGA WITH 2 APPLICATIONS OF ASPHALT SEAL COAT. QUANTITIES INCLUDED IN SUPERELEVATION IMPROVEMENT SUMMARY.
- ⑦ REPLACE GUARDRAIL AS SHOWN ON GUARDRAIL SUMMARY.



US 68
 SUPERELEVATION IMPROVEMENTS
 TYPICAL SECTION

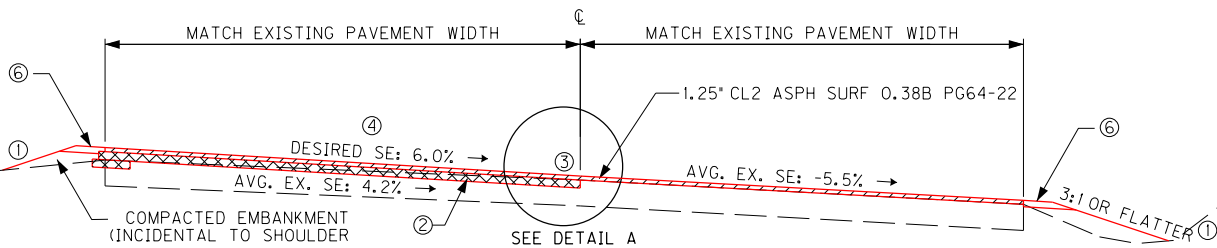
N. T. S.

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



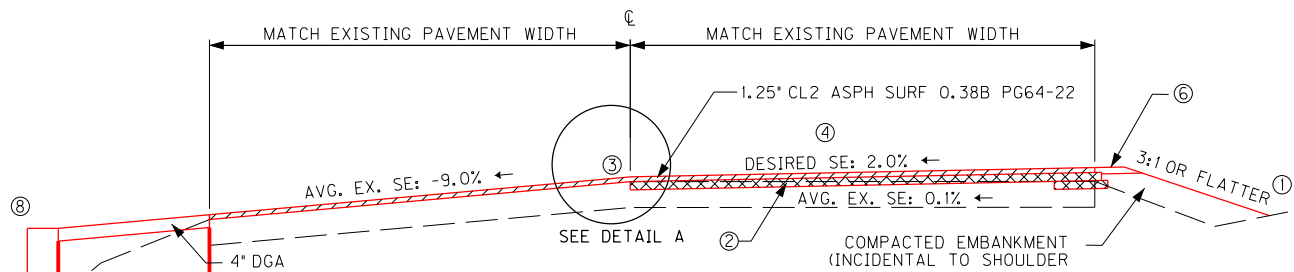
CURVE 18 SUPERELEVATION IMPROVEMENT

STA. 58+31.55 TO STA. 61+44.39 (5)



CURVE 21 SUPERELEVATION IMPROVEMENT

STA. 68+25.35 TO STA. 72+82.40 (5)

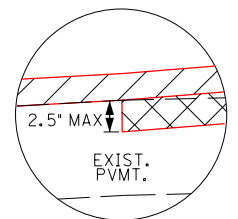


CURVE 24 SUPERELEVATION IMPROVEMENT

STA. 78+91.05 TO STA. 83+03.94 (5)

- ① 3:1 OR FLATTER IS DESIRABLE. LOCATIONS THAT ARE LIMITED DUE TO RIGHT-OF-WAY, UTILITY POLES, TREES, FENCES, OR OTHER SENSITIVE OBSTRUCTIONS MAY REQUIRE EMBANKMENT BUT ONLY OUT TO THE EDGE OF THE RIGHT-OF-WAY OR SENSITIVE OBSTRUCTION(S). (SLOPE MAY BE STEEPER THAN 3:1)
- ② LEVELING & WEDGING MIX DESIGN WILL BE BASED ON THE LIFT THICKNESSES BEING PLACED FOR EACH CURVE. NUMBER AND THICKNESS OF LIFTS SHOWN IN THESE DETAILS ARE GRAPHICAL REPRESENTATIONS ONLY AND ARE NOT MEANT TO BE TAKEN AS AN INDICATION OF ACTUAL FIELD CONDITIONS.
- ③ MAXIMUM DEPTH OF MILLING TO KEY INTO EXISTING PAVEMENT SHALL BE 2.5". SEE DETAIL A.
- ④ FINAL SUPERELEVATION RATE TO BE DETERMINED BY THE ENGINEER IN THE FIELD. DESIRED SUPERELEVATION RATE MAY NEED TO BE MODIFIED IN ORDER TO REMAIN WITHIN RIGHT-OF-WAY OR AVOID A SENSITIVE OBSTRUCTION.

- ⑤ STATION LIMITS INCLUDE SUPERELEVATION TRANSITIONS.
- ⑥ 2" DGA WITH 2 APPLICATIONS OF ASPHALT SEAL COAT. QUANTITIES INCLUDED IN SUPERELEVATION IMPROVEMENT SUMMARY.
- ⑦ REPLACE GUARDRAIL AS SHOWN ON GUARDRAIL SUMMARY.
- ⑧ INSTALL CRIBBING AS SHOWN ON CRIBBING SUMMARY.

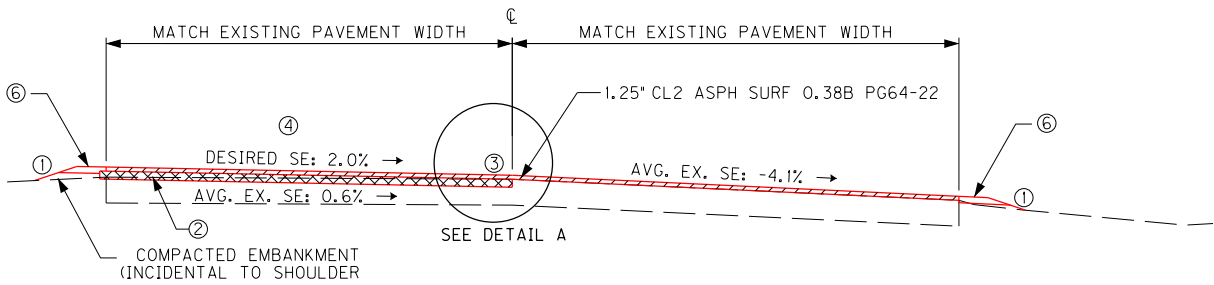


DETAIL A

US 68
SUPERELEVATION IMPROVEMENTS
TYPICAL SECTION

N. T. S.

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00

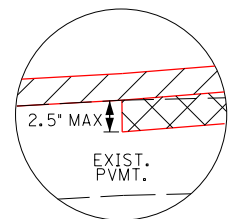


CURVE 32 SUPERELEVATION IMPROVEMENT

STA. 184+18.87 TO STA. 190+41.16 ⑤

- ① 3:1 OR FLATTER IS DESIRABLE. LOCATIONS THAT ARE LIMITED DUE TO RIGHT-OF-WAY, UTILITY POLES, TREES, FENCES, OR OTHER SENSITIVE OBSTRUCTIONS MAY REQUIRE EMBANKMENT BUT ONLY OUT TO THE EDGE OF THE RIGHT-OF-WAY OR SENSITIVE OBSTRUCTION(S). (SLOPE MAY BE STEEPER THAN 3:1)
- ② LEVELING & WEDGING MIX DESIGN WILL BE BASED ON THE LIFT THICKNESSES BEING PLACED FOR EACH CURVE. NUMBER AND THICKNESS OF LIFTS SHOWN IN THESE DETAILS ARE GRAPHICAL REPRESENTATIONS ONLY AND ARE NOT MEANT TO BE TAKEN AS AN INDICATION OF ACTUAL FIELD CONDITIONS.
- ③ MAXIMUM DEPTH OF MILLING TO KEY INTO EXISTING PAVEMENT SHALL BE 2.5". SEE DETAIL A.
- ④ FINAL SUPERELEVATION RATE TO BE DETERMINED BY THE ENGINEER IN THE FIELD. DESIRED SUPERELEVATION RATE MAY NEED TO BE MODIFIED IN ORDER TO REMAIN WITHIN RIGHT-OF-WAY OR AVOID A SENSITIVE OBSTRUCTION.

- ⑤ STATION LIMITS INCLUDE SUPERELEVATION TRANSITIONS.
- ⑥ 2" DGA WITH 2 APPLICATIONS OF ASPHALT SEAL COAT. QUANTITIES INCLUDED IN SUPERELEVATION IMPROVEMENT SUMMARY.

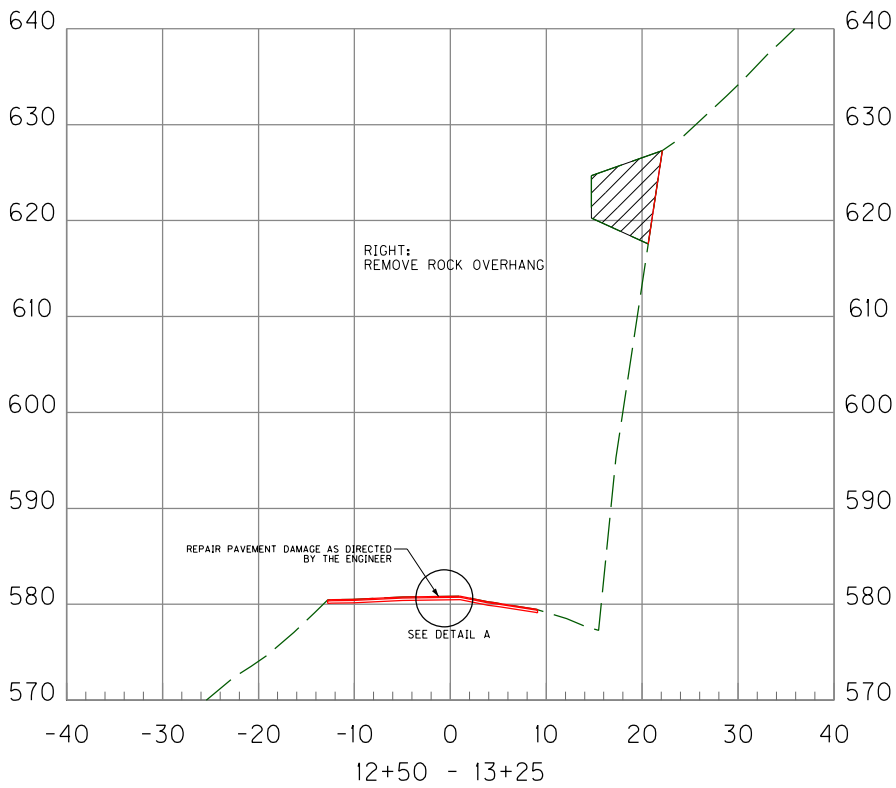


DETAIL A

N. T. S.

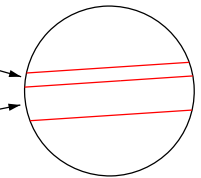
US 68
 SUPERELEVATION IMPROVEMENTS
 TYPICAL SECTION

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00

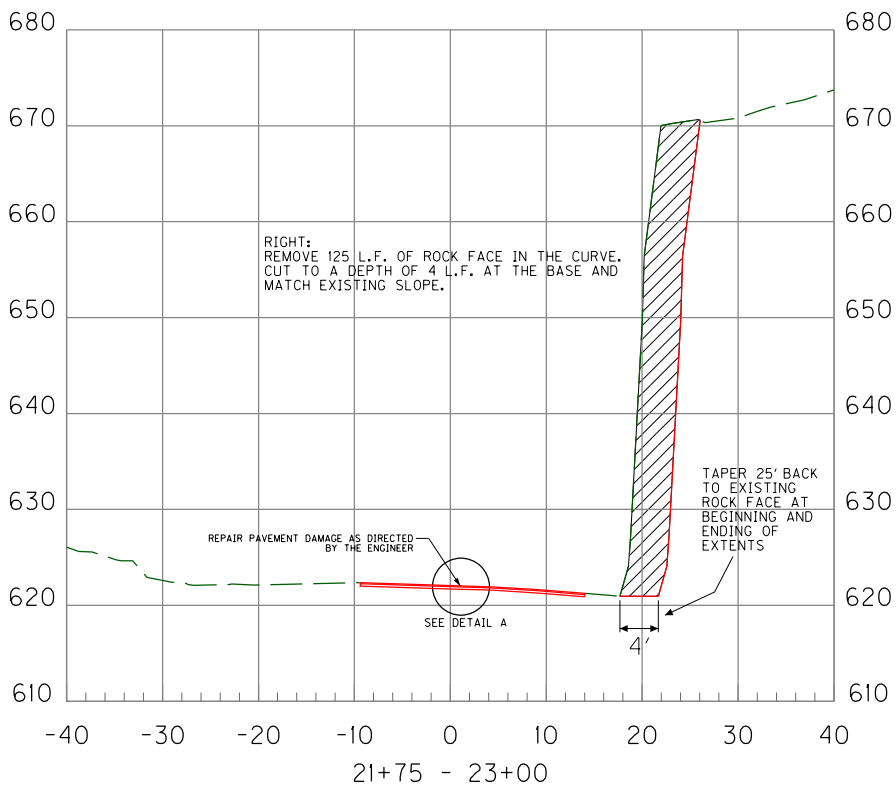


1.25" CL2 ASPH
 SURF 0.38B PG64-22

3.00" CL2 ASPH
 BASE 1.00D PG64-22



DETAIL A



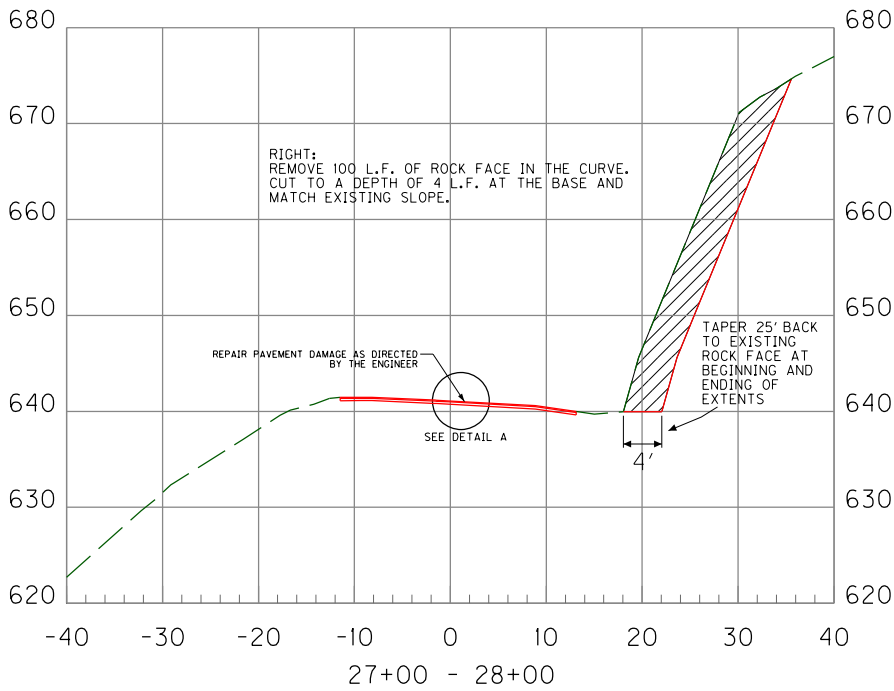
NOTES:

1. ALL ROCK EXCAVATION TO BE COMPLETED FROM THE ROADWAY.
2. WASTE ALL EXCAVATED ROCK MATERIAL ON WESTERN SLOPES FOR STABILIZATION.

SCALE: 1"=20'

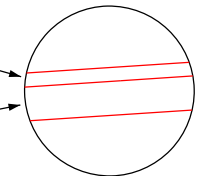
US 68
 ROCK REMOVAL
 DETAIL SHEET

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00

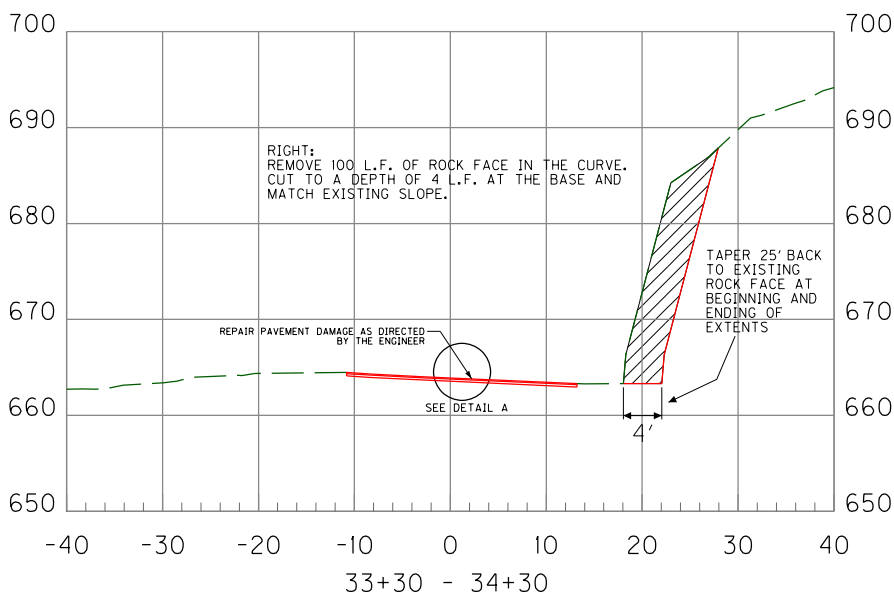


1.25" CL2 ASPH
SURF 0.38B PG64-22

3.00" CL2 ASPH
BASE 1.00D PG64-22



DETAIL A



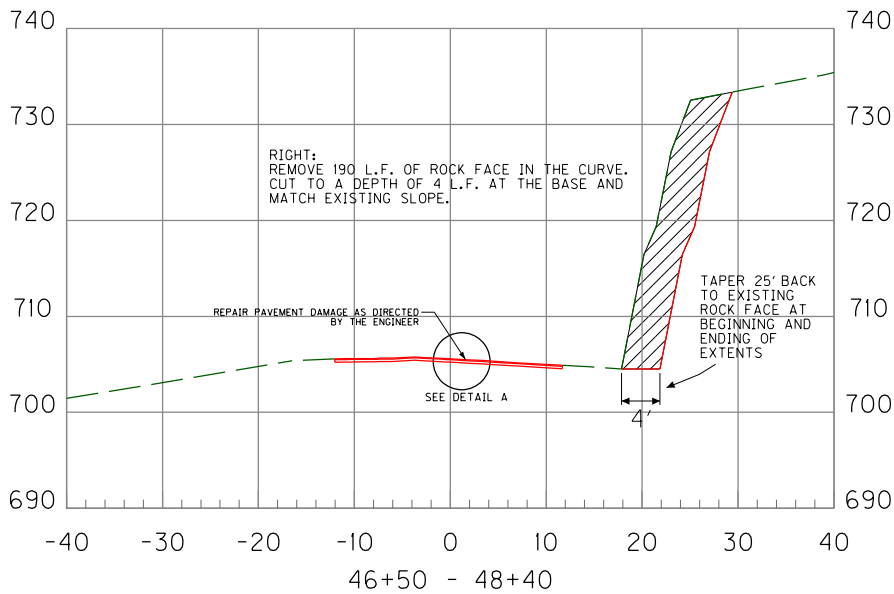
NOTES:

1. ALL ROCK EXCAVATION TO BE COMPLETED FROM THE ROADWAY.
2. WASTE ALL EXCAVATED ROCK MATERIAL ON WESTERN SLOPES FOR STABILIZATION.

SCALE: 1"=20'

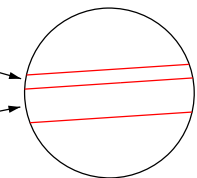
US 68
ROCK REMOVAL
DETAIL SHEET

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



1.25" CL2 ASPH SURF 0.38B PG64-22

3.00" CL2 ASPH BASE 1.00D PG64-22



DETAIL A

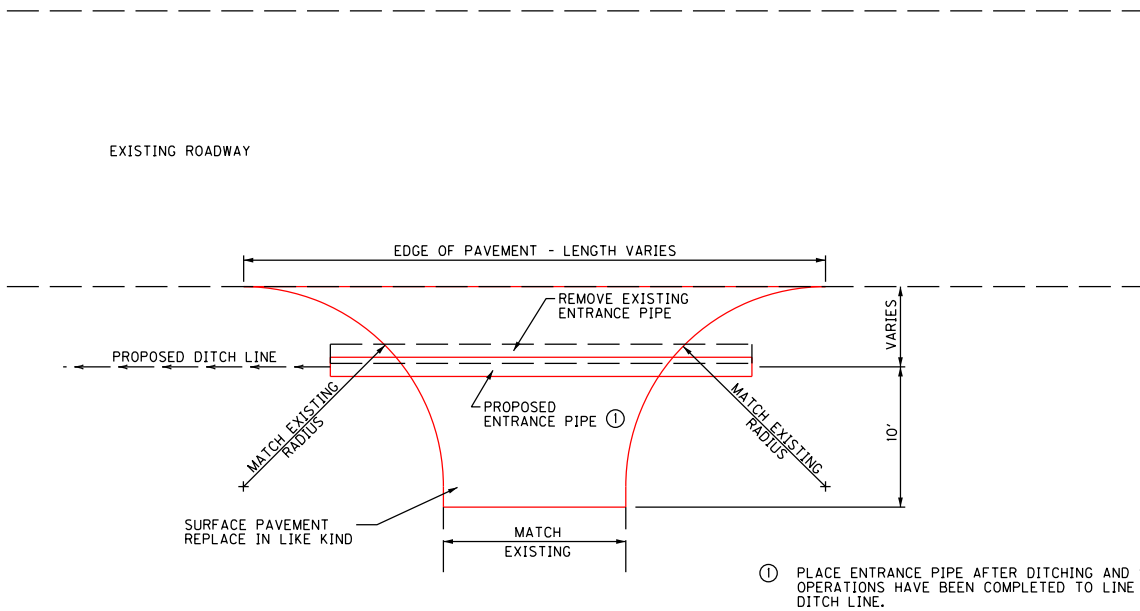
NOTES:

1. ALL ROCK EXCAVATION TO BE COMPLETED FROM THE ROADWAY.
2. WASTE ALL EXCAVATED ROCK MATERIAL ON WESTERN SLOPES FOR STABILIZATION.

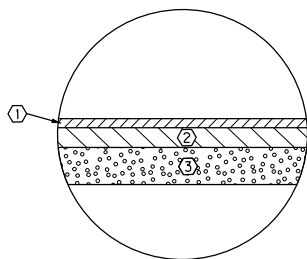
SCALE: 1"=20'

US 68
 ROCK REMOVAL
 DETAIL SHEET

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00

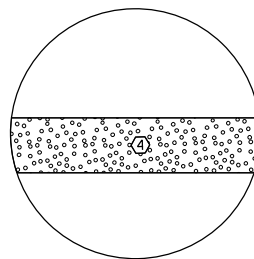


ENTRANCE DETAIL



ASPHALT ENTRANCE
 NTS

- ① 1.50" CL2 ASPH SURFACE 0.38B PG64-22
- ② 2.00" CL2 ASPH BASE 1.00D PG64-22
- ③ 4.00" DGA



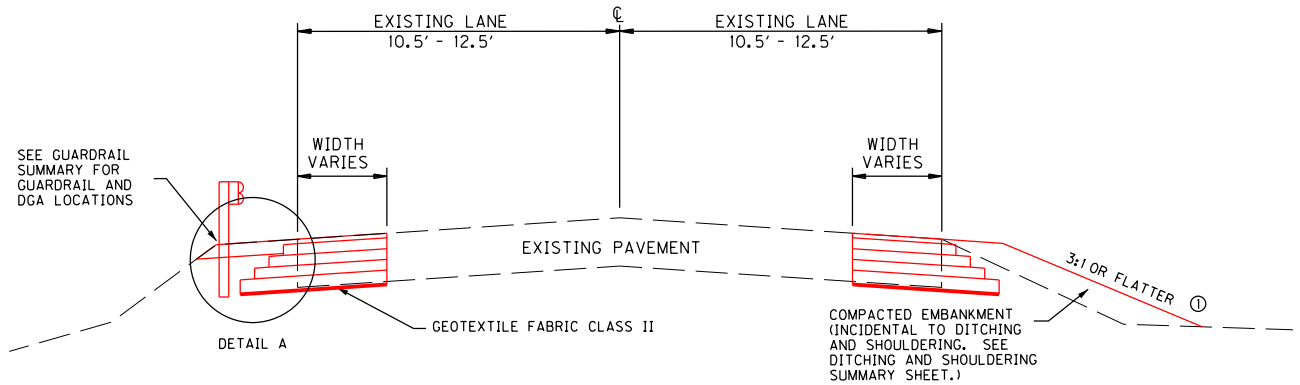
GRAVEL ENTRANCE
 NTS

- ④ 6.00" DGA

NOT TO SCALE

US 68
 ENTRANCE DETAIL SHEET

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



PAVEMENT EDGE REPAIR DETAIL

PAVEMENT EDGE REPAIR

- 1.25" CL2 ASPH SURF 0.38B PG64-22
- 3.00" CL2 ASPH BASE 1.00D PG64-22
- 3.00" CL2 ASPH BASE 1.00D PG64-22
- 3.00" CL2 ASPH BASE 1.00D PG64-22
- 6.00" CRUSHED AGGREGATE NO. 23

- 1.25" CL2 ASPH SURF 0.38B PG64-22
- 3.00" CL2 ASPH BASE 1.00D PG64-22
- 3.00" CL2 ASPH BASE 1.00D PG64-22
- 3.00" CL2 ASPH BASE 1.00D PG64-22
- 6.00" CRUSHED AGGREGATE NO. 23

GEOTEXTILE FABRIC CLASS II

DETAIL A

① 3:1 OR FLATTER IS DESIRABLE, LOCATIONS THAT ARE LIMITED DUE TO RIGHT-OF-WAY, UTILITY POLES, TREES, FENCES, OR OTHER SENSITIVE OBSTRUCTIONS MAY REQUIRE EMBANKMENT BUT ONLY OUT TO THE EDGE OF THE RIGHT-OF-WAY OR SENSITIVE OBSTRUCTION(S). (SLOPE MAY BE STEEPER THAN 3:1)

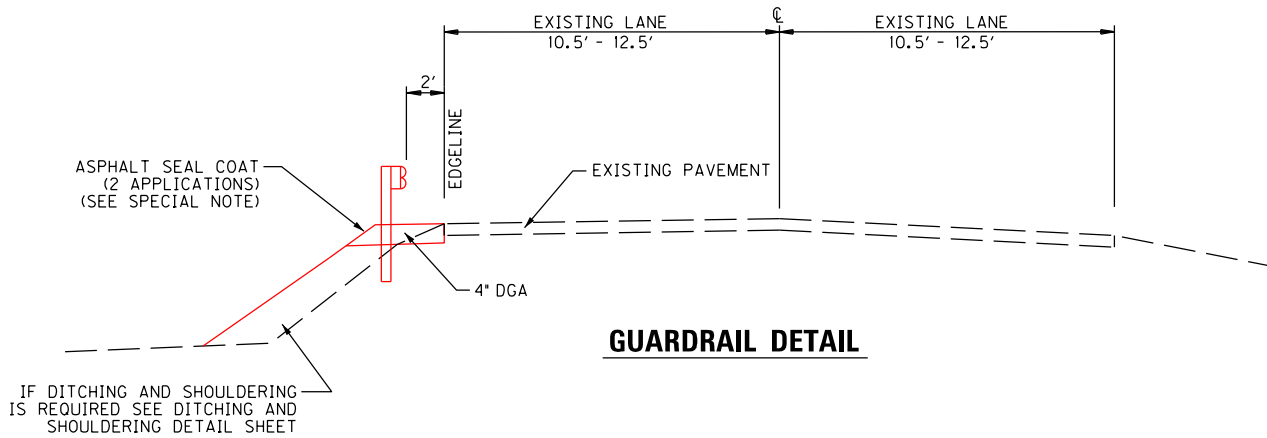
NOTES:

1. CONTRACTOR SHALL PROPERLY BENCH INTO EXISTING SLOPE AND APPLY PROPER COMPACTION.
2. COMPACT MATERIAL ACCORDING TO STANDARD SPECIFICATIONS (SECT. 206).
3. SHOULDER EMBANKMENT MATERIAL SHALL BE SUITABLE FOR VEGETATION GROWTH.
4. SEE SUMMARY SHEETS FOR GUARDRAIL OR CRIBBING LOCATIONS.

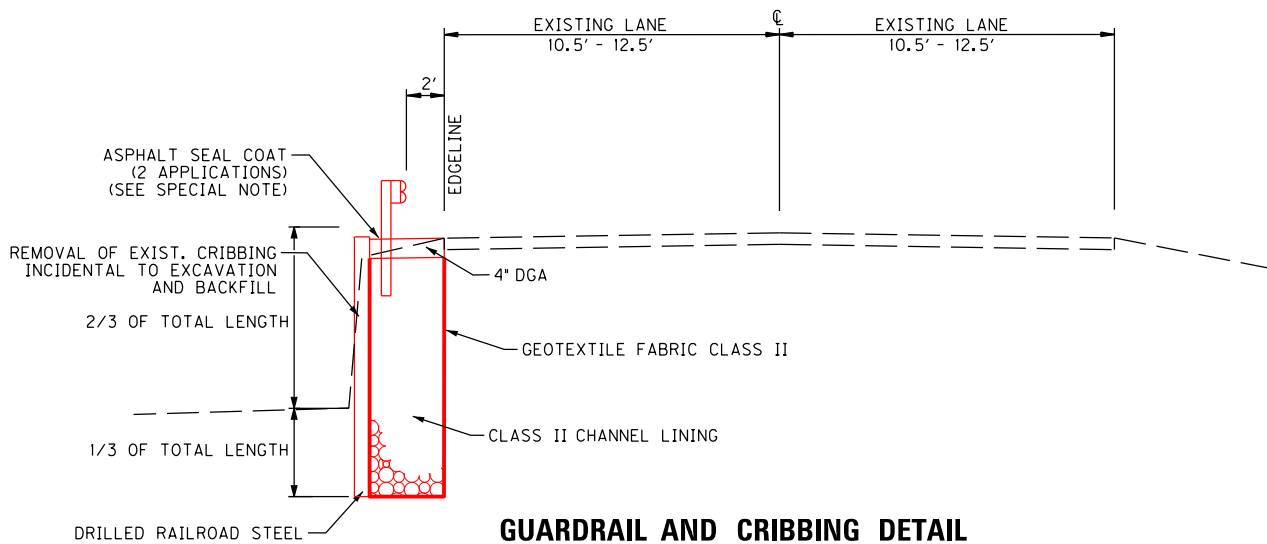
NOT TO SCALE

US 68
 PAVEMENT EDGE REPAIR
 DETAIL SHEET

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



GUARDRAIL DETAIL



GUARDRAIL AND CRIBBING DETAIL

NOTES:

1. SEE GUARDRAIL SUMMARY FOR GUARDRAIL LOCATIONS.
2. CONSTRUCT DITCHING AND SHOULDERING, DGA WEDGE, OR CRIBBING (AS APPLICABLE) BEFORE INSTALLING GUARDRAIL. REMOVAL OF EXISTING CRIBBING IS INCIDENTAL TO EXCAVATION & BACKFILL.

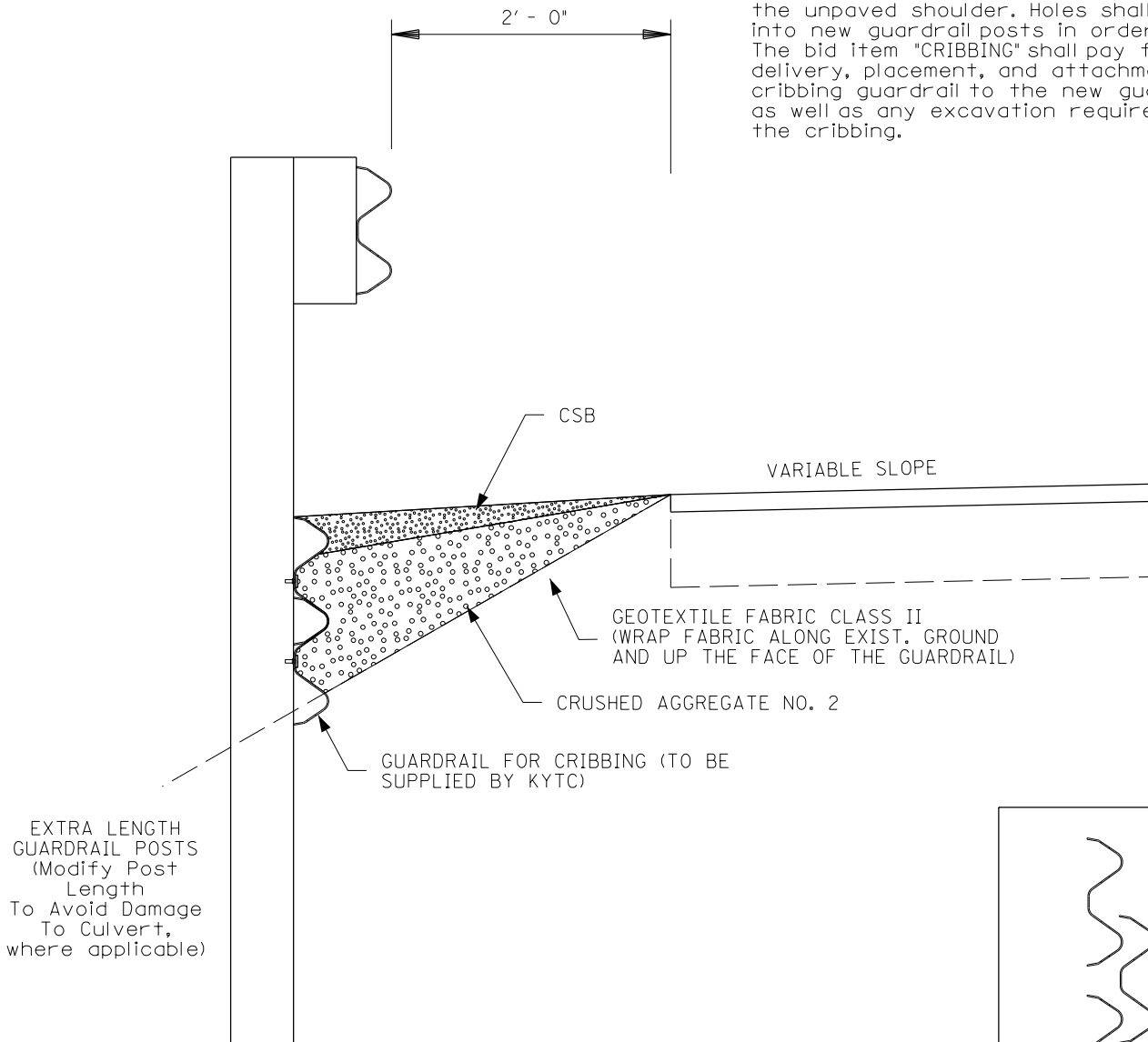
NOT TO SCALE

US 68
 GUARDRAIL & CRIBBING
 DETAIL SHEET

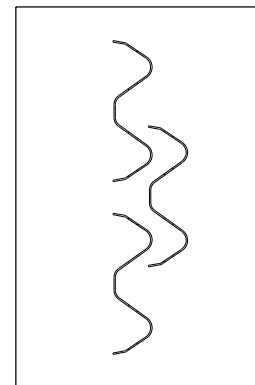
COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00

GUARDRAIL CRIBBING DETAIL

Contractor can utilize the existing guardrail being removed along the project, or may pick up guardrail at the Bailey Bridge lot in Frankfort to use for cribbing to stabilize the unpaved shoulder. Holes shall be drilled into new guardrail posts in order to bolt. The bid item "CRIBBING" shall pay for pick up, delivery, placement, and attachment of the cribbing guardrail to the new guardrail posts as well as any excavation required to place the cribbing.



EXTRA LENGTH
GUARDRAIL POSTS
(Modify Post
Length
To Avoid Damage
To Culvert,
where applicable)

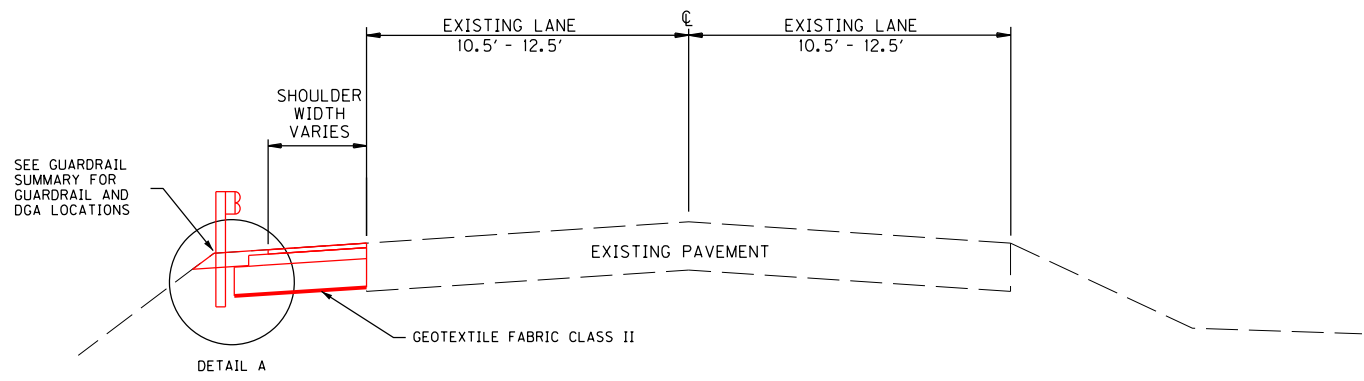


CRIBBING OVERLAP
DETAIL

NOT TO SCALE

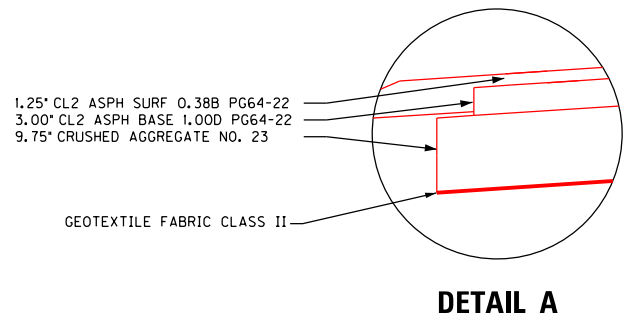
US 68
GUARDRAIL CRIBBING
DETAIL SHEET

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



SHOULDER REPAIR DETAIL

SHOULDER REPAIR
 1.25' CL2 ASPH SURF 0.38B PG64-22
 3.00' CL2 ASPH BASE 1.00D PG64-22
 9.75' CRUSHED AGGREGATE NO. 23



- NOTES:**
- SEE SUMMARY SHEETS FOR GUARDRAIL OR CRIBBING LOCATIONS.

NOT TO SCALE

US 68
 SHOULDER REPAIR
 DETAIL SHEET

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
3 (EB/WB)	8+74.33	9+61.06

DITCHING AND SHOULDERING		
OFFSET	STA. TO STA.	
LT	6+77 - 7+77	
RT	7+66 - 9+00	
LT	8+06 - 9+00	

REPLACE EX CRIBBING (In Front of Guardrail)		
OFFSET	STA. TO STA.	LENGTH
LT	7+00 - 7+50	50

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
1	RT (EB)	7+45	OBJECT MARKER TYPE 2

STA. 7+27
EXTEND 24" RCP
LEFT:
REMOVE 4 L.F. EXISTING PIPE & HEADWALL
INSTALL 6 L.F. 24" CULVERT PIPE
INSTALL PIPE CULVERT HEADWALL

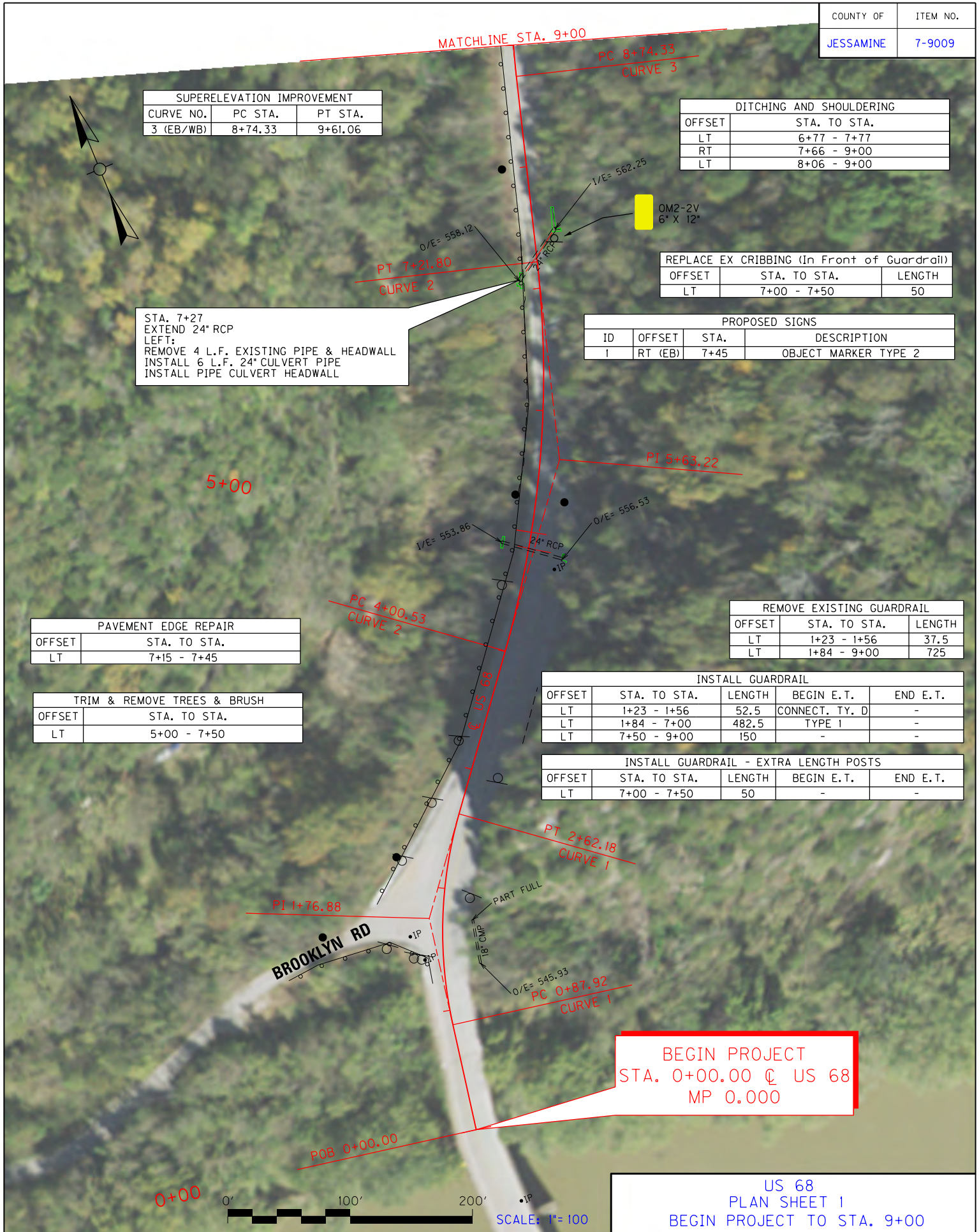
PAVEMENT EDGE REPAIR	
OFFSET	STA. TO STA.
LT	7+15 - 7+45

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	5+00 - 7+50

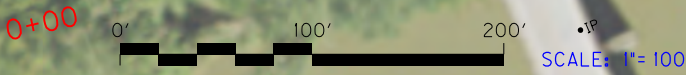
REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	1+23 - 1+56	37.5
LT	1+84 - 9+00	725

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	1+23 - 1+56	52.5	CONNECT. TY. D	-
LT	1+84 - 7+00	482.5	TYPE I	-
LT	7+50 - 9+00	150	-	-

INSTALL GUARDRAIL - EXTRA LENGTH POSTS				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	7+00 - 7+50	50	-	-

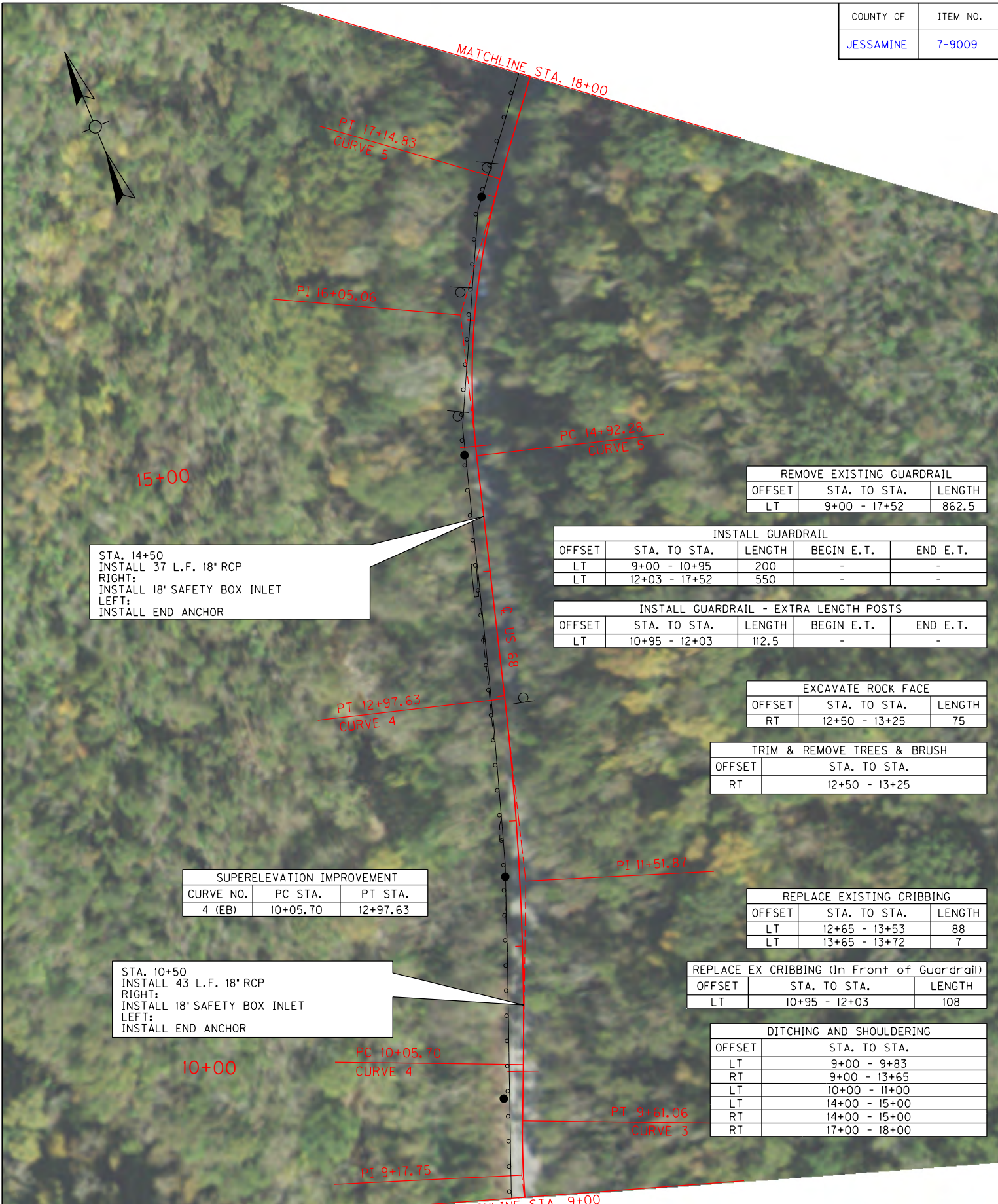


BEGIN PROJECT
STA. 0+00.00 @ US 68
MP 0.000



US 68
PLAN SHEET 1
BEGIN PROJECT TO STA. 9+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



STA. 14+50
INSTALL 37 L.F. 18" RCP
RIGHT:
INSTALL 18" SAFETY BOX INLET
LEFT:
INSTALL END ANCHOR

STA. 10+50
INSTALL 43 L.F. 18" RCP
RIGHT:
INSTALL 18" SAFETY BOX INLET
LEFT:
INSTALL END ANCHOR

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
4 (EB)	10+05.70	12+97.63

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	9+00 - 17+52	862.5

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	9+00 - 10+95	200	-	-
LT	12+03 - 17+52	550	-	-

INSTALL GUARDRAIL - EXTRA LENGTH POSTS				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	10+95 - 12+03	112.5	-	-

EXCAVATE ROCK FACE		
OFFSET	STA. TO STA.	LENGTH
RT	12+50 - 13+25	75

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	12+50 - 13+25

REPLACE EXISTING CRIBBING		
OFFSET	STA. TO STA.	LENGTH
LT	12+65 - 13+53	88
LT	13+65 - 13+72	7

REPLACE EX CRIBBING (In Front of Guardrail)		
OFFSET	STA. TO STA.	LENGTH
LT	10+95 - 12+03	108

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
LT	9+00 - 9+83
RT	9+00 - 13+65
LT	10+00 - 11+00
LT	14+00 - 15+00
RT	14+00 - 15+00
RT	17+00 - 18+00



US 68
PLAN SHEET 2
STA. 9+00 TO STA. 18+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
2	RT (EB)	29+00	CURVE WARNING & ADVISORY SPEED

PAVEMENT EDGE REPAIR	
OFFSET	STA. TO STA.
LT	19+87 - 20+43
LT	23+25 - 23+75
LT	24+45 - 24+55

STA. 23+50
INSTALL 35 L.F. 18" RCP
RIGHT:
INSTALL 18" SAFETY BOX INLET
LEFT:
INSTALL END ANCHOR

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
8 (WB)	23+73.36	25+32.85
10 (EB)	29+87.81	32+30.51

HFS TREATMENT		
CURVE NO.	PC STA.	PT STA.
7 (EB/WB)	20+99.76	23+34.91

INSTALL CRIBBING (In Front of G-Rail)		
OFFSET	STA. TO STA.	LENGTH
LT	23+90 - 25+43	153

REPLACE EXISTING CRIBBING		
OFFSET	STA. TO STA.	LENGTH
LT	19+50 - 19+87	37
LT	23+50 - 23+90	40
LT	29+73 - 30+00	27

REPLACE EX CRIBBING (In Front of Guardrail)		
OFFSET	STA. TO STA.	LENGTH
LT	18+82 - 19+50	68
LT	19+87 - 20+85	98
LT	25+43 - 26+29	86

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
RT	18+00 - 28+00
LT	19+00 - 20+00
LT	23+00 - 26+01
RT	29+24 - 30+00

STA. 29+00
REMOVE EXISTING
WARNING SIGN

EXCAVATE ROCK FACE		
OFFSET	STA. TO STA.	LENGTH
RT	21+75 - 23+00	125
RT	27+00 - 28+00	100

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	18+82 - 30+00	1125

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	19+50 - 19+87	37.5	-	-
LT	20+85 - 23+90	312.5	-	-
LT	26+29 - 30+00	375	-	-

INSTALL GUARDRAIL - EXTRA LENGTH POSTS				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	18+82 - 19+50	75	-	-
LT	19+87 - 20+85	100	-	-
LT	23+90 - 26+29	250	-	-

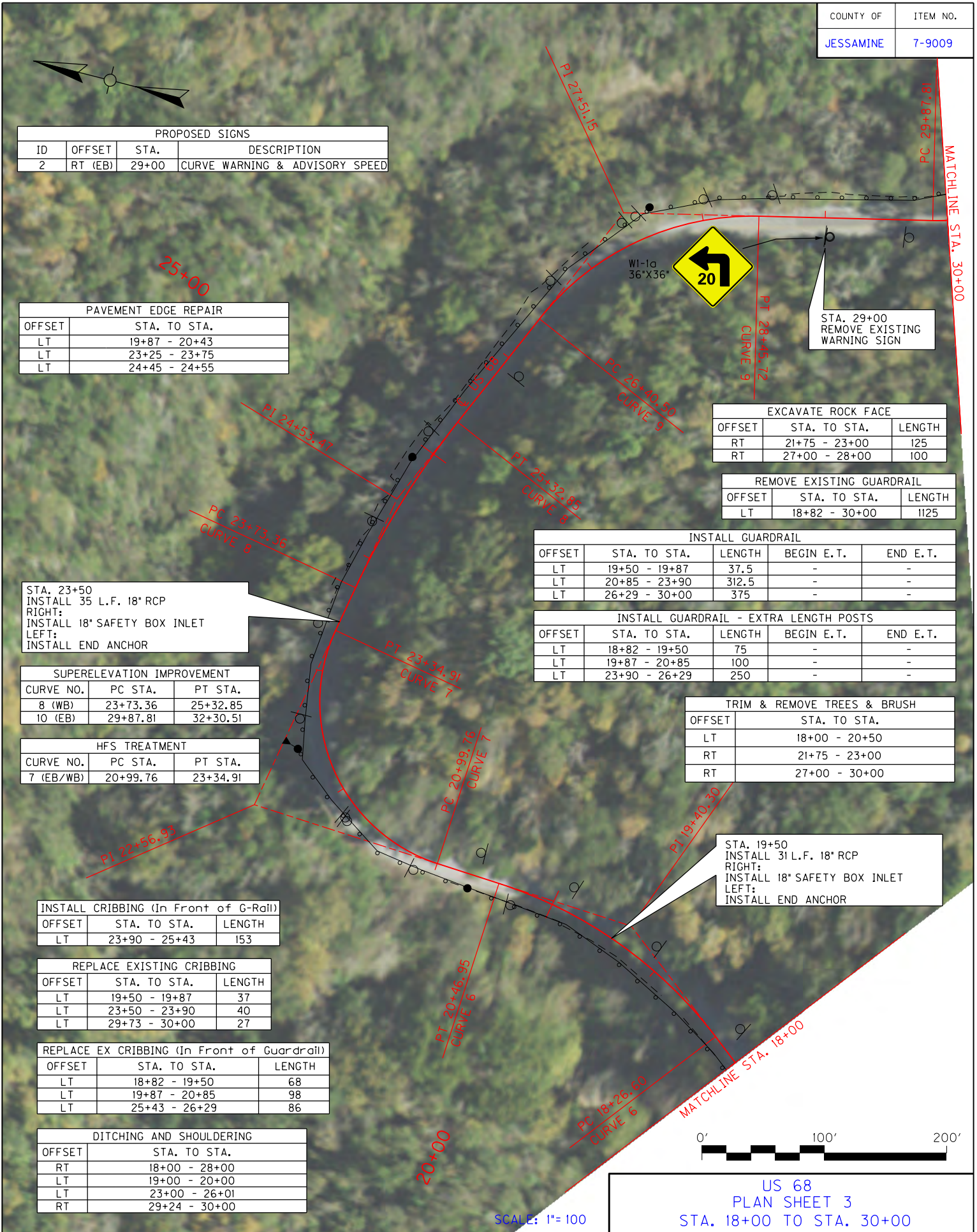
TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	18+00 - 20+50
RT	21+75 - 23+00
RT	27+00 - 30+00

STA. 19+50
INSTALL 31 L.F. 18" RCP
RIGHT:
INSTALL 18" SAFETY BOX INLET
LEFT:
INSTALL END ANCHOR

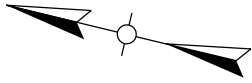


US 68
PLAN SHEET 3
STA. 18+00 TO STA. 30+00

SCALE: 1"= 100'



COUNTY OF	ITEM NO.
JESSAMINE	7-9009



TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	30+00 - 33+00
RT	33+30 - 37+50
LT	35+00 - 39+00

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
RT	30+00 - 38+25
LT	30+28 - 31+28
LT	32+25 - 33+25
LT	38+57 - 39+00

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
12 (EB/WB)	35+04.52	37+07.73

EXCAVATE ROCK FACE		
OFFSET	STA. TO STA.	LENGTH
RT	33+30 - 34+30	100

HFS TREATMENT		
CURVE NO.	PC STA.	PT STA.
11 (EB/WB)	33+19.32	34+53.27

REPLACE EX CRIBBING (In Front of Guardrail)		
OFFSET	STA. TO STA.	LENGTH
LT	31+00 - 32+50	150

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	30+00 - 39+00	900

REPLACE EXISTING CRIBBING		
OFFSET	STA. TO STA.	LENGTH
LT	30+00 - 31+00	100

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	30+00 - 31+00	100	-	-
LT	32+50 - 39+00	650	-	-

INSTALL GUARDRAIL - EXTRA LENGTH POSTS				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	31+00 - 32+50	150	-	-

STA. 32+75
INSTALL 44 L.F. 18" RCP
RIGHT:
INSTALL 18" SAFETY TYPE INLET
LEFT:
INSTALL END ANCHOR

STA. 30+78
EXTEND 18" RCP
LEFT:
REMOVE 4 L.F. EXISTING PIPE & HEADWALL
INSTALL 6 L.F. 18" CULVERT PIPE
INSTALL PIPE CULVERT HEADWALL

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
3	RT (EB)	30+16	CHEVRON W/REFL. PANELS ON POST
3	RT (WB)	30+16	CHEVRON W/REFL. PANELS ON POST
4	RT (EB)	30+65	CHEVRON W/REFL. PANELS ON POST
4	RT (WB)	30+65	CHEVRON W/REFL. PANELS ON POST



W1-8
18" X 24"

STA. 30+16 & 30+65
REMOVE EXISTING
WARNING SIGN

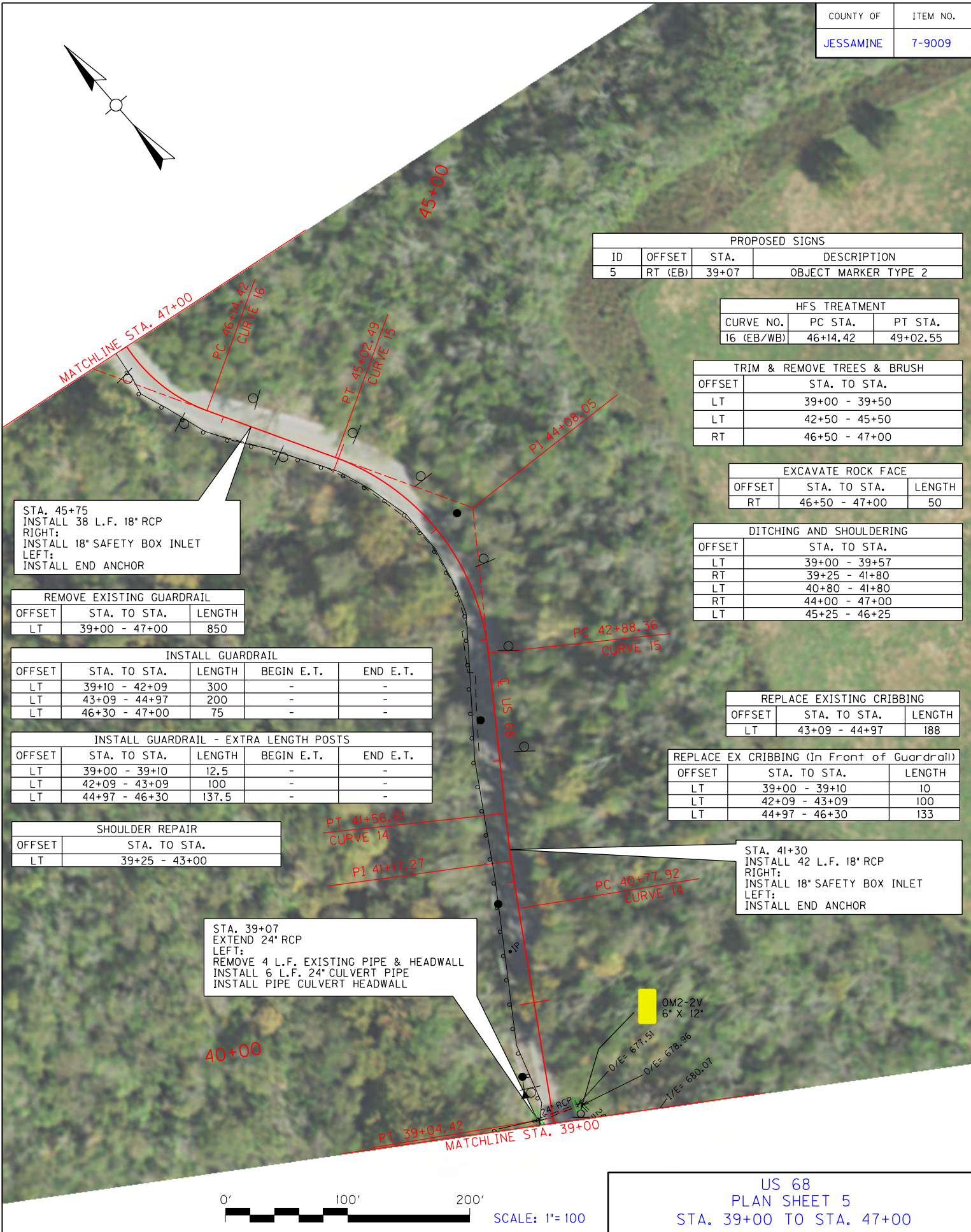
2' X 60"



SCALE: 1" = 100'

US 68
PLAN SHEET 4
STA. 30+00 TO STA. 39+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
5	RT (EB)	39+07	OBJECT MARKER TYPE 2

HFS TREATMENT		
CURVE NO.	PC STA.	PT STA.
16 (EB/WB)	46+14.42	49+02.55

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	39+00 - 39+50
LT	42+50 - 45+50
RT	46+50 - 47+00

EXCAVATE ROCK FACE		
OFFSET	STA. TO STA.	LENGTH
RT	46+50 - 47+00	50

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
LT	39+00 - 39+57
RT	39+25 - 41+80
LT	40+80 - 41+80
RT	44+00 - 47+00
LT	45+25 - 46+25

REPLACE EXISTING CRIBBING		
OFFSET	STA. TO STA.	LENGTH
LT	43+09 - 44+97	188

REPLACE EX CRIBBING (In Front of Guardrail)		
OFFSET	STA. TO STA.	LENGTH
LT	39+00 - 39+10	10
LT	42+09 - 43+09	100
LT	44+97 - 46+30	133

STA. 45+75
 INSTALL 38 L.F. 18" RCP
 RIGHT:
 INSTALL 18" SAFETY BOX INLET
 LEFT:
 INSTALL END ANCHOR

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	39+00 - 47+00	850

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	39+10 - 42+09	300	-	-
LT	43+09 - 44+97	200	-	-
LT	46+30 - 47+00	75	-	-

INSTALL GUARDRAIL - EXTRA LENGTH POSTS				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	39+00 - 39+10	12.5	-	-
LT	42+09 - 43+09	100	-	-
LT	44+97 - 46+30	137.5	-	-

SHOULDER REPAIR	
OFFSET	STA. TO STA.
LT	39+25 - 43+00

STA. 39+07
 EXTEND 24" RCP
 LEFT:
 REMOVE 4 L.F. EXISTING PIPE & HEADWALL
 INSTALL 6 L.F. 24" CULVERT PIPE
 INSTALL PIPE CULVERT HEADWALL

STA. 41+30
 INSTALL 42 L.F. 18" RCP
 RIGHT:
 INSTALL 18" SAFETY BOX INLET
 LEFT:
 INSTALL END ANCHOR

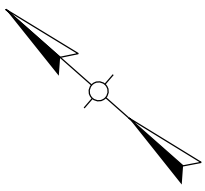
OM2-2V
 6" X 12"

0/E= 677.51
 0/E= 678.96
 1/E= 680.07



US 68
 PLAN SHEET 5
 STA. 39+00 TO STA. 47+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	47+00 - 49+00
LT	51+00 - 55+00
RT	51+00 - 56+00

REPLACE EXISTING CRIBBING		
OFFSET	STA. TO STA.	LENGTH
LT	49+27 - 51+86	259
LT	52+83 - 54+11	128

SHOULDER REPAIR	
OFFSET	STA. TO STA.
LT	48+00 - 49+00

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
17 (EB)	51+08.23	54+13.93

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	47+00 - 48+06	112.5
LT	48+24 - 56+00	775

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	47+00 - 48+06	62.5	-	TYPE 1
LT	48+24 - 56+00	775	T.S. 1	-

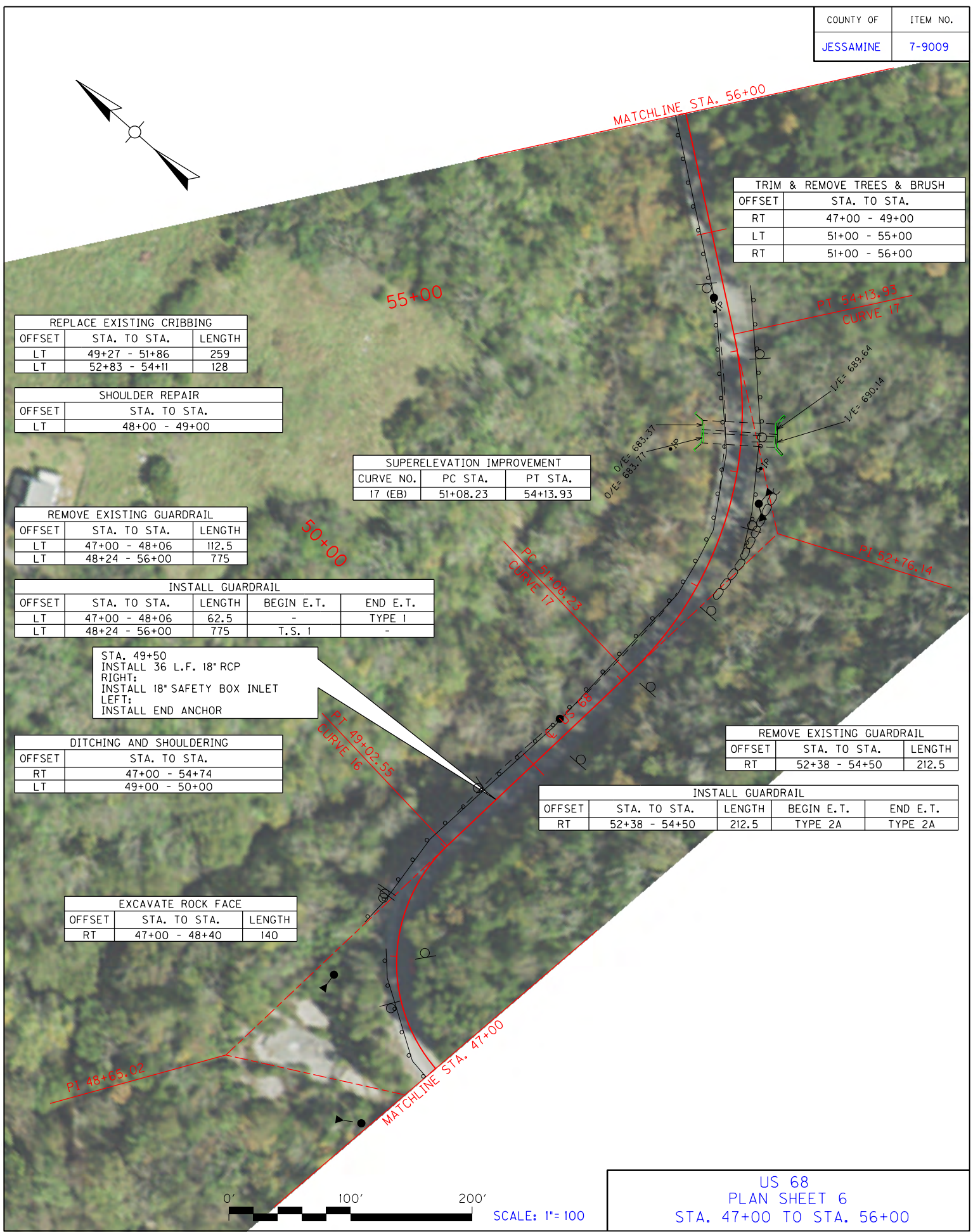
STA. 49+50
 INSTALL 36 L.F. 18" RCP
 RIGHT:
 INSTALL 18" SAFETY BOX INLET
 LEFT:
 INSTALL END ANCHOR

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
RT	47+00 - 54+74
LT	49+00 - 50+00

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
RT	52+38 - 54+50	212.5

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
RT	52+38 - 54+50	212.5	TYPE 2A	TYPE 2A

EXCAVATE ROCK FACE		
OFFSET	STA. TO STA.	LENGTH
RT	47+00 - 48+40	140



US 68
 PLAN SHEET 6
 STA. 47+00 TO STA. 56+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
6	RT (EB)	58+79	OBJECT MARKER TYPE 2
7	RT (EB)	59+81	RIGHT/LEFT CHEVRON
7	RT (WB)	59+81	RIGHT/LEFT CHEVRON
8	RT (EB)	63+40	OBJECT MARKER TYPE 2

PAVEMENT EDGE REPAIR	
OFFSET	STA. TO STA.
RT	58+74 - 58+84
LT	59+01 - 59+77
LT	60+17 - 60+33
LT	64+40 - 64+60

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	56+00 - 65+00
LT	59+00 - 61+00

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
RT	57+00 - 65+00
LT	58+29 - 59+29
LT	60+50 - 61+50

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
18 (EB)	59+04.14	60+71.80

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	56+00 - 61+93	600
LT	62+17 - 65+00	287.5

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	56+00 - 61+93	603.75	-	T.S. 1
LT	62+17 - 64+54	248.75	T.S. 1	-

INSTALL GUARDRAIL - EXTRA LENGTH POSTS				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	64+54 - 65+00	50	-	-

REPLACE EXISTING CRIBBING		
OFFSET	STA. TO STA.	LENGTH
LT	58+67 - 59+39	72
LT	64+02 - 64+54	52

REPLACE EX CRIBBING (In Front of Guardrail)		
OFFSET	STA. TO STA.	LENGTH
LT	64+54 - 65+00	46

STA. 61+00
INSTALL 38 L.F. 18" RCP
RIGHT:
INSTALL 18" SAFETY BOX INLET
LEFT:
INSTALL END ANCHOR

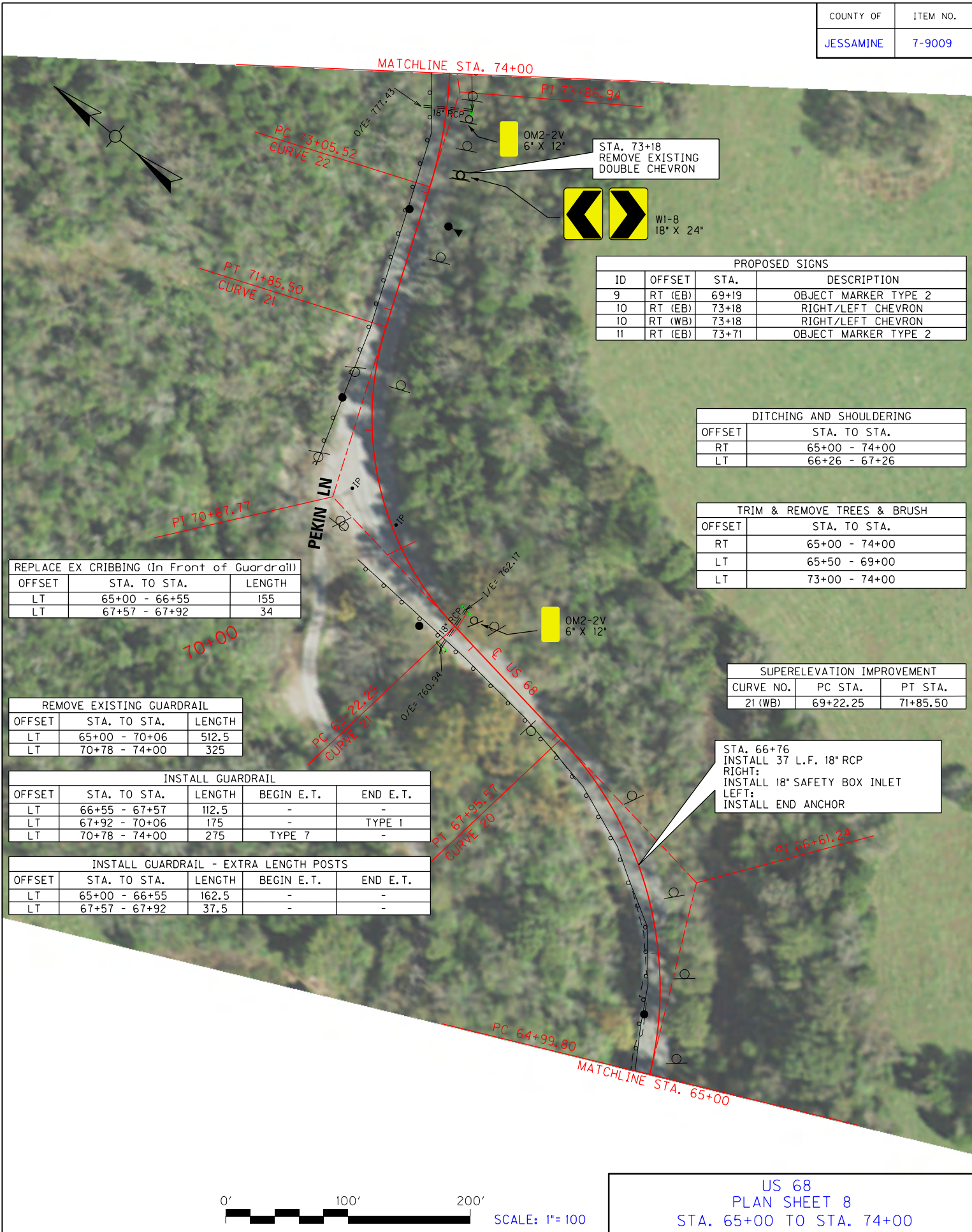
STA. 59+81
REMOVE EXISTING
DOUBLE CHEVRON

STA. 58+79
EXTEND 18" RCP
LEFT:
REMOVE 4 L.F. EXISTING PIPE
INSTALL 6 L.F. 18" CULVERT PIPE
INSTALL PIPE CULVERT HEADWALL



US 68
PLAN SHEET 7
STA. 56+00 TO STA. 65+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
9	RT (EB)	69+19	OBJECT MARKER TYPE 2
10	RT (EB)	73+18	RIGHT/LEFT CHEVRON
10	RT (WB)	73+18	RIGHT/LEFT CHEVRON
11	RT (EB)	73+71	OBJECT MARKER TYPE 2

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
RT	65+00 - 74+00
LT	66+26 - 67+26

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	65+00 - 74+00
LT	65+50 - 69+00
LT	73+00 - 74+00

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
21 (WB)	69+22.25	71+85.50

REPLACE EX CRIBBING (In Front of Guardrail)		
OFFSET	STA. TO STA.	LENGTH
LT	65+00 - 66+55	155
LT	67+57 - 67+92	34

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	65+00 - 70+06	512.5
LT	70+78 - 74+00	325

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	66+55 - 67+57	112.5	-	-
LT	67+92 - 70+06	175	-	TYPE I
LT	70+78 - 74+00	275	TYPE 7	-

INSTALL GUARDRAIL - EXTRA LENGTH POSTS				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	65+00 - 66+55	162.5	-	-
LT	67+57 - 67+92	37.5	-	-

STA. 66+76
INSTALL 37 L.F. 18" RCP
RIGHT:
INSTALL 18" SAFETY BOX INLET
LEFT:
INSTALL END ANCHOR



US 68
PLAN SHEET 8
STA. 65+00 TO STA. 74+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	74+00 - 76+12	212
LT	76+39 - 77+96	162.5
LT	78+25 - 79+54	137.5

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	74+00 - 76+12	162.5	-	TYPE I
LT	76+39 - 77+96	132.5	TYPE 4A	*
LT	78+25 - 79+54	98.75	*	TYPE I

*TIE INTO EXISTING TYPE 7 END TREATMENTS ON PEKIN PIKE

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
24 (EB)	79+58.98	82+36.01

INSTALL CRIBBING		
OFFSET	STA. TO STA.	LENGTH
LT	80+50 - 81+25	75

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
12	LT (WB)	81+25	OBJECT MARKER TYPE 2
13	RT (EB)	81+41	OBJECT MARKER TYPE 2

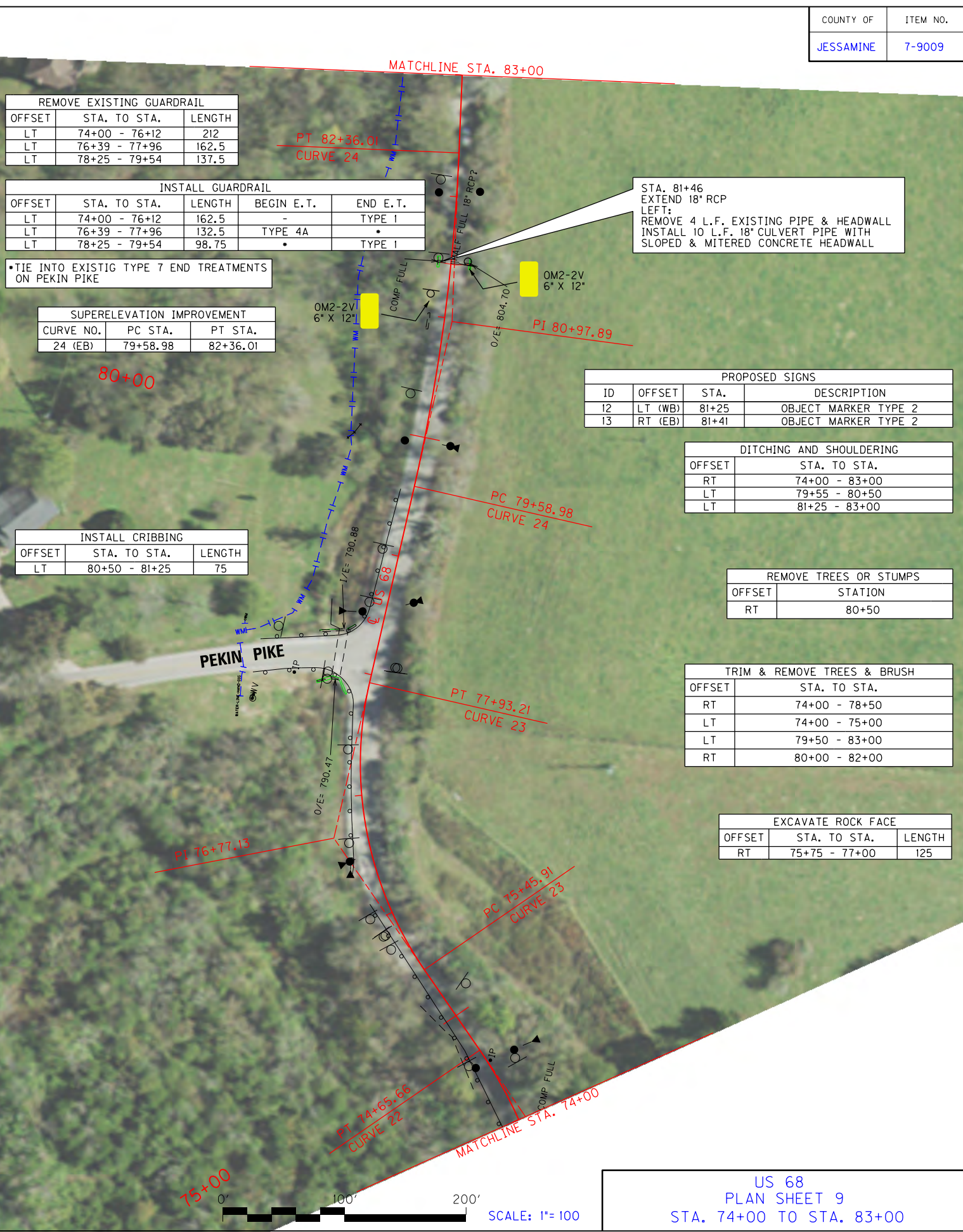
DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
RT	74+00 - 83+00
LT	79+55 - 80+50
LT	81+25 - 83+00

REMOVE TREES OR STUMPS	
OFFSET	STATION
RT	80+50

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	74+00 - 78+50
LT	74+00 - 75+00
LT	79+50 - 83+00
RT	80+00 - 82+00

EXCAVATE ROCK FACE		
OFFSET	STA. TO STA.	LENGTH
RT	75+75 - 77+00	125

STA. 81+46
EXTEND 18" RCP
LEFT:
REMOVE 4 L.F. EXISTING PIPE & HEADWALL
INSTALL 10 L.F. 18" CULVERT PIPE WITH
SLOPED & MITERED CONCRETE HEADWALL



US 68
PLAN SHEET 9
STA. 74+00 TO STA. 83+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

MATCHLINE STA. 92+00

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
14	RT (EB)	86+24	OBJECT MARKER TYPE 2
15	RT (EB)	89+38	OBJECT MARKER TYPE 2
16	LT (WB)	89+62	OBJECT MARKER TYPE 2
17	LT (EB)	89+65	NO PASSING ZONE

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
RT	83+00 - 92+00
LT	85+00 - 92+00

REPLACE EXISTING CRIBBING		
OFFSET	STA. TO STA.	LENGTH
RT	88+91 - 89+42	51

PAVEMENT EDGE REPAIR	
OFFSET	STA. TO STA.
LT	89+40 - 89+52

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	86+30 - 87+70
LT	87+00 - 92+00
RT	89+50 - 92+00

STA. 89+65
REMOVE EXISTING
NO PASSING ZONE



OM2-2V
6" X 12"

OM2-2V
6" X 12"

STA. 89+38
REMOVE EXISTING
OBJECT MARKER

STA. 86+29
EXTEND 18" RCP
LEFT:
REMOVE 4 L.F. EXISTING PIPE & HEADWALL
INSTALL 9 L.F. 18" CULVERT PIPE WITH
SLOPED & MITERED CONCRETE HEADWALL

OM2-2V
6" X 12"

85+00

MATCHLINE STA. 83+00



SCALE: 1"= 100'

US 68
PLAN SHEET 10
STA. 83+00 TO STA. 92+00



COUNTY OF	ITEM NO.
JESSAMINE	7-9009

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
18	RT (WB)	92+50	NO PASSING ZONE

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
LT	92+00 - 101+00
RT	92+00 - 92+50
RT	95+00 - 101+00

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	92+00 - 93+50
RT	92+00 - 92+50



US 68
 PLAN SHEET 11
 STA. 92+00 TO STA. 101+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

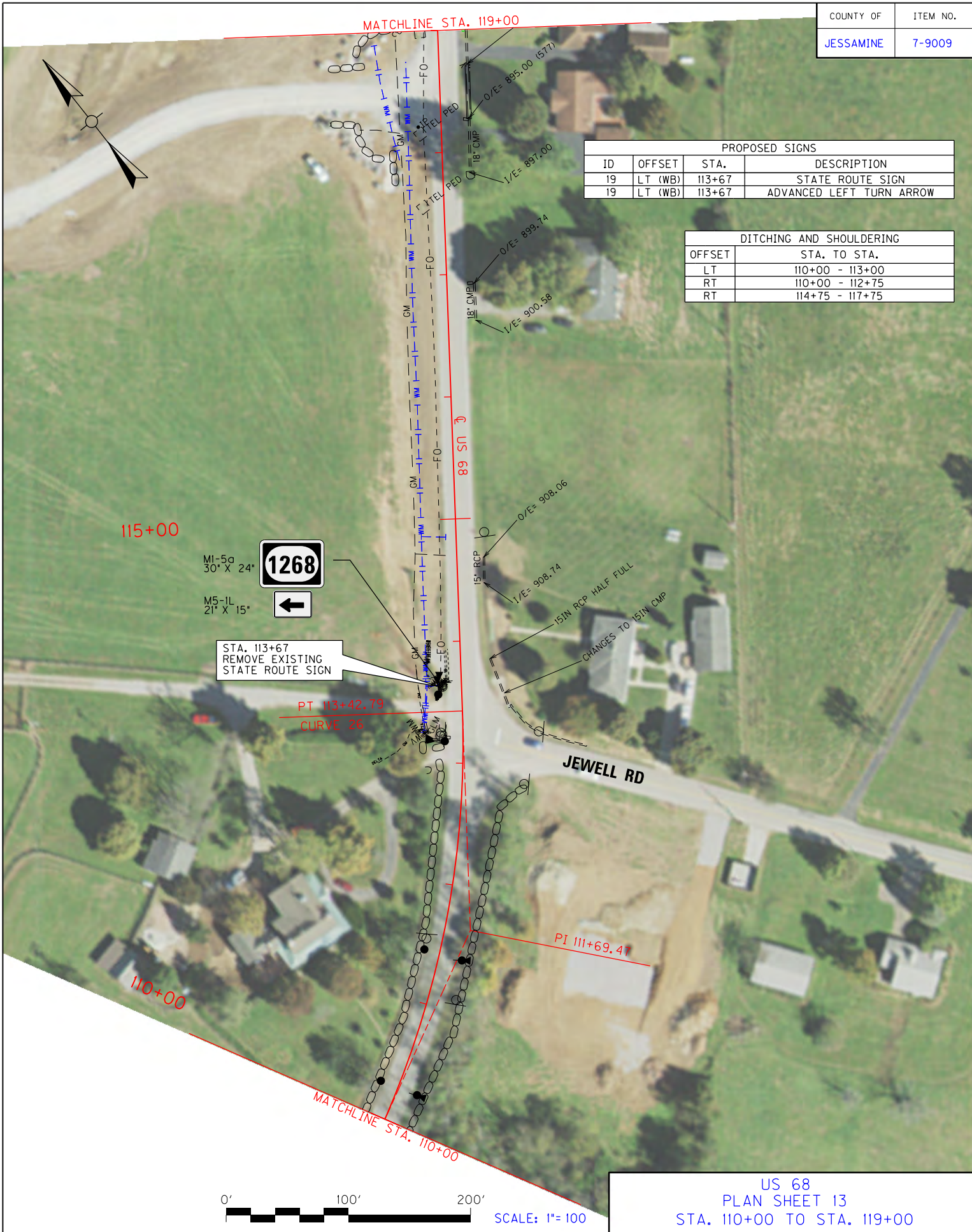


DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
LT	101+00 - 110+00
RT	101+00 - 110+00

STA. 103+15
 EXTEND 18" RCP
 RIGHT:
 REMOVE 4 L.F. EXISTING PIPE & HEADWALL
 INSTALL 7 L.F. 18" CULVERT PIPE WITH
 SLOPED & MITERED CONCRETE HEADWALL
 LEFT:
 REMOVE 4 L.F. EXISTING PIPE & HEADWALL
 INSTALL 4 L.F. 18" CULVERT PIPE
 INSTALL 18" SAFETY BOX INLET



US 68
 PLAN SHEET 12
 STA. 101+00 TO STA. 110+00



COUNTY OF	ITEM NO.
JESSAMINE	7-9009

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
19	LT (WB)	113+67	STATE ROUTE SIGN
19	LT (WB)	113+67	ADVANCED LEFT TURN ARROW

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
LT	110+00 - 113+00
RT	110+00 - 112+75
RT	114+75 - 117+75

STA. 113+67
REMOVE EXISTING
STATE ROUTE SIGN

M1-5a
30" X 24"
M5-1L
21" X 15"



PT 113+42.79
CURVE 26

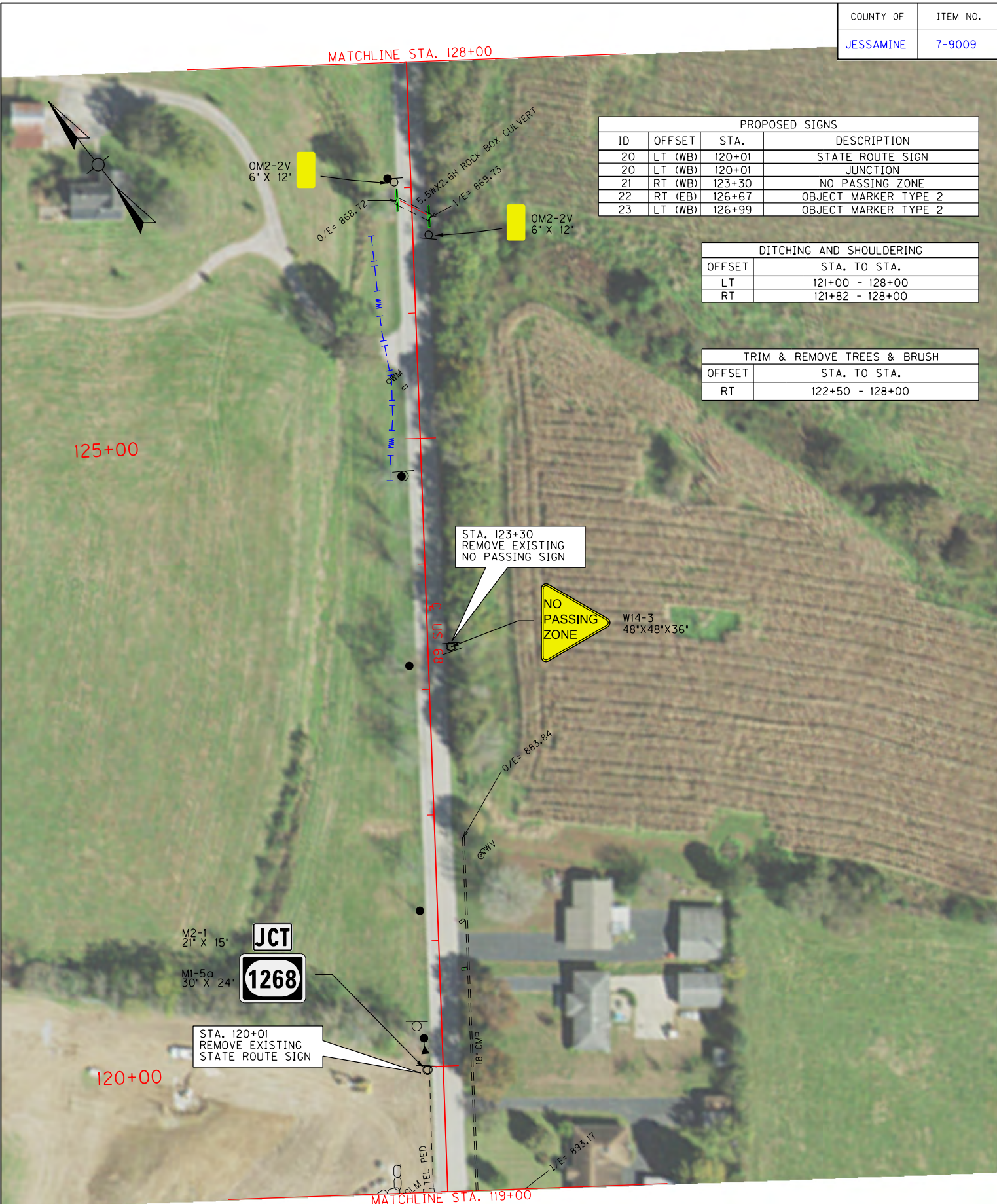
JEWELL RD

PI 111+69.47



US 68
PLAN SHEET 13
STA. 110+00 TO STA. 119+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
20	LT (WB)	120+01	STATE ROUTE SIGN
20	LT (WB)	120+01	JUNCTION
21	RT (WB)	123+30	NO PASSING ZONE
22	RT (EB)	126+67	OBJECT MARKER TYPE 2
23	LT (WB)	126+99	OBJECT MARKER TYPE 2

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
LT	121+00 - 128+00
RT	121+82 - 128+00

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	122+50 - 128+00

STA. 123+30
 REMOVE EXISTING
 NO PASSING SIGN



W14-3
 48"X48"X36"

STA. 120+01
 REMOVE EXISTING
 STATE ROUTE SIGN



SCALE: 1"= 100'

US 68
 PLAN SHEET 14
 STA. 119+00 TO STA. 128+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
LT	128+00 - 137+00
RT	128+00 - 137+00

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	128+00 - 133+50
LT	133+30 - 133+75



US 68
 PLAN SHEET 15
 STA. 128+00 TO STA. 137+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

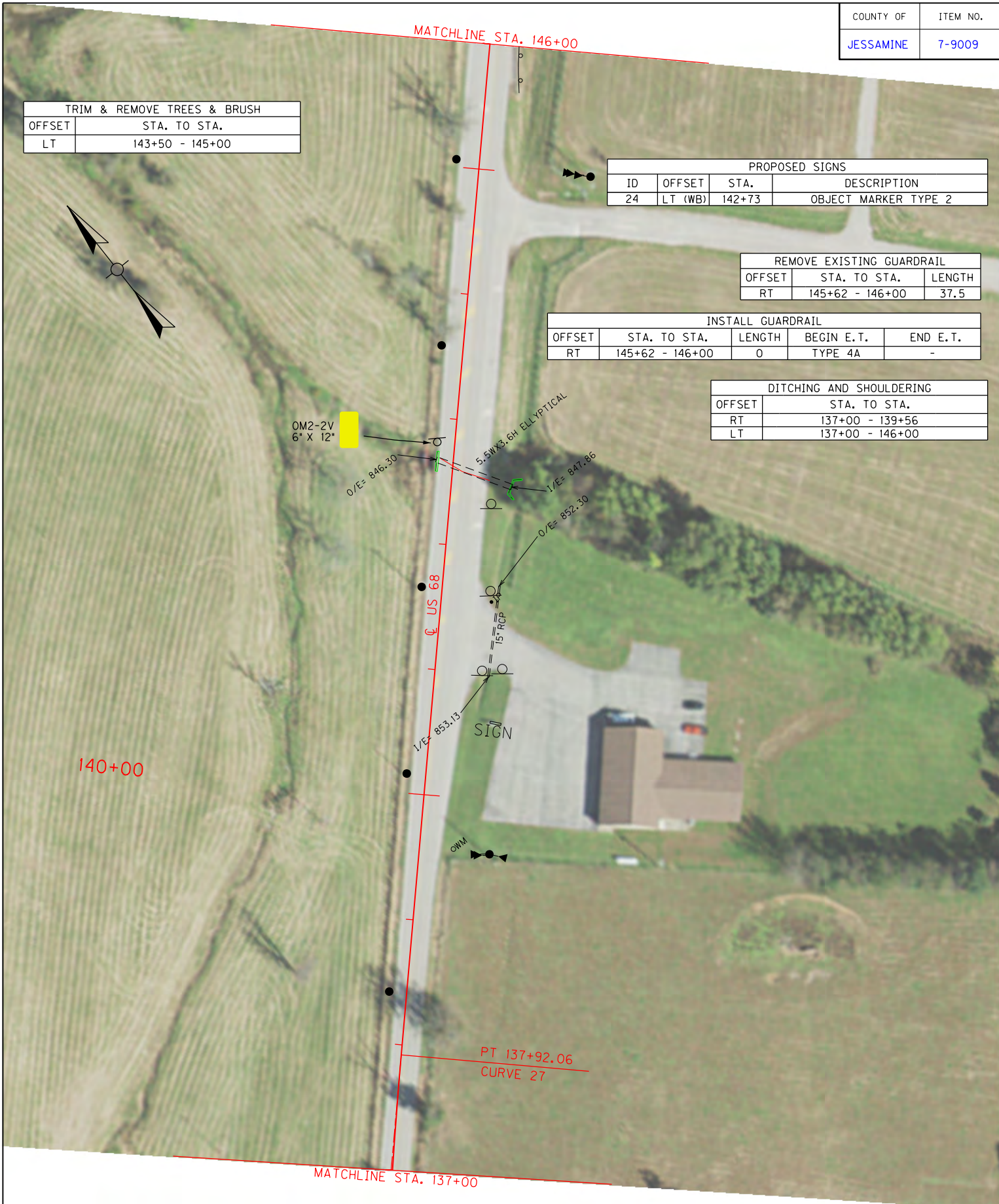
TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	143+50 - 145+00

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
24	LT (WB)	142+73	OBJECT MARKER TYPE 2

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
RT	145+62 - 146+00	37.5

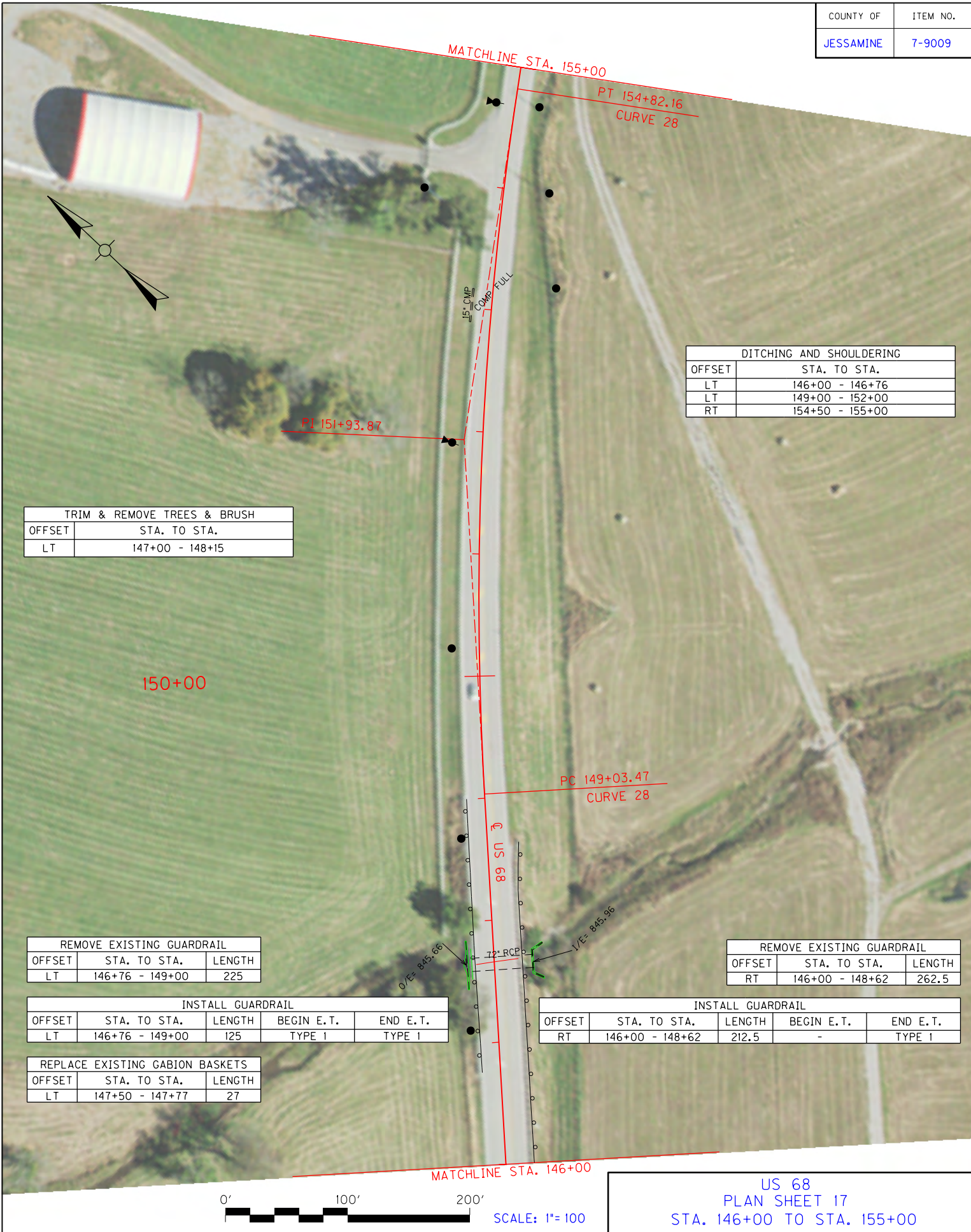
INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
RT	145+62 - 146+00	0	TYPE 4A	-

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
RT	137+00 - 139+56
LT	137+00 - 146+00



US 68
 PLAN SHEET 16
 STA. 137+00 TO STA. 146+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
LT	146+00 - 146+76
LT	149+00 - 152+00
RT	154+50 - 155+00

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	147+00 - 148+15

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	146+76 - 149+00	225

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	146+76 - 149+00	125	TYPE I	TYPE I

REPLACE EXISTING CABION BASKETS		
OFFSET	STA. TO STA.	LENGTH
LT	147+50 - 147+77	27

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
RT	146+00 - 148+62	262.5

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
RT	146+00 - 148+62	212.5	-	TYPE I



US 68
PLAN SHEET 17
STA. 146+00 TO STA. 155+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
RT	155+00 - 164+00



US 68
 PLAN SHEET 18
 STA. 155+00 TO STA. 164+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
RT	164+00 - 164+25
RT	165+00 - 173+00
LT	166+00 - 170+00
LT	171+25 - 173+00

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	165+00 - 168+00

STA. 166+95
 EXTEND 18" RCP
 RIGHT:
 REMOVE 4 L.F. EXISTING PIPE & HEADWALL
 INSTALL 7 L.F. 18" CULVERT PIPE WITH
 SLOPED & MITERED CONCRETE HEADWALL
 LEFT:
 REMOVE 4 L.F. EXISTING PIPE & HEADWALL
 INSTALL 9 L.F. 18" CULVERT PIPE WITH
 SLOPED & MITERED CONCRETE HEADWALL



US 68
 PLAN SHEET 19
 STA. 164+00 TO STA. 173+00



COUNTY OF	ITEM NO.
JESSAMINE	7-9009

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
25	RT (EB)	181+25	SIDE ROAD LEFT
25	RT (EB)	181+25	ADVANCED STREET NAME PLAQUE

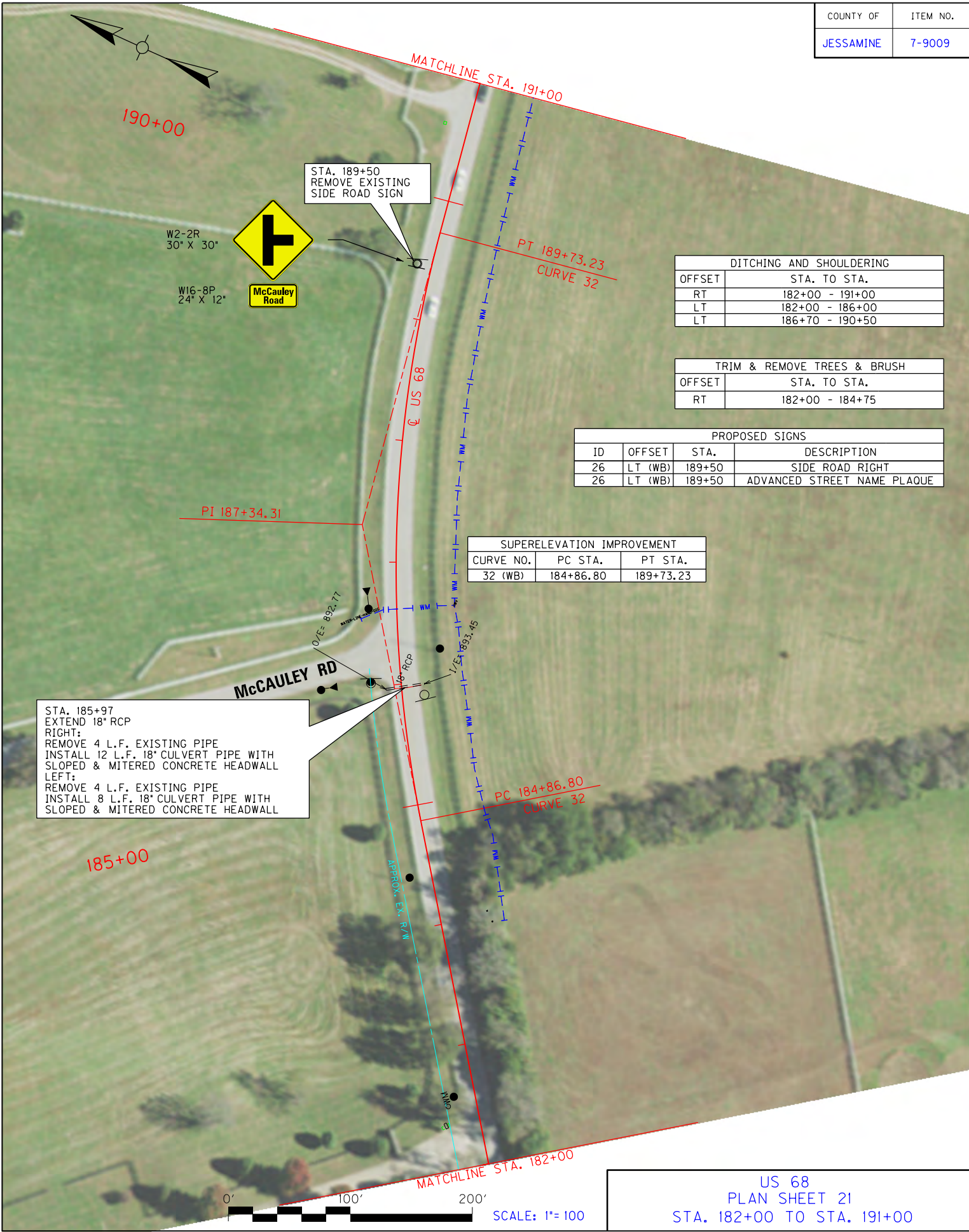
DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
RT	173+00 - 182+00
LT	173+00 - 182+00

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	174+50 - 176+40
RT	179+75 - 182+00



US 68
PLAN SHEET 20
STA. 173+00 TO STA. 182+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
RT	182+00 - 191+00
LT	182+00 - 186+00
LT	186+70 - 190+50

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	182+00 - 184+75

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
26	LT (WB)	189+50	SIDE ROAD RIGHT
26	LT (WB)	189+50	ADVANCED STREET NAME PLAQUE

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
32 (WB)	184+86.80	189+73.23

STA. 185+97
EXTEND 18" RCP
RIGHT:
REMOVE 4 L.F. EXISTING PIPE
INSTALL 12 L.F. 18" CULVERT PIPE WITH
SLOPED & MITERED CONCRETE HEADWALL
LEFT:
REMOVE 4 L.F. EXISTING PIPE
INSTALL 8 L.F. 18" CULVERT PIPE WITH
SLOPED & MITERED CONCRETE HEADWALL

US 68
PLAN SHEET 21
STA. 182+00 TO STA. 191+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



STA. 198+77
 EXTEND 24" RCP
 RIGHT:
 REMOVE 4 L.F. EXISTING PIPE & HEADWALL
 INSTALL 10 L.F. 24" CULVERT PIPE WITH
 SLOPED & MITERED CONCRETE HEADWALL
 LEFT:
 REMOVE 4 L.F. EXISTING PIPE & HEADWALL
 INSTALL 5 L.F. 24" CULVERT PIPE WITH
 SLOPED & MITERED CONCRETE HEADWALL

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
RT	191+00 - 194+00
LT	198+27 - 200+00
RT	198+27 - 199+27



US 68
 PLAN SHEET 22
 STA. 191+00 TO STA. 200+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
27	RT (EB)	207+03	OBJECT MARKER TYPE 2
28	LT (WB)	207+22	OBJECT MARKER TYPE 2

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
LT	200+00 - 200+50
LT	206+00 - 209+00

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	205+75 - 206+25



US 68
 PLAN SHEET 23
 STA. 200+00 TO STA. 209+00

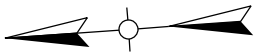


COUNTY OF	ITEM NO.
JESSAMINE	7-9009

DITCHING AND SHOULDERING	
OFFSET	STA. TO STA.
LT	209+00 - 218+00



US 68
 PLAN SHEET 24
 STA. 209+00 TO STA. 218+00



COUNTY OF	ITEM NO.
JESSAMINE	7-9009



SCALE: 1"= 100'

US 68
 PLAN SHEET 25
 STA. 218+00 TO STA. 227+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



US 68
PLAN SHEET 26
STA. 227+00 TO STA. 236+00

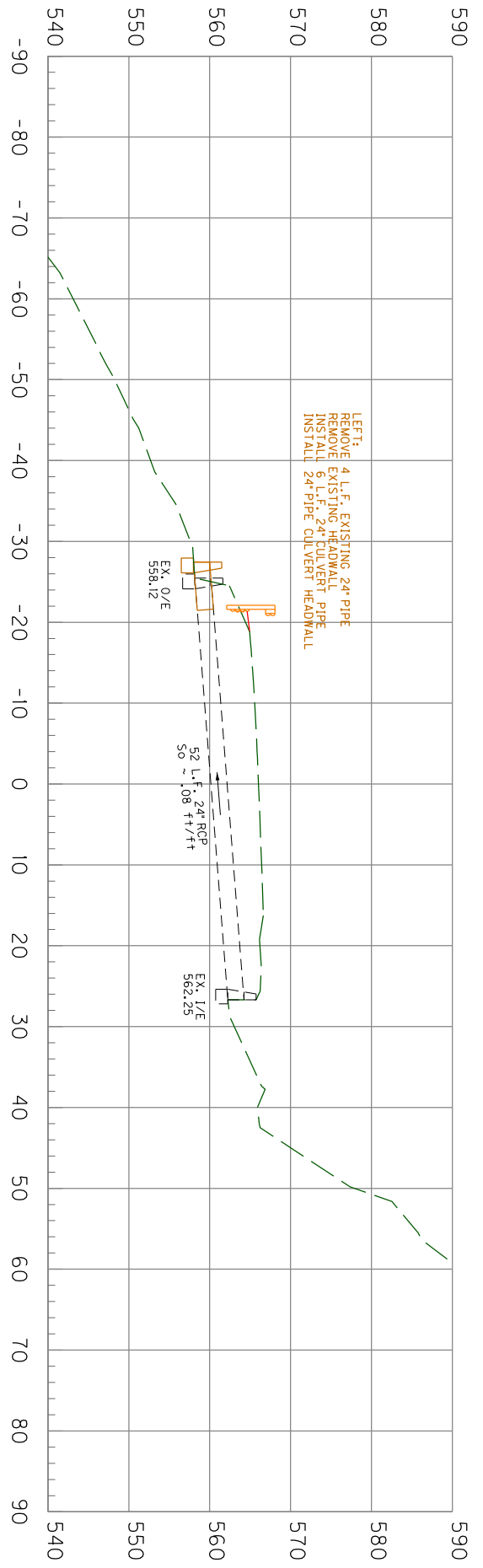
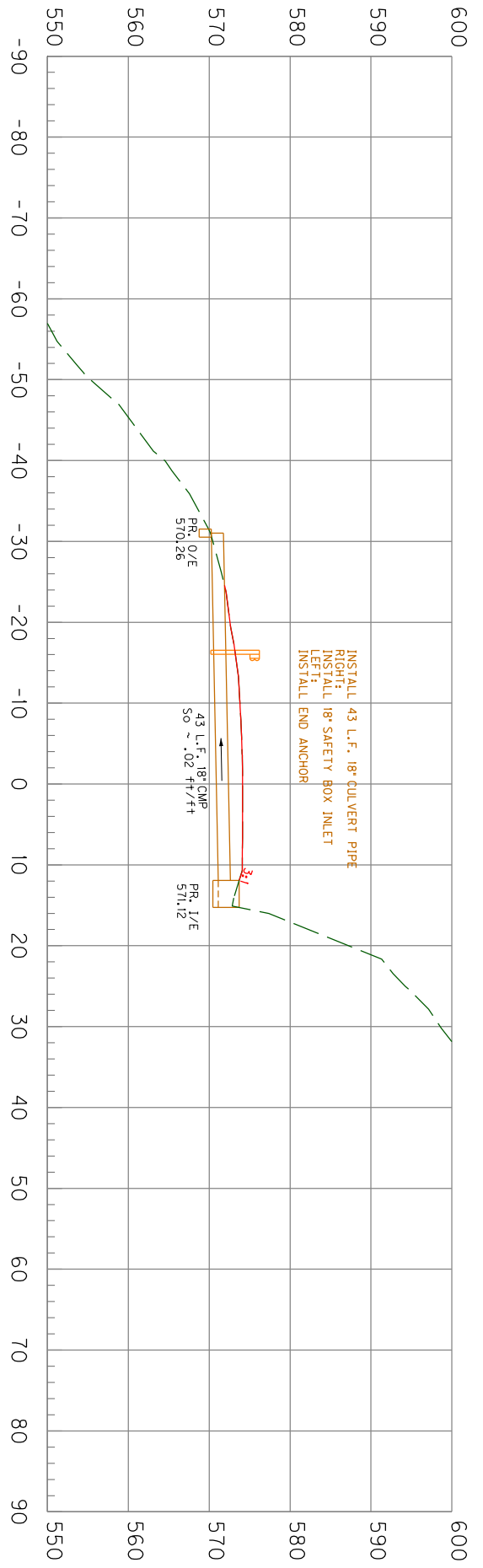


COUNTY OF	ITEM NO.
JESSAMINE	7-9009



US 68
PLAN SHEET 28
STA. 245+00 TO END PROJECT

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00

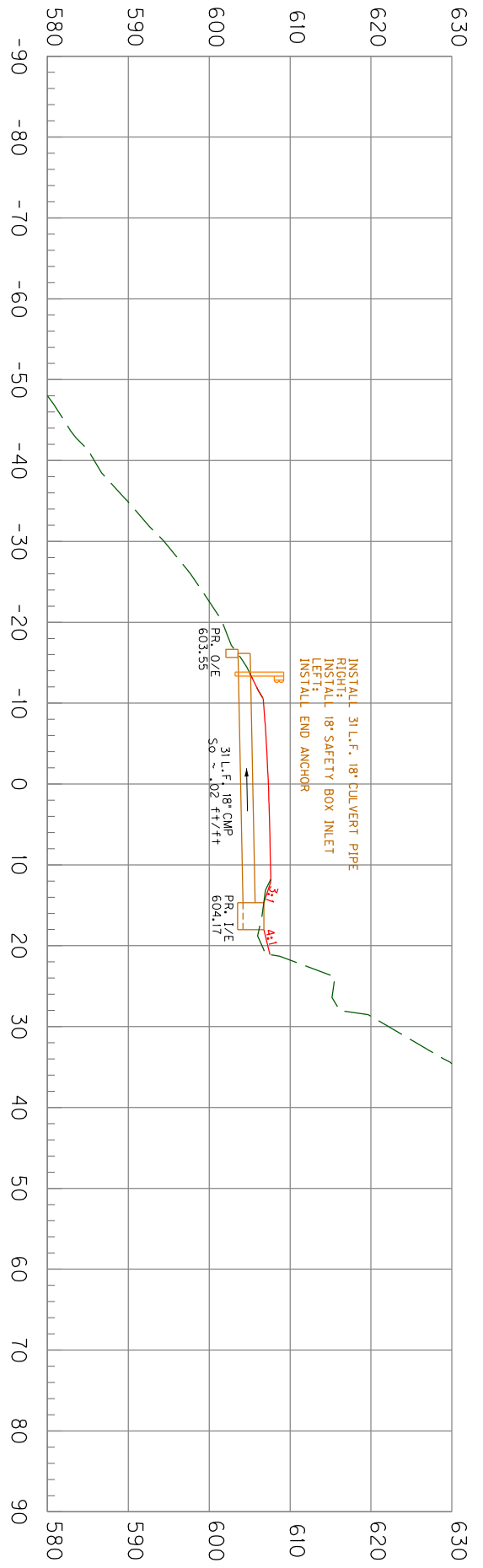


7+27
48° SKEW RT.

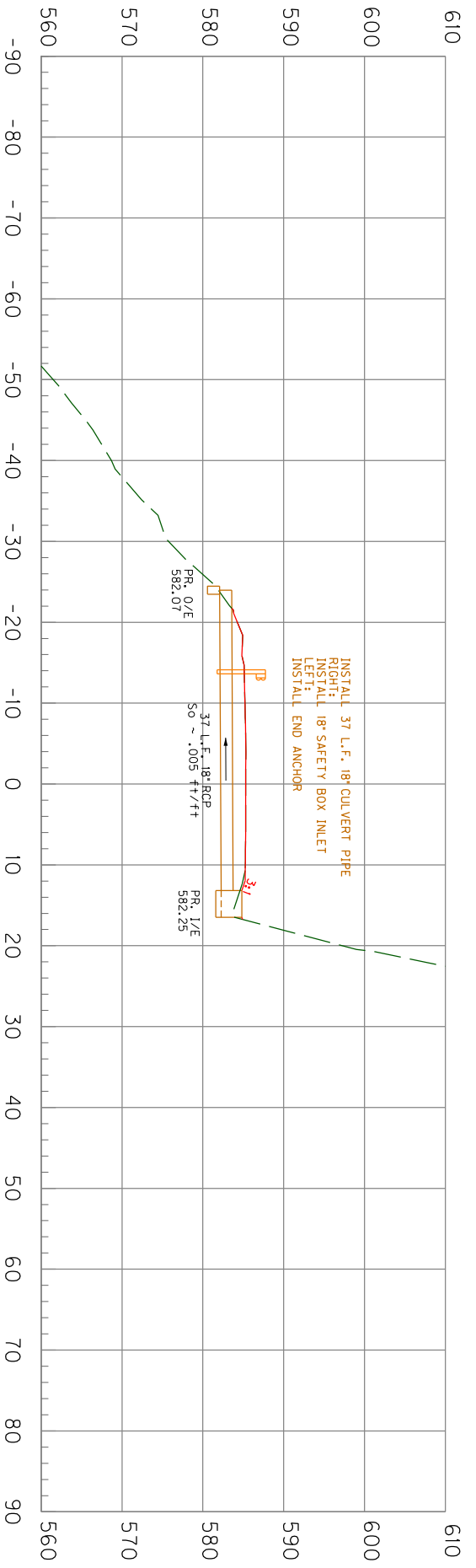
SCALE: 1" = 20'

US 68
PIPE SECTIONS

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



19+50
0° SKEW

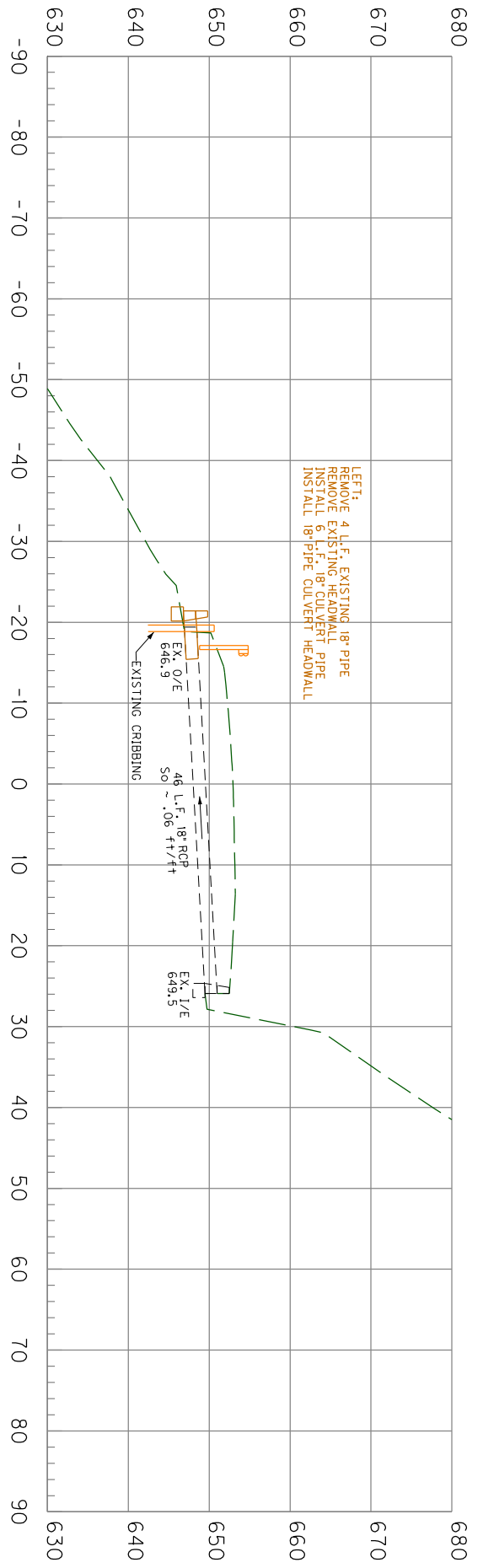


14+50
0° SKEW

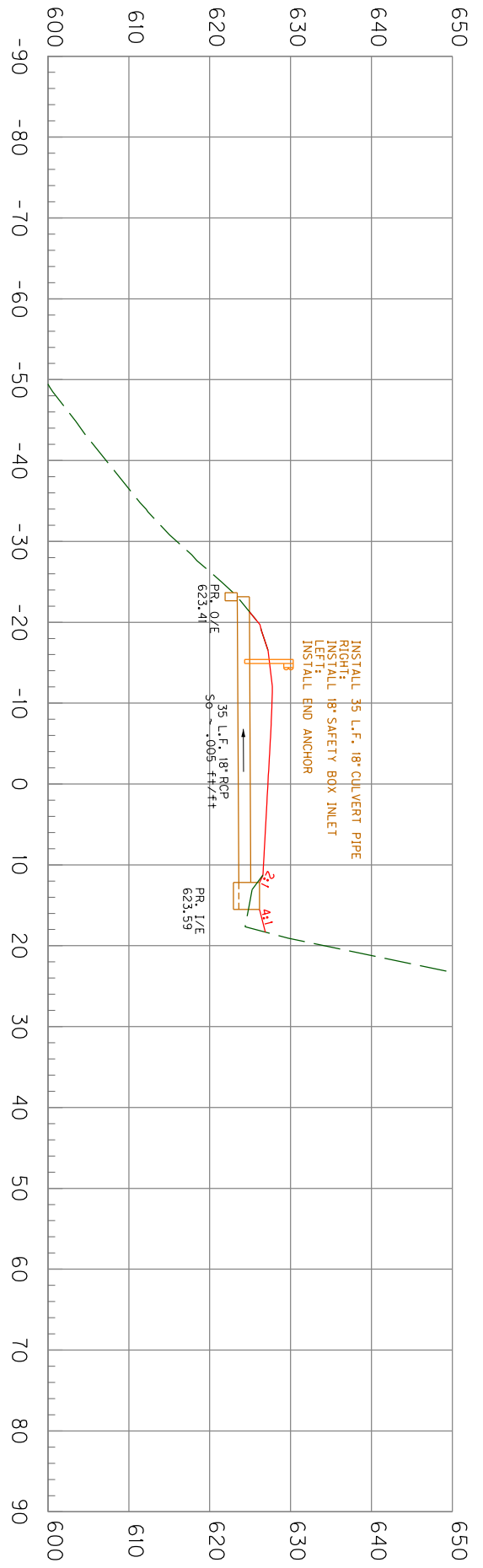
SCALE: 1" = 20'

US 68
PIPE SECTIONS

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



30+78
15° SKEW RT.

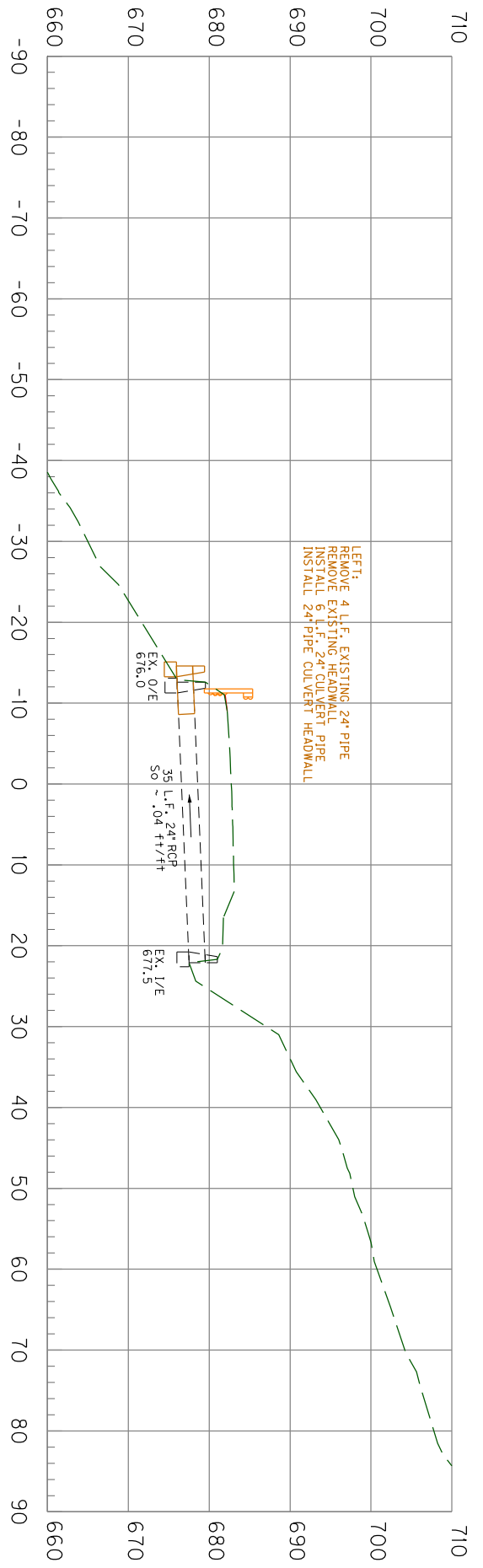


23+50
0° SKEW

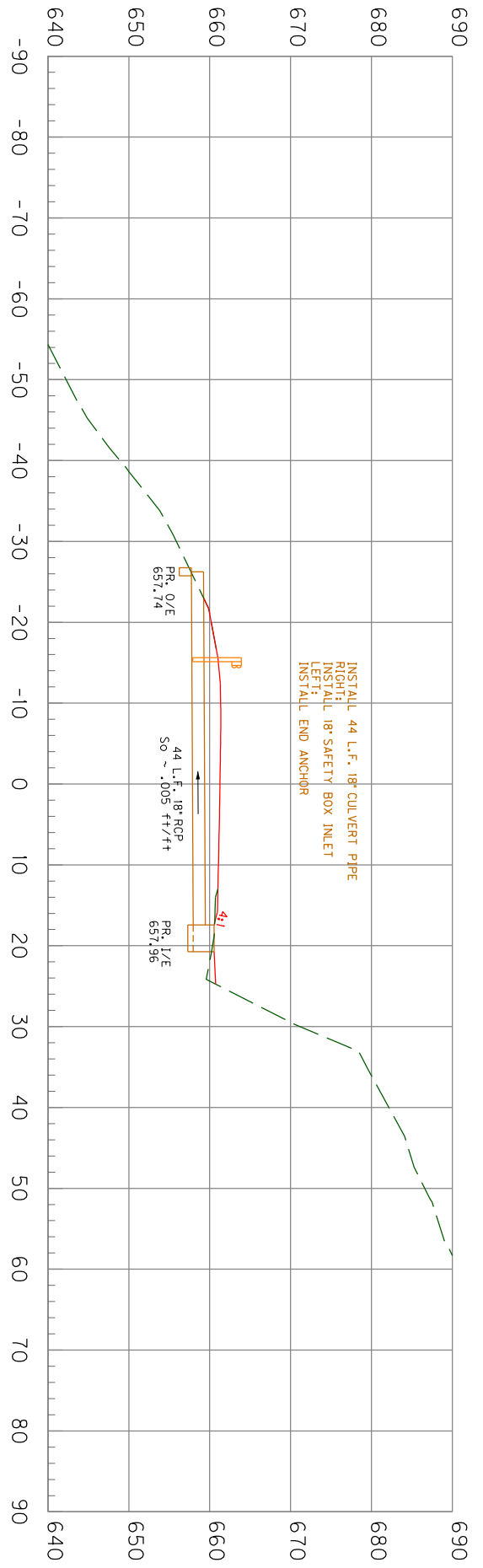
SCALE: 1" = 20'

US 68
PIPE SECTIONS

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



39+07
11° SKEW RT.

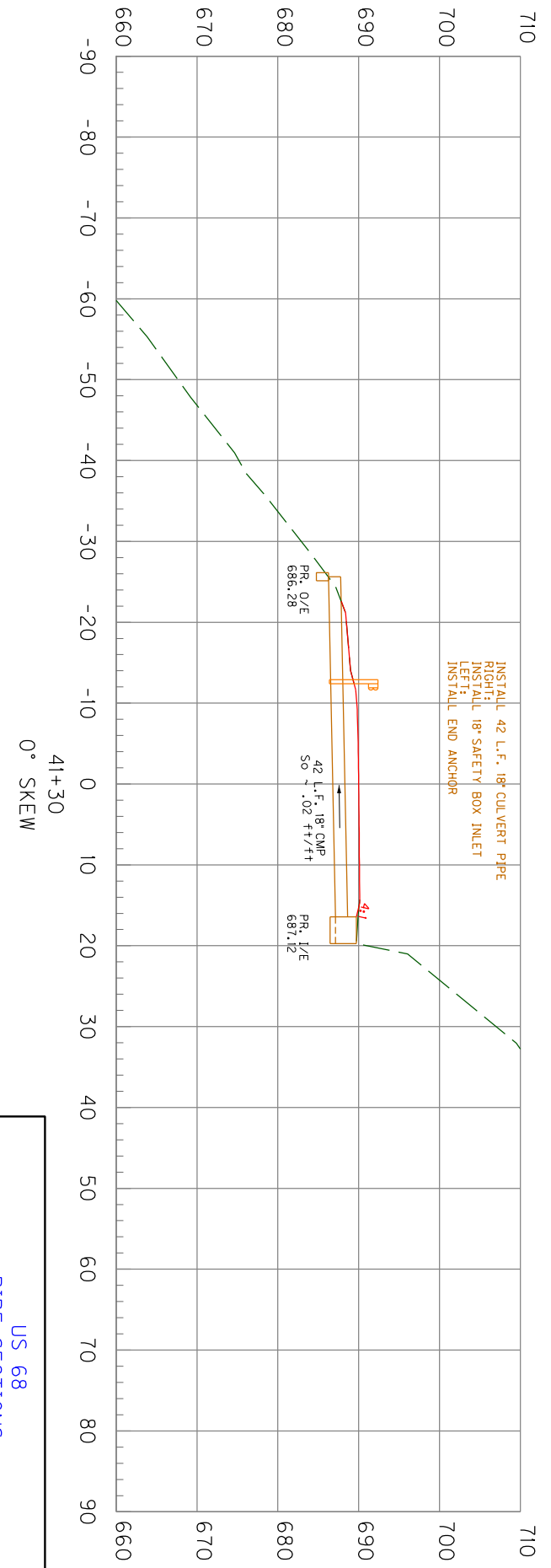
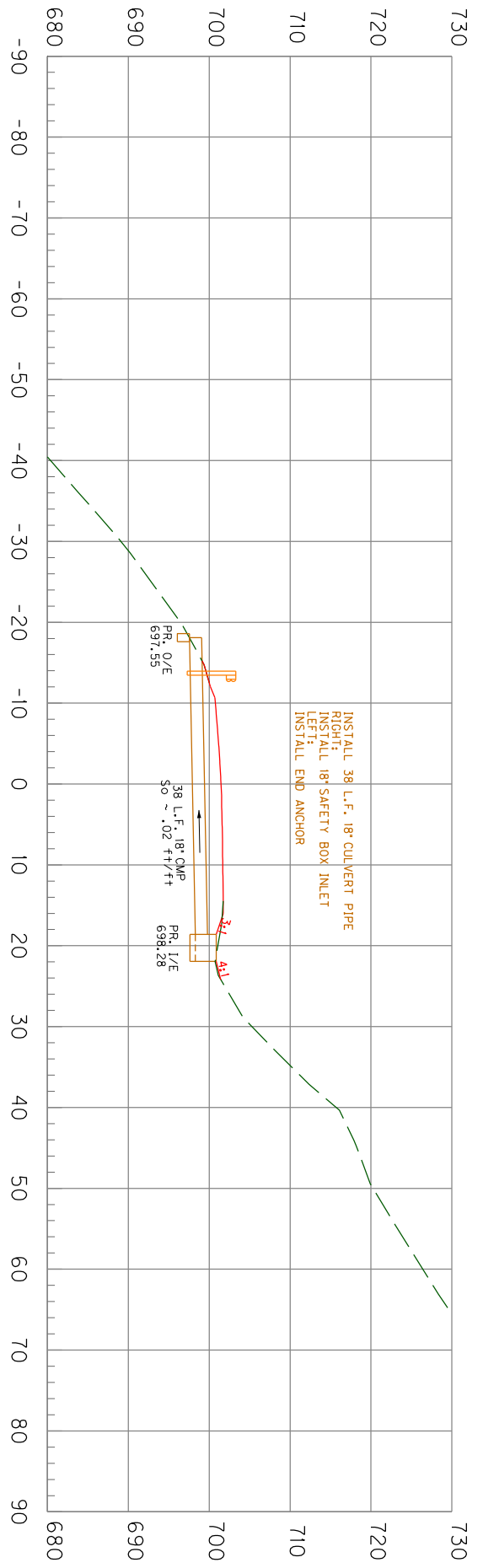


32+75
0° SKEW

SCALE: 1" = 20'

US 68
PIPE SECTIONS

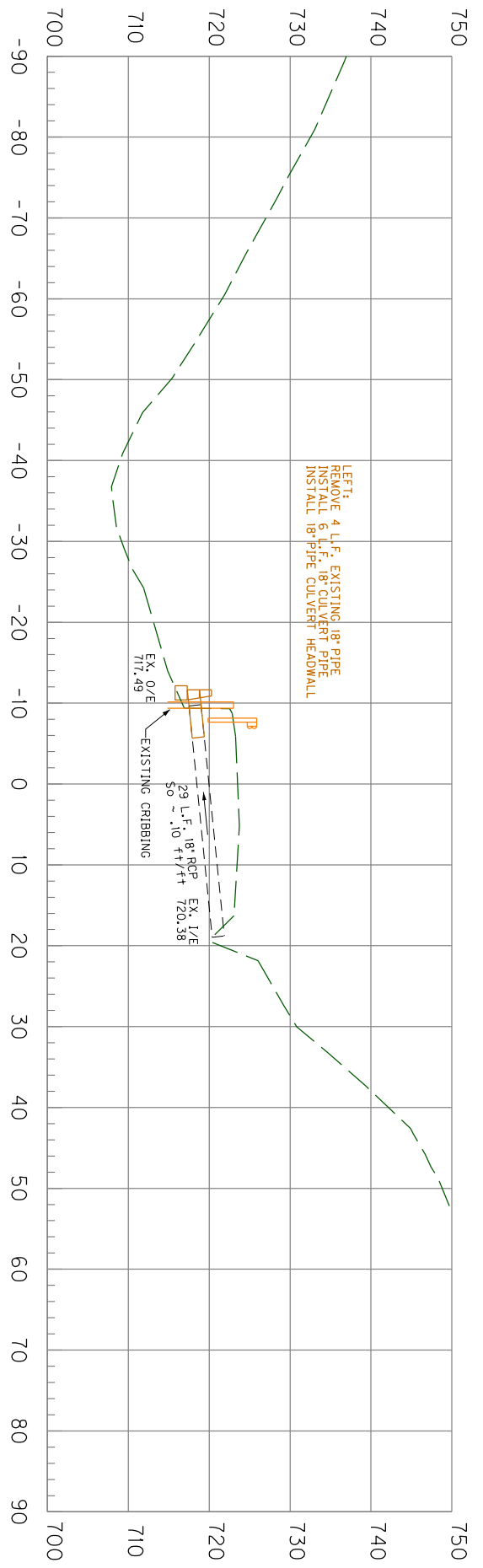
COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



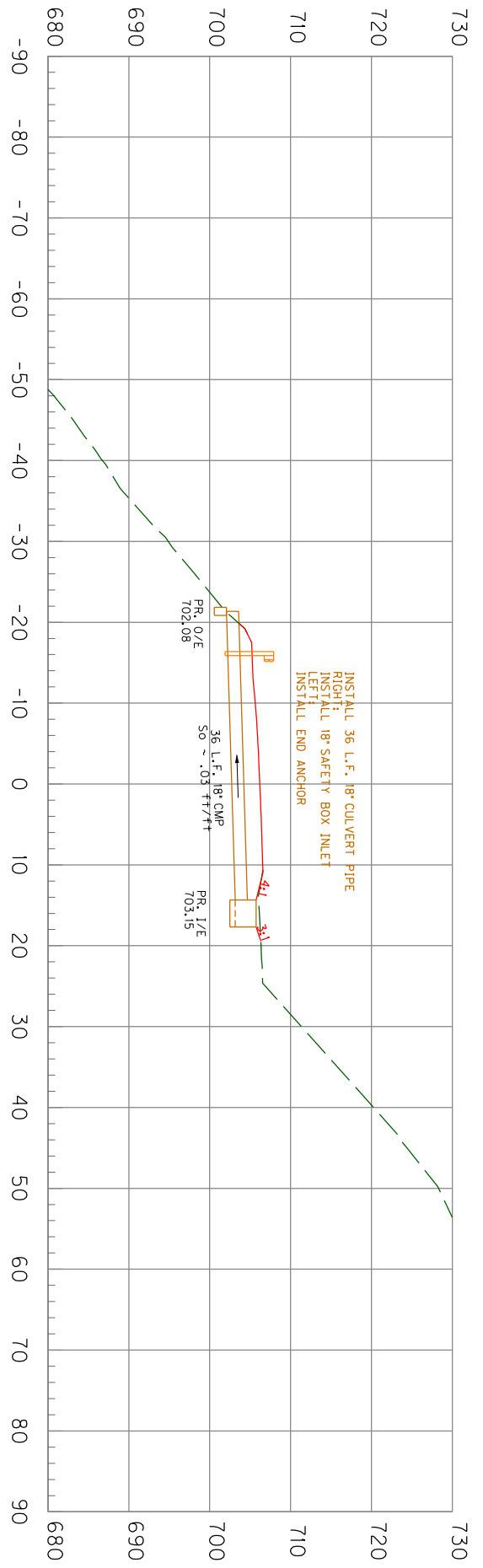
SCALE: 1" = 20'

US 68
PIPE SECTIONS

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



58+79
0° SKEW

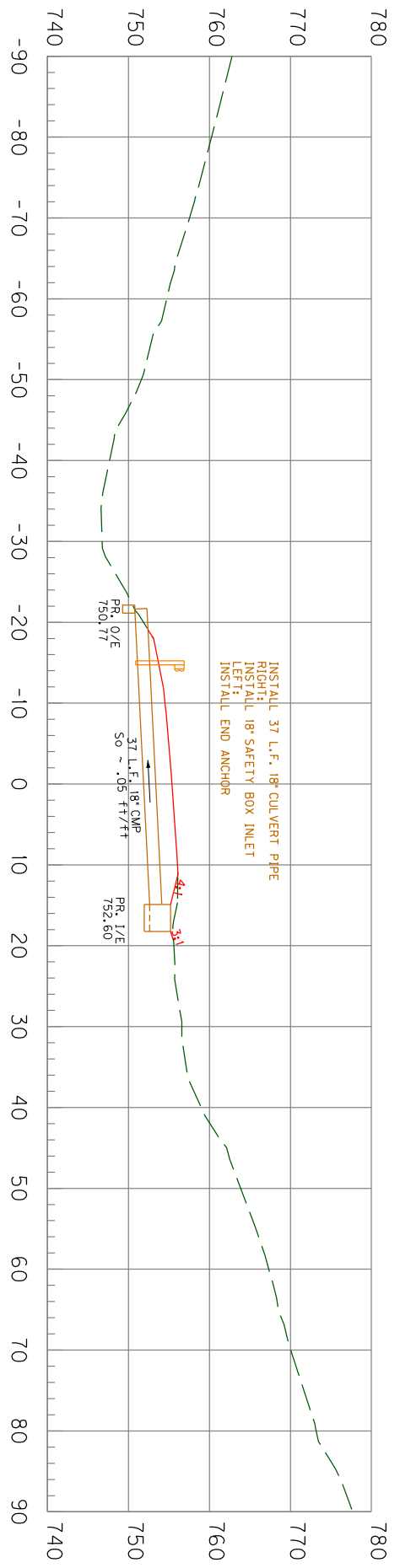


49+50
0° SKEW

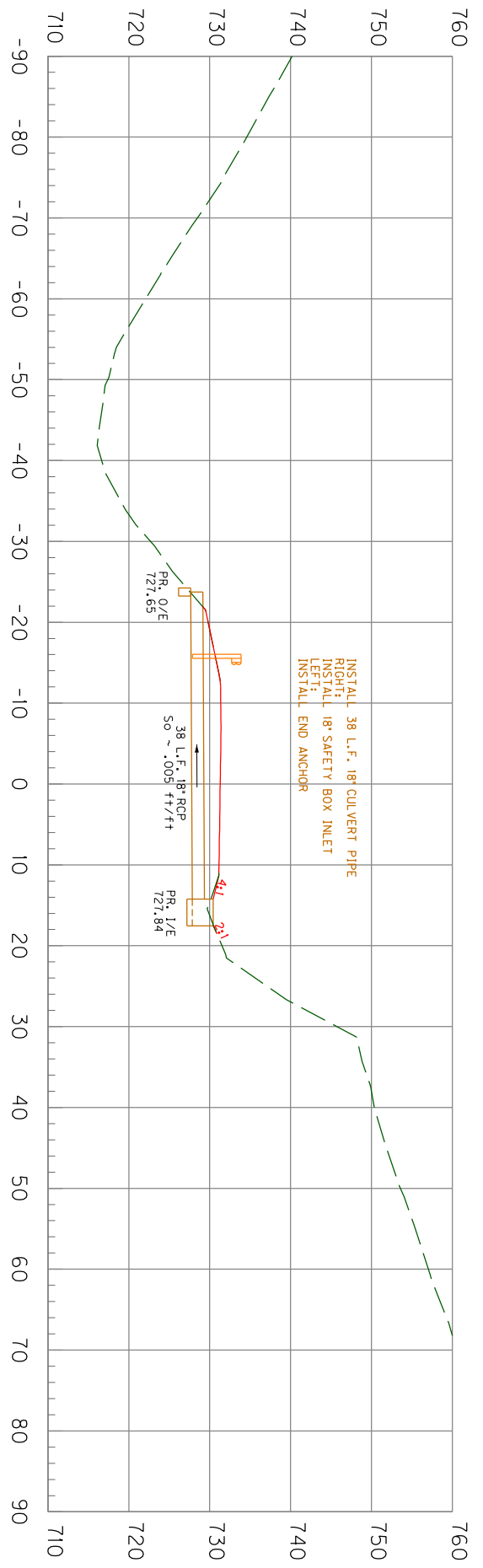
SCALE: 1" = 20'

US 68
PIPE SECTIONS

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



66+76
0° SKEW

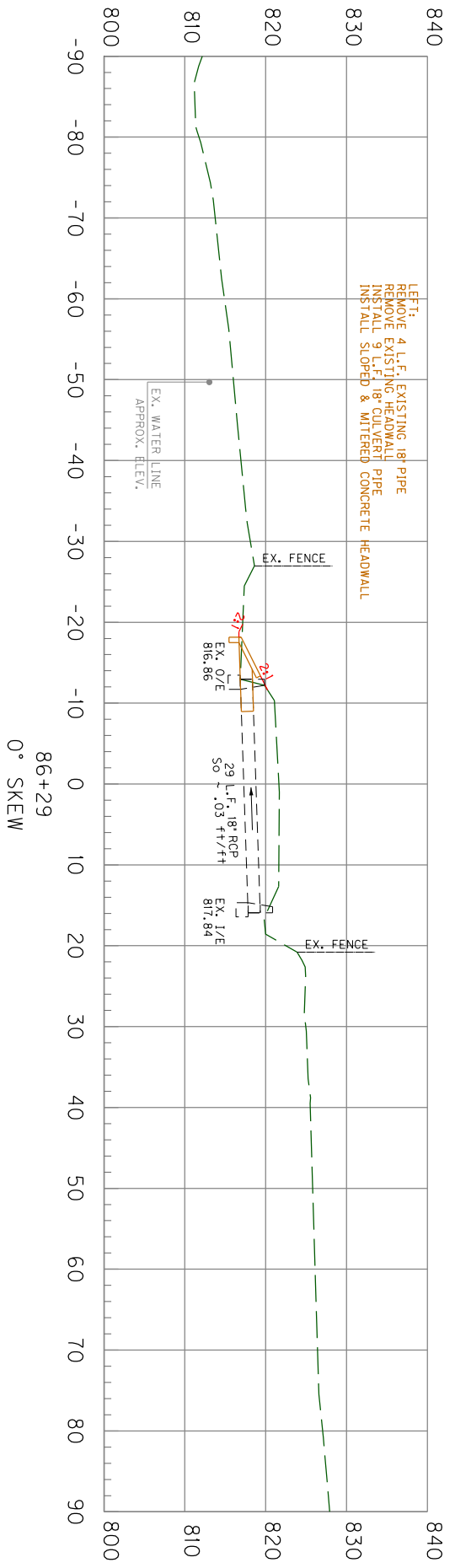


61+00
0° SKEW

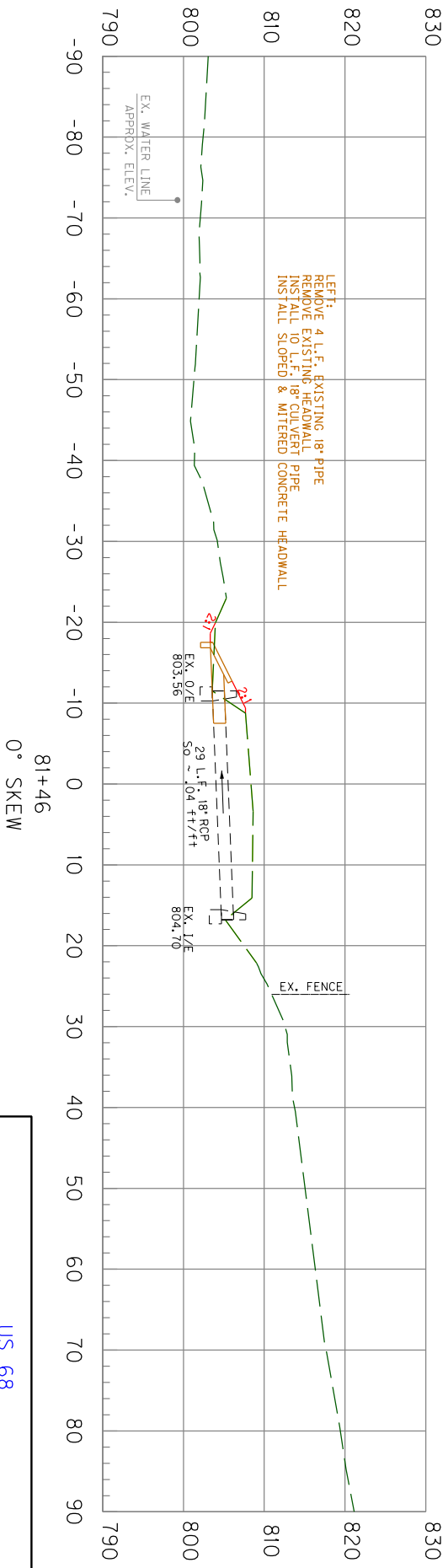
SCALE: 1" = 20'

US 68
PIPE SECTIONS

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



86+29
0° SKEW

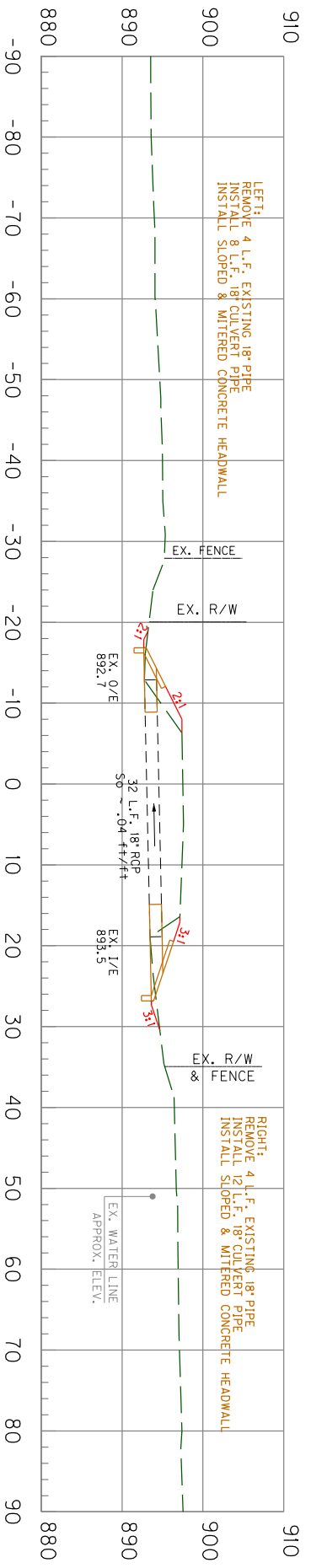
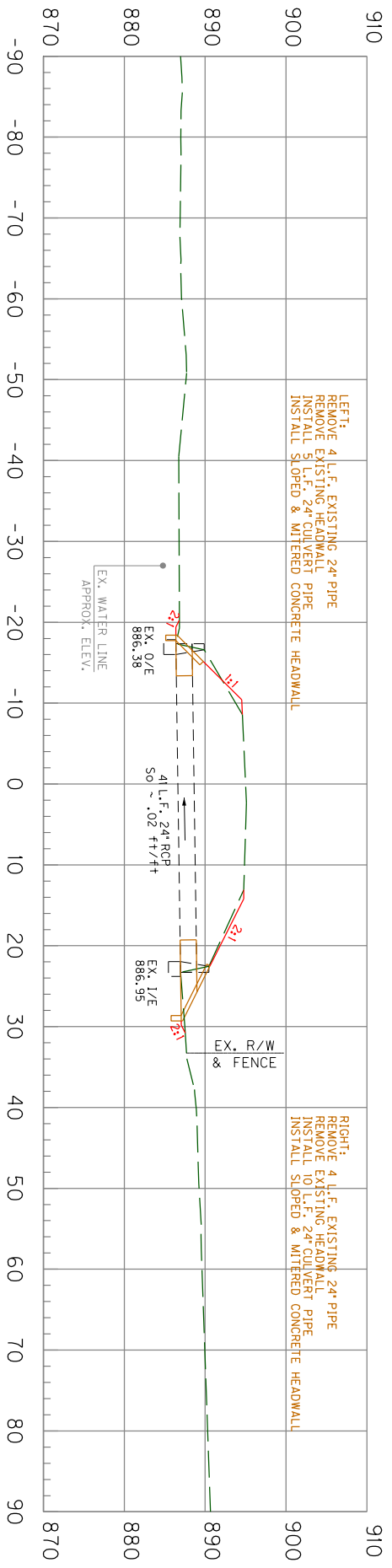


81+46
0° SKEW

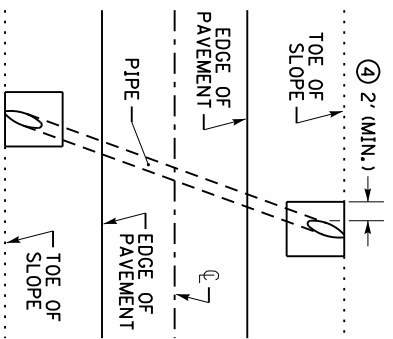
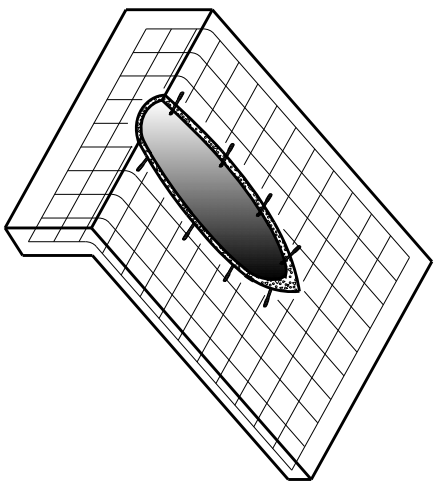
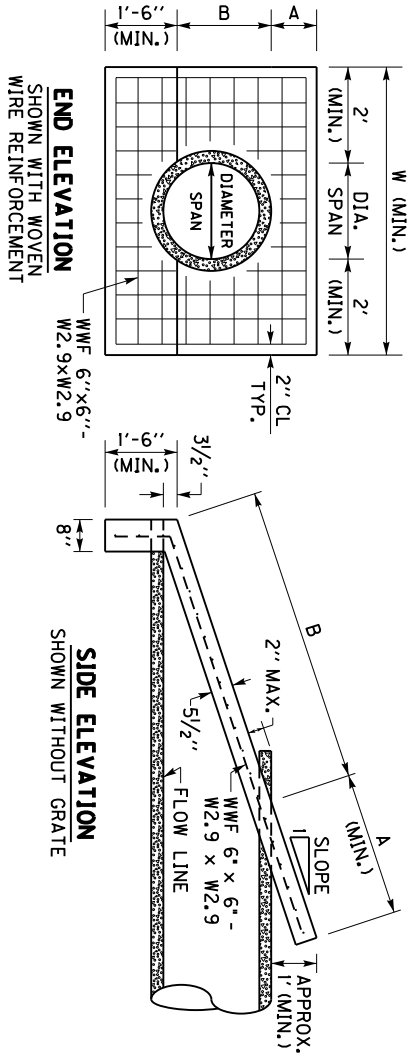
SCALE: 1" = 20'

US 68
PIPE SECTIONS

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



US 68
PIPE SECTIONS
SCALE: 1" = 20'



ISOMETRIC VIEW
SHOWN WITH WOVEN
WIRE REINFORCEMENT
AND WEDGE ANCHORS

PLAN VIEW
SHOWN WHEN THE
PIPE IS ON A SKEW

DIMENSIONS AND CONCRETE QUANTITIES (FOR PIPE WITH SKEW = 0°)

PIPE SIZE	3:1 SLOPE			4:1 SLOPE			6:1 SLOPE		
	A	B	W	A	B	W	A	B	W
15"	3'-7 1/2"	5'-3"	0.74	4'-8 3/4"	5'-3"	0.93	6'-11 3/4"	5'-3"	1.29
18"	4'-5 3/4"	5'-6"	0.85	5'-10"	5'-6"	1.05	8'-7 1/4"	5'-6"	1.48
24"	6'-2 1/2"	6'-0"	1.05	8'-1"	6'-0"	1.32	11'-11"	6'-0"	1.87
30"	7'-10 3/4"	6'-6"	1.43	10'-3 3/4"	6'-6"	1.80	15'-2 1/2"	6'-6"	2.28

••DIMENSIONS AND CONCRETE QUANTITIES ARE APPROXIMATE AND LISTED FOR INFORMATIONAL PURPOSES ONLY••

BID ITEM AND UNIT TO BID: 24575ES610 HEADWALL (SLOPED & MITERED CONCRETE-FOR 1/2 INCH PIPE) - EACH

COUNTY OF	TOWN NO.	SHEET NO.
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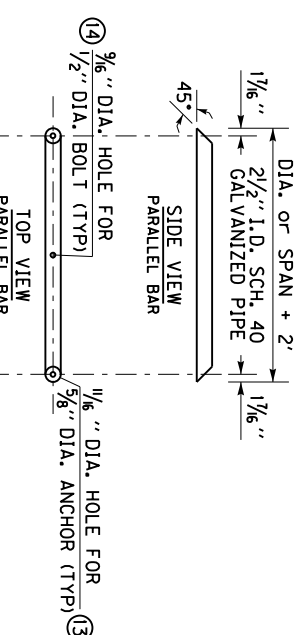
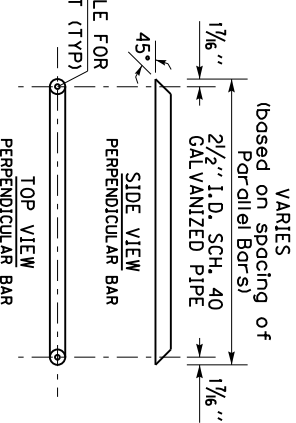
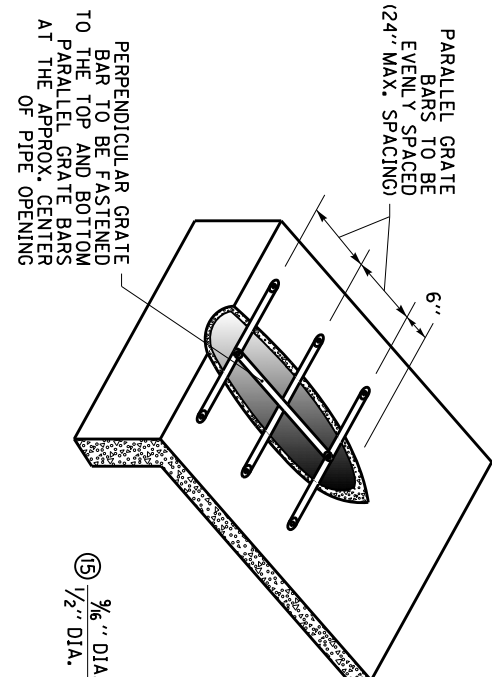
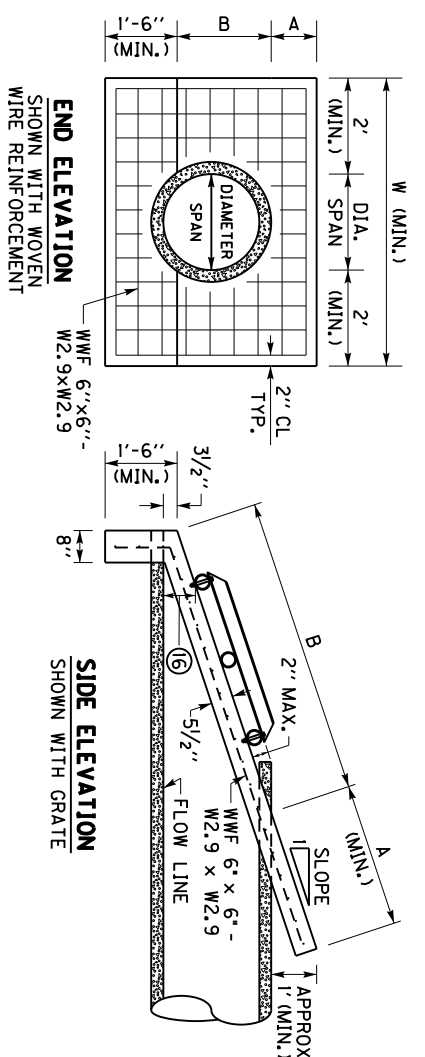
NOTES

- FOR PIPES THAT RECEIVE THE SLOPED & MITERED CONCRETE HEADWALL, THE PIPE LENGTH SHALL BE MEASURED TO THE FURTHEST POINT ALONG THE MITERED END OF THE PIPE.
- THE EMBANKMENT FILL MATERIAL IS TO BE PLACED, COMPACTED, AND GRADDED AROUND THE PIPE BEFORE THE CONCRETE SLOPE PAVING IS PLACED. THE INTENT IS FOR THE SLOPED & MITERED HEADWALL TO MATCH THE FINAL EMBANKMENT SLOPE.
- 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.
- WHEN THE PIPE IS ON A SKEW, INSTALL THE HEADWALL AND MITER THE PIPE SO THAT THE CONCRETE SLOPE PAVING IS PERPENDICULAR TO THE ROADWAY. FOR HEADWALLS ON SKEWED PIPES, THE HEADWALL WIDTH, 'W', SHALL BE WIDENED, AS NEEDED, SO THAT THE OUTSIDE EDGE OF THE CONCRETE SLOPE PAVING IS A MINIMUM OF 2" FROM THE OUTER MOST EDGE OF THE PIPE.
- THE DIMENSION 'A' IS BASED ON THE FINAL GRADED SLOPE. THE DIMENSION 'B' IS BASED ON CIRCULAR REINFORCED CONCRETE PIPE AT 0° SKEW FOR THE LISTED SLOPE. THE DIMENSION 'W' IS BASED ON THE DIAMETER, OR SPAN, OF THE PIPE. THE FINAL HEADWALL DIMENSIONS AND CONCRETE QUANTITIES MAY VARY BASED ON THE FINAL GRADED SLOPE, PIPE SKEW, AND/OR TYPE OF PIPE.
- WOVEN WIRE REINFORCEMENT (WWF 6"x6" - W2.9xW2.9) IS REQUIRED FOR THE SLOPE PAVING AND TOE WALL. UTILIZE 2" CLEARANCE FROM ALL EDGES.
- DIMENSIONS AND CONCRETE QUANTITIES SHOWN ARE FOR ONE (1) HEADWALL, INSTALLED ON A PIPE WITH SKEW = 0°.
- 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 MANUFACTURER. NOTE: STEEL WEDGE ANCHORS ARE NOT REQUIRED FOR REINFORCED CONCRETE PIPE.
- 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
- ALL BOLTS AND HARDWARE SHALL BE RUST RESISTANT: ZINC PLATED, STAINLESS STEEL, OR STEEL THAT HAS BEEN GALVANIZED IN ACCORDANCE WITH AASHTO M 232.

NOT TO SCALE

KENTUCKY
DEPARTMENT OF HIGHWAYS
SLOPED & MITERED CONCRETE HEADWALL (SHEET 1 OF 2)

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



- ~ NOTES ~
- SEE SHEET 1 FOR NOTES 1 THRU 8
 - 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
 - ALL BOLTS AND HARDWARE SHALL BE RUST RESISTANT; ZINC PLATED, STAINLESS STEEL, OR STEEL THAT HAS BEEN GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
 - 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.
 - ANY RAW METAL EXPOSED BY FIELD CUTTING AND/OR DRILLING SHALL BE TREATED WITH A COLD GALVANIZING COMPOUND.
 - FASTEN PARALLEL BARS TO HEADWALL WITH 5/8" DIA. x 4 1/2" LENGTH STEEL WEDGE ANCHORS, MINIMUM EMBEDMENT = 2 1/4" HOLE SIZE AND DEPTH, TORQUE, & INSTALLATION PROCEDURES PER RECOMMENDATION OF ANCHOR MANUFACTURE.
 - CENTER BOLT HOLE SHALL ONLY BE DRILLED IN THE TOP AND BOTTOM PARALLEL BARS.
 - FASTEN THE PERPENDICULAR BAR TO THE TOP AND BOTTOM PARALLEL BARS WITH 1/2" DIA. x 4" LENGTH HEX HEAD BOLTS, HEX HEAD NUTS, & FLAT WASHERS.
 - 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 9 TO DETERMINE
IF GRATE IS REQUIRED

DIMENSIONS AND CONCRETE QUANTITIES (FOR PIPE WITH SKEW = 0°) ④

PIPE SIZE	3:1 SLOPE			4:1 SLOPE			6:1 SLOPE			GRATE REQUIRED	
	A	B	W	A	B	W	A	B	W		
36"	3'	9'-7 1/2"	7'-0"	4'	12'-6 1/2"	7'-0"	6'	18'-6"	7'-0"	2.42	YES
42"	3'	11'-4"	7'-6"	4'	14'-9 1/4"	7'-6"	6'	21'-9 1/2"	7'-6"	3.19	YES

••DIMENSIONS AND CONCRETE QUANTITIES ARE APPROXIMATE AND LISTED FOR INFORMATIONAL PURPOSES ONLY••

BID ITEM AND UNIT TO BID: 24575ES610 HEADWALL (SLOPED & MITERED CONCRETE-FOR 3" INCH PIPE) - EACH

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)

COUNTY OF	TOWN NO.	SHEET NO.
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FIGURE 1

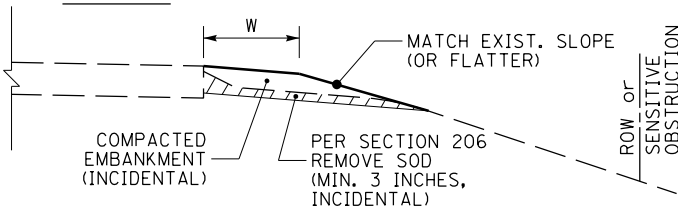


FIGURE 2

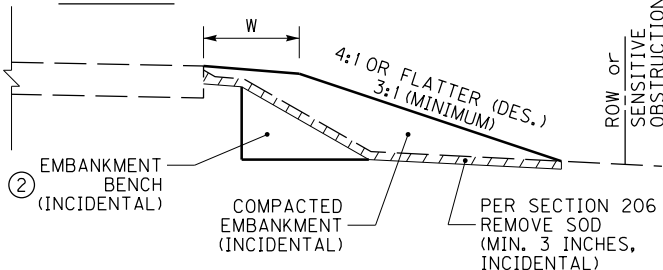


FIGURE 3

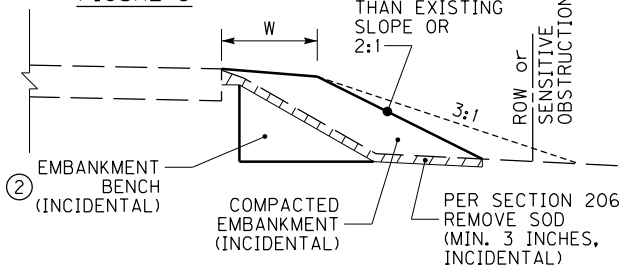


FIGURE 4

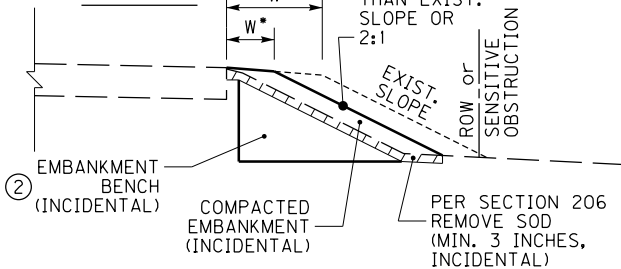


FIGURE 5

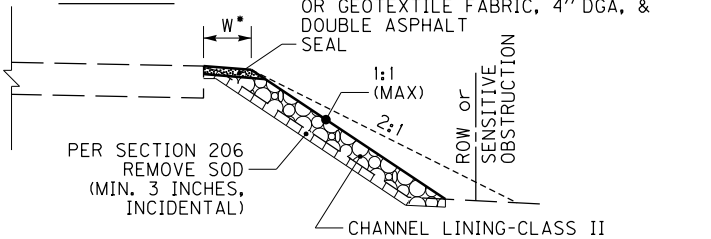
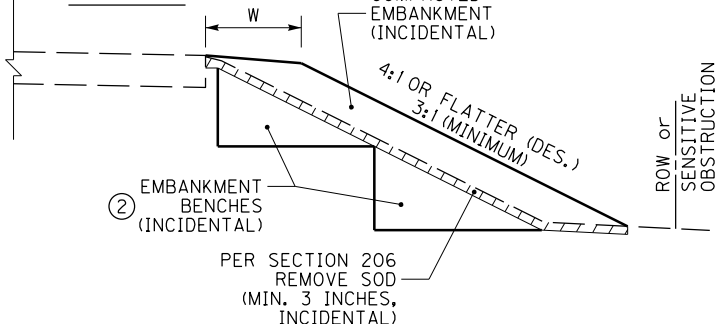


FIGURE 6



~ NOTES ~

BID ITEM AND UNIT TO BID:
 2575 - DITCHING & SHOULDERING - LF

1. THE BID ITEM 'DITCHING & SHOULDERING' SHALL CONSIST OF ANY AND ALL NECESSARY CLEARING & GRUBBING, GRADING, AND/OR RESHAPING OF THE EXISTING SHOULDER, DITCH, AND/OR ROADSIDE TO ACHIEVE THE PROPOSED SHOULDER, DITCH, AND/OR ROADSIDE DIMENSIONS, AS DETAILED ON THE TYPICAL SECTIONS. FINAL PAYMENT WILL BE BASED ON THE ACTUAL LINEAR FEET OF DITCHING AND SHOULDERING PERFORMED, AND WILL INCLUDE ALL WORK AND INCIDENTALS NECESSARY TO PERFORM THE DITCHING AND SHOULDERING ACCORDING TO THESE DETAILS, NOTES, AND ANY OTHER INFORMATION FOUND ELSEWHERE IN THE PROPOSAL OR STANDARD SPECIFICATIONS. IN THE CASE OF A DISCREPANCY, REFER TO SECTION 105.05 OF THE STANDARD SPECIFICATIONS. DEPENDING ON THE EXISTING CONDITIONS ENCOUNTERED, DITCHING AND SHOULDERING MAY ALSO INCLUDE, BUT IS NOT LIMITED TO:

- PROVIDING ADDITIONAL EARTH MATERIAL AND GRADING, SHAPING, AND COMPACTING THE EARTH MATERIAL TO ACHIEVE THE DIMENSIONS SHOWN ON THE TYPICAL SECTIONS. COMPACT MATERIAL ACCORDING TO SECTION 206 OF THE STANDARD SPECIFICATIONS.
- NOTE: ADDITIONAL EARTH MATERIAL PROVIDED SHALL BE SUITABLE FOR VEGETATION GROWTH.
- EXCAVATING AND REMOVING EXCESS MATERIAL TO ACHIEVE THE DIMENSIONS SHOWN ON THE TYPICAL SECTIONS
- EMBANKMENT BENCHING

② EMBANKMENT BENCHING WILL BE REQUIRED WHEN THE EXISTING GROUNDLINE HAS AN INCLINE GREATER THAN 15% (APPROX. 6:1). ANY AND ALL REQUIRED EMBANKMENT BENCHING SHALL BE INCIDENTAL TO THE BID ITEM 'DITCHING AND SHOULDERING'. THE FOLLOWING ARE GUIDELINES FOR EMBANKMENT BENCHING USED IN CONJUNCTION WITH THE BID ITEM 'DITCHING AND SHOULDERING':

- THE TYPICAL HEIGHT (OR RISE) IS 1' TO 6'
- THE TYPICAL WIDTH (OR RUN) WILL VARY BASED ON THE HEIGHT OF THE BENCH
- MULTIPLE SMALL BENCHES MAY BE USED, AND MAY BE MORE ADVANTAGEOUS AS THIS WILL REQUIRE PROCESSING LESS EARTHWORK.

3. AS SHOWN IN FIGURE 1, IN SOME SITUATIONS, MINOR SHOULDERING, WITH MINIMAL ADDITIONAL EARTH MATERIAL, MAY BE ALL THAT IS REQUIRED TO RESHAPE THE EARTH SHOULDER TO THE PROPOSED WIDTH AND BRING IT FLUSH WITH THE EDGE OF PAVEMENT.

4. AS SHOWN IN FIGURE 2, MOST SITUATIONS WILL REQUIRE ADDITIONAL EARTH MATERIAL TO ACHIEVE THE PROPOSED EARTH SHOULDER WIDTH. IT IS DESIRED THAT THE RESULTING FILL SLOPE BE INSTALLED AS FLAT AS POSSIBLE AND REMAIN WITHIN THE RIGHT-OF-WAY AND/OR AVOID SENSITIVE OBSTRUCTIONS.

5. AS SHOWN IN FIGURE 3, IF A 3:1 FILL SLOPE WILL RESULT IN THE TOE OF SLOPE EXTENDING BEYOND THE RIGHT-OF-WAY OR IMPACT A SENSITIVE OBSTRUCTION, THEN THE FILL SLOPE MAY BE INSTALLED STEEPER THAN 3:1, BUT NO STEEPER THAN THE EXISTING FILL SLOPE, OR A 2:1, WHICHEVER IS FLATTER.

6. AS SHOWN IN FIGURE 4, IF MATCHING THE EXISTING FILL SLOPE OR INSTALLING A 2:1 FILL SLOPE (WHICHEVER IS FLATTER) STILL RESULTS IN THE TOE OF SLOPE EXTENDING BEYOND THE RIGHT-OF-WAY OR STILL IMPACTS A SENSITIVE OBSTRUCTION, THEN THE PROPOSED EARTH SHOULDER WIDTH MAY BE REDUCED SO THAT THE RESULTING TOE OF SLOPE WILL REMAIN WITHIN THE RIGHT-OF-WAY AND/OR NOT IMPACT THE SENSITIVE OBSTRUCTION.

7. AS SHOWN IN FIGURE 5, IF THE EXISTING FILL SLOPE IS STEEPER THAN 2:1 AND THERE IS NOT ENOUGH SPACE TO INSTALL A 2:1 FILL SLOPE WITHOUT EXTENDING BEYOND THE RIGHT-OF-WAY AND/OR IMPACTING A SENSITIVE OBSTRUCTION, THEN CLASS II CHANNEL LINING MAY BE INSTALLED ALONG THE STEEP EXISTING SLOPE IN ORDER TO ESTABLISH A WIDTH OF AGGREGATE SHOULDER. THESE LOCATIONS WILL BE NOTED ELSEWHERE IN THE PROPOSAL AS SLOPE PROTECTION. THE CHANNEL LINING IS TO BE CAPPED WITH GEOTEXTILE FABRIC TYPE IV AND 4" OF CRUSHED STONE BASE, OR 4" OF DGA WITH DOUBLE ASPHALT SEAL COAT.

8. AS SHOWN IN FIGURE 6, AS THE HEIGHT OF THE FILL INCREASES, MULTIPLE EMBANKMENT BENCHES MAY BE REQUIRED.

SEE SHEET 2 FOR
 NOTES 9 THRU 13

**KENTUCKY
 DEPARTMENT OF HIGHWAYS**

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

NOT TO SCALE

FIGURE 7

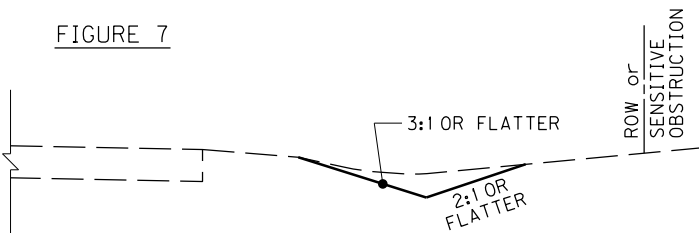


FIGURE 8

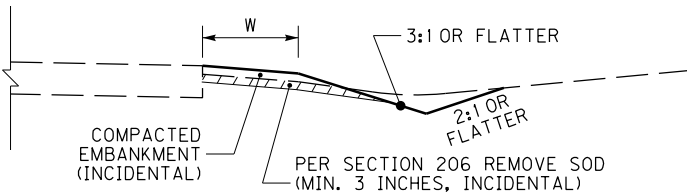


FIGURE 9

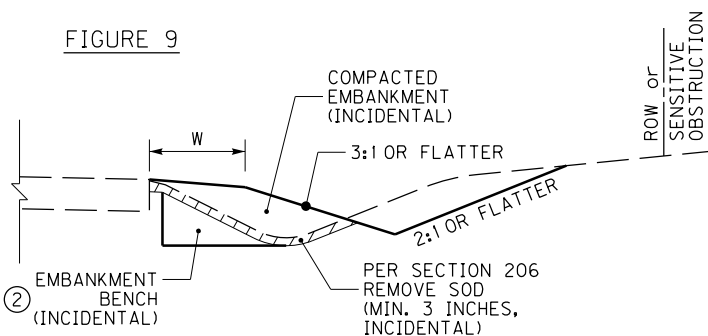


FIGURE 10

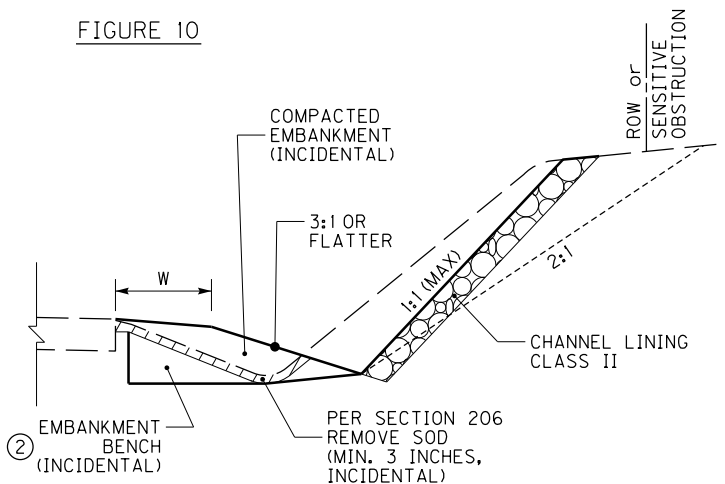
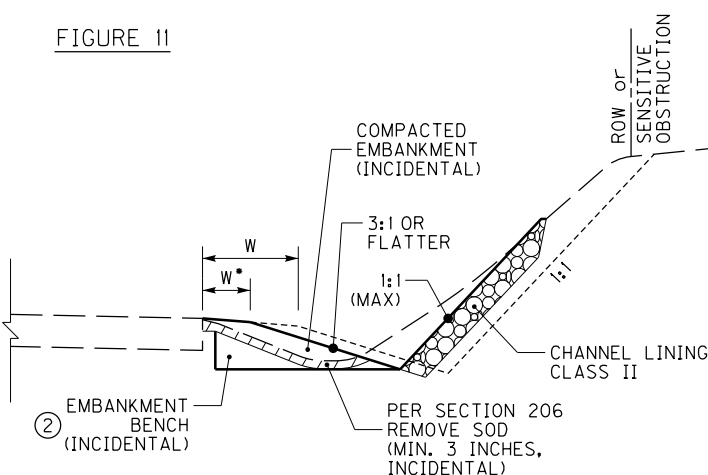


FIGURE 11



~ NOTES ~

BID ITEM AND UNIT TO BID:
2575 - DITCHING & SHOULDERING - LF

1. THE BID ITEM 'DITCHING & SHOULDERING' SHALL CONSIST OF ANY AND ALL NECESSARY CLEARING & GRUBBING, GRADING, AND/OR RESHAPING OF THE EXISTING SHOULDER, DITCH, AND/OR ROADSIDE TO ACHIEVE THE PROPOSED SHOULDER, DITCH, AND/OR ROADSIDE DIMENSIONS, AS DETAILED ON THE TYPICAL SECTIONS. FINAL PAYMENT WILL BE BASED ON THE ACTUAL LINEAR FEET OF DITCHING AND SHOULDERING PERFORMED, AND WILL INCLUDE ALL WORK AND INCIDENTALS NECESSARY TO PERFORM THE DITCHING AND SHOULDERING ACCORDING TO THESE DETAILS, NOTES, AND ANY OTHER INFORMATION FOUND ELSEWHERE IN THE PROPOSAL OR STANDARD SPECIFICATIONS. IN THE CASE OF A DISCREPANCY, REFER TO SECTION 105.05 OF THE STANDARD SPECIFICATIONS. DEPENDING ON THE EXISTING CONDITIONS ENCOUNTERED, DITCHING AND SHOULDERING MAY ALSO INCLUDE, BUT IS NOT LIMITED TO:

- PROVIDING ADDITIONAL EARTH MATERIAL AND GRADING, SHAPING, AND COMPACTING THE EARTH MATERIAL TO ACHIEVE THE DIMENSIONS SHOWN ON THE TYPICAL SECTIONS. COMPACT MATERIAL ACCORDING TO SECTION 206 OF THE STANDARD SPECIFICATIONS.
- NOTE: ADDITIONAL EARTH MATERIAL PROVIDED SHALL BE SUITABLE FOR VEGETATION GROWTH.
- EXCAVATING AND REMOVING EXCESS MATERIAL TO ACHIEVE THE DIMENSIONS SHOWN ON THE TYPICAL SECTIONS
- EMBANKMENT BENCHING

② EMBANKMENT BENCHING WILL BE REQUIRED WHEN THE EXISTING GROUNDLINE HAS AN INCLINE GREATER THAN 15% (APPROX. 6:1). ANY AND ALL REQUIRED EMBANKMENT BENCHING SHALL BE INCIDENTAL TO THE BID ITEM 'DITCHING AND SHOULDERING'. THE FOLLOWING ARE GUIDELINES FOR EMBANKMENT BENCHING USED IN CONJUNCTION WITH THE BID ITEM 'DITCHING AND SHOULDERING':

- THE TYPICAL HEIGHT (OR RISE) IS 1' TO 6'
- THE TYPICAL WIDTH (OR RUN) WILL VARY BASED ON THE HEIGHT OF THE BENCH
- MULTIPLE SMALL BENCHES MAY BE USED, AND MAY BE MORE ADVANTAGEOUS AS THIS WILL REQUIRE PROCESSING LESS EARTHWORK.

SEE SHEET 2 FOR NOTES 3. THRU 8.

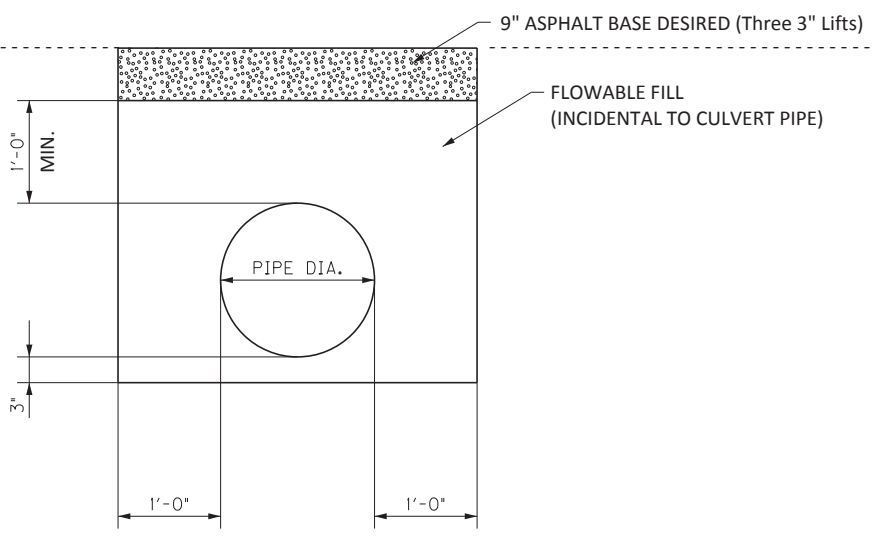
9. AS SHOWN IN FIGURE 7, IN SOME SITUATIONS, ALL THAT MAY BE REQUIRED IS TO CLEAN OUT THE EXISTING DITCH AND RESHAPE IT TO THE PROPOSED DIMENSIONS. THE MATERIAL EXCAVATED FROM THE DITCH MAY BE RE-USED ELSEWHERE ON THE PROJECT, PROVIDED THE ENGINEER DETERMINES THE MATERIAL REMOVED FROM THE DITCH IS SUITABLE FOR THE INTENDED RE-USE.
10. AS SHOWN IN FIGURE 8, IN SOME SITUATIONS, THE DITCH AND SHOULDER MAY ONLY NEED MINOR REGRADING AND/OR RESHAPING. THE MATERIAL EXCAVATED FROM THE DITCH MAY BE USED TO RESHAPE THE EARTH SHOULDER, PROVIDED THE ENGINEER DETERMINES THE MATERIAL REMOVED FROM THE DITCH IS SUITABLE FOR SHOULDERING. IF THE MATERIAL IS NOT SUITABLE, ADDITIONAL EARTH MATERIAL MAY BE REQUIRED.
11. AS SHOWN IN FIGURE 9, IN MOST SITUATIONS, REGRADING AND RESHAPING THE ROADSIDE TO ACHIEVE THE PROPOSED SHOULDER, DITCH, AND/OR ROADSIDE DIMENSIONS WILL RESULT IN MOVING THE DITCH FURTHER AWAY FROM THE ROADWAY. IT IS DESIRED THAT DITCH FORESLOPES BE 3:1 OR FLATTER AND DITCH BACKSLOPES BE 2:1 OR FLATTER.
12. AS SHOWN IN FIGURE 10, IF INSTALLING A 2:1 DITCH BACKSLOPE WILL RESULT IN THE TOP OF CUT EXTENDING BEYOND THE RIGHT-OF-WAY OR IMPACTING A SENSITIVE OBSTRUCTION, THEN THE DITCH BACK SLOPE MAY BE INSTALLED STEEPER THAN 2:1, UP TO 1:1 MAXIMUM. IN THIS SITUATION, THE DITCH BACKSLOPE SHALL HAVE CLASS II CHANNEL LINING INSTALLED FOR SLOPE PROTECTION.
13. AS SHOWN IN FIGURE 11, IF USING A 1:1 DITCH BACKSLOPE STILL RESULTS IN THE TOP OF CUT EXTENDING BEYOND THE RIGHT-OF-WAY OR STILL IMPACTS A SENSITIVE OBSTRUCTION, THEN THE PROPOSED EARTH SHOULDER WIDTH MAY BE REDUCED SO THAT THE STEEP DITCH BACKSLOPE CAN BE INSTALLED WITHIN THE RIGHT-OF-WAY AND/OR TO AVOID A SENSITIVE OBSTRUCTION.

KENTUCKY
DEPARTMENT OF HIGHWAYS

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

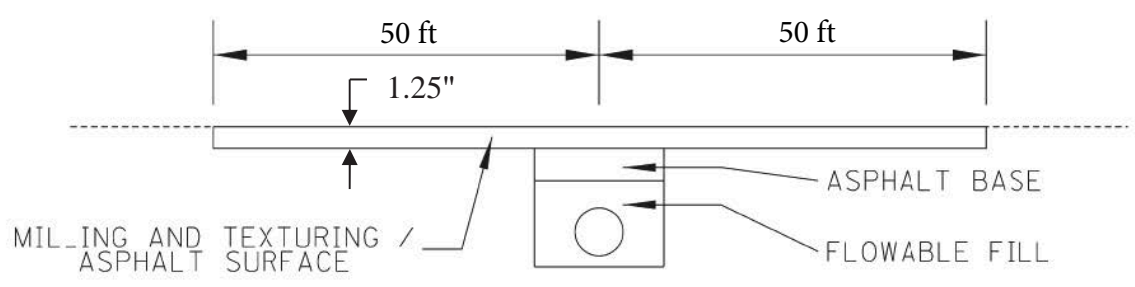
NOT TO SCALE

CULVERT PIPE REPLACEMENT DETAIL

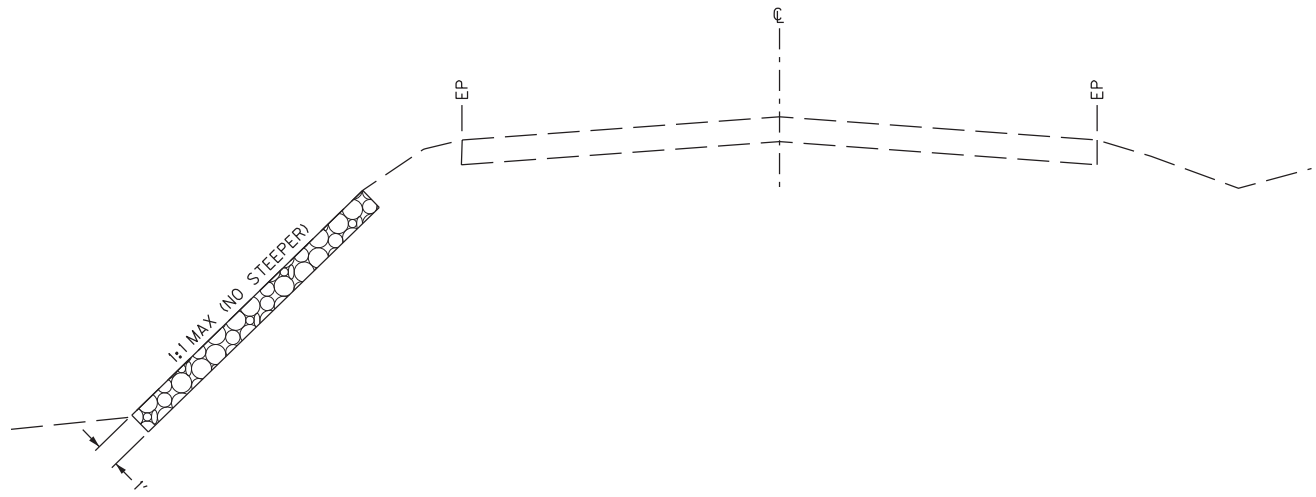


CULVERT PIPE REPLACEMENTS - INITIAL BACKFILL

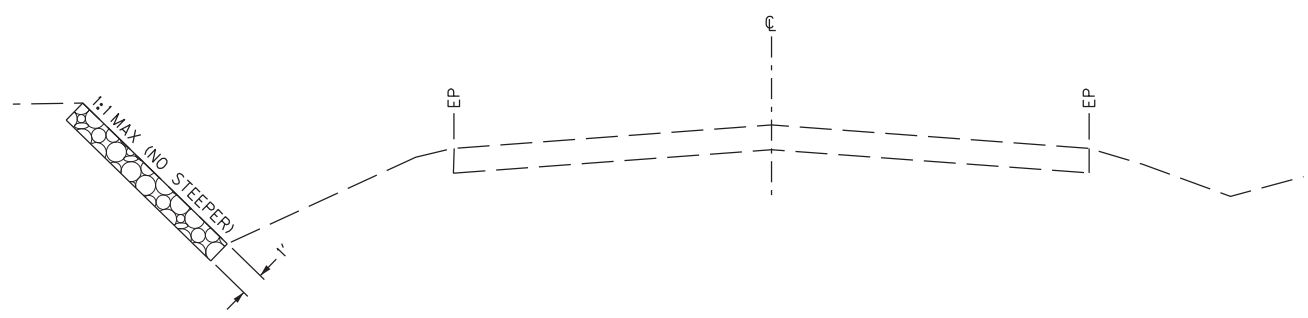
Culvert Pipe Replacements shall be constructed according to the Initial Backfill Detail shown above, or as directed by the Engineer. Allow the asphalt base to be exposed to traffic a minimum of 14 days to allow for settlement. After the 14 day waiting period, mill and inlay 1.25 inches of asphalt surface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



COUNTY OF	ITEM NO.	SHEET NO.



PROTECTION DETAIL FOR EMBANKMENT FILL SLOPE

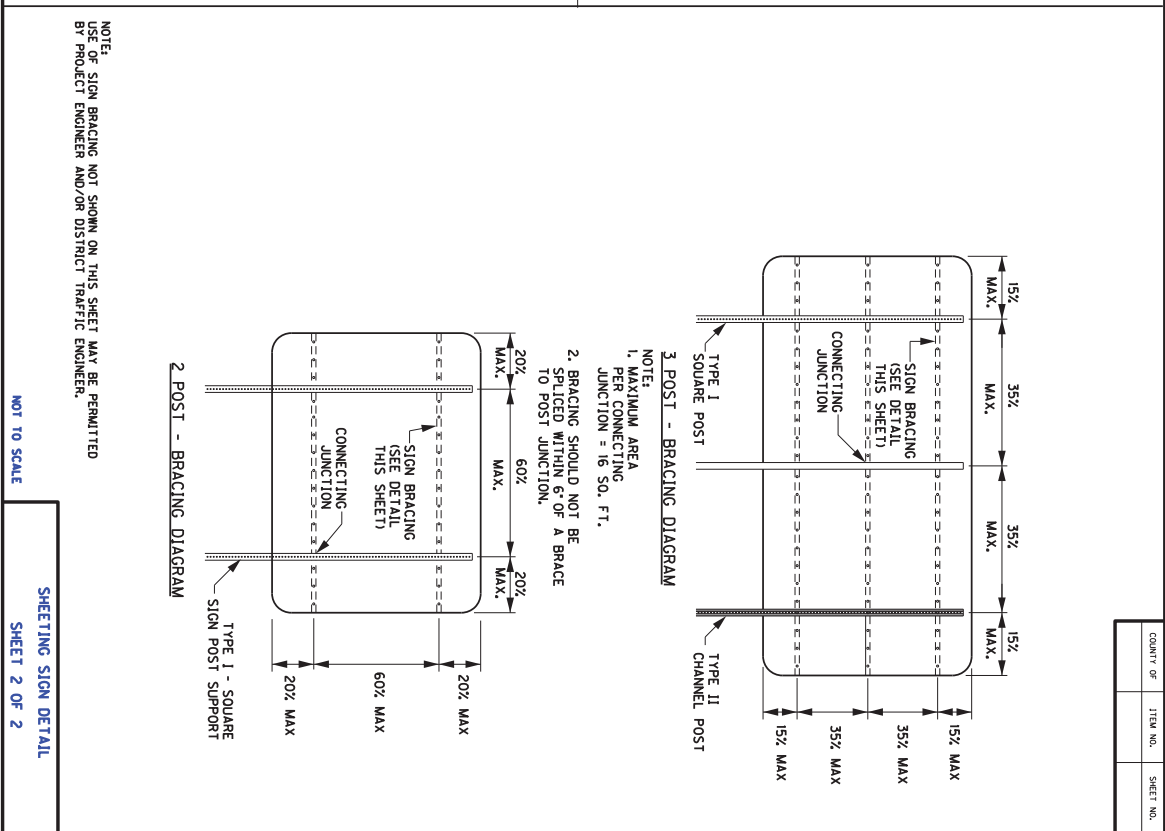
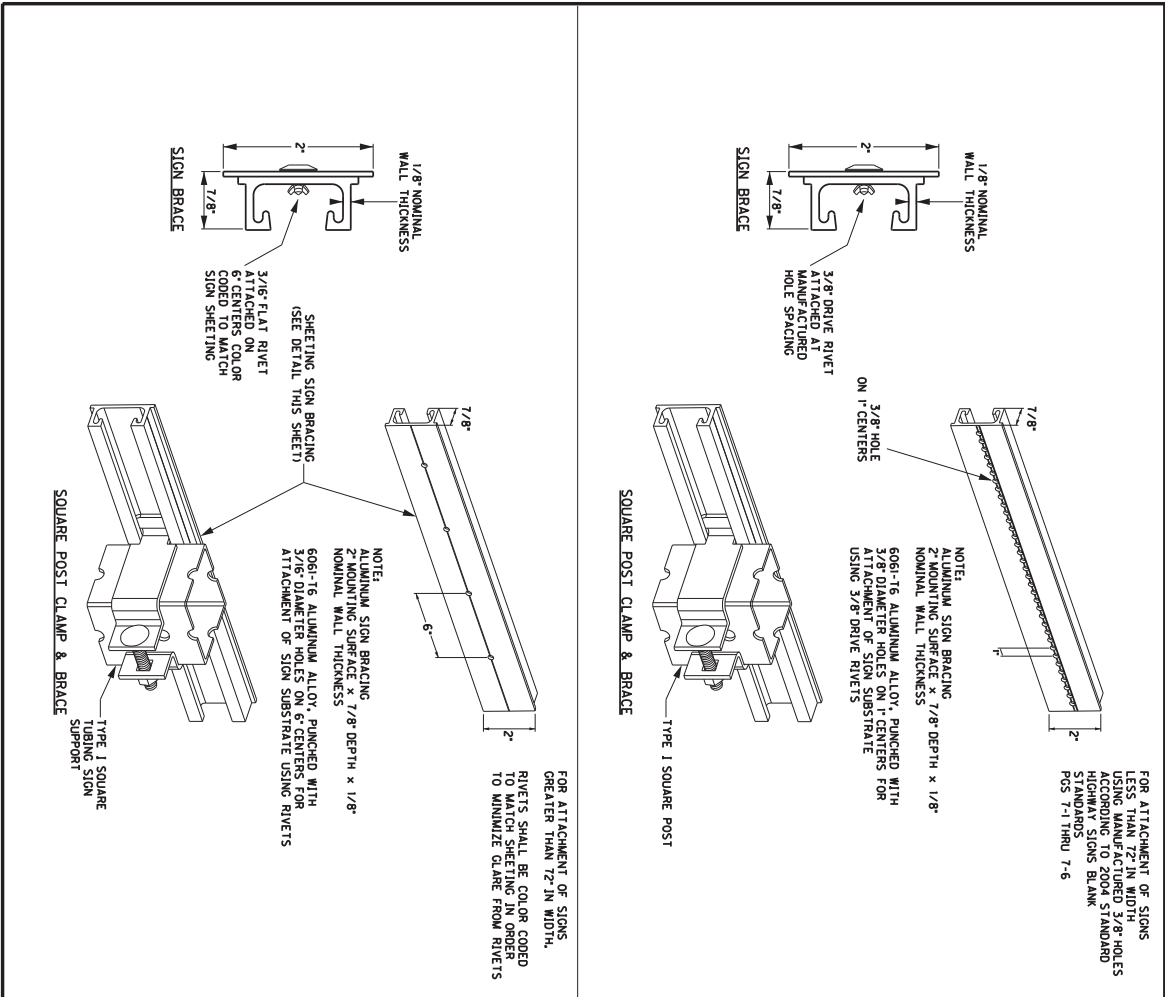


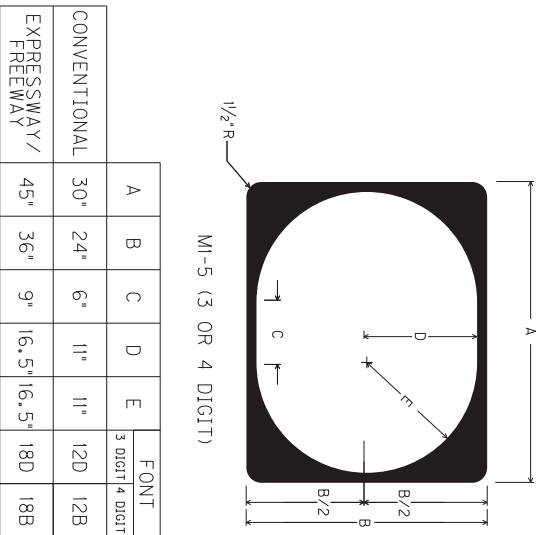
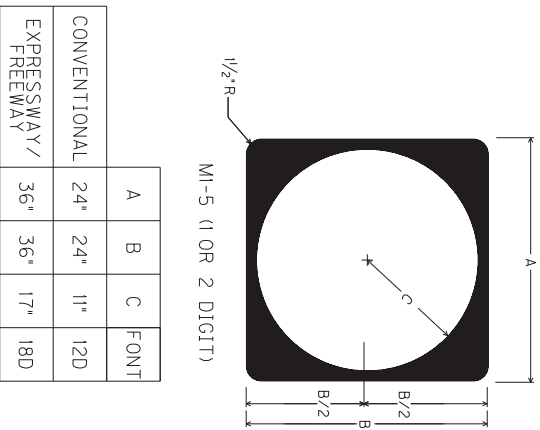
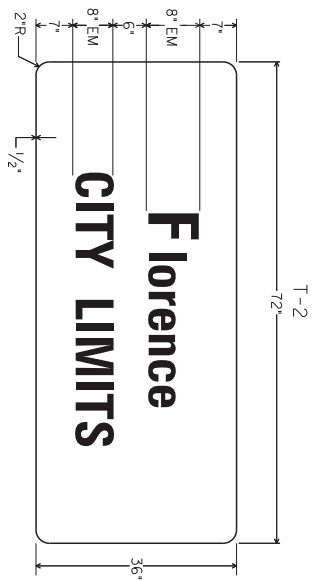
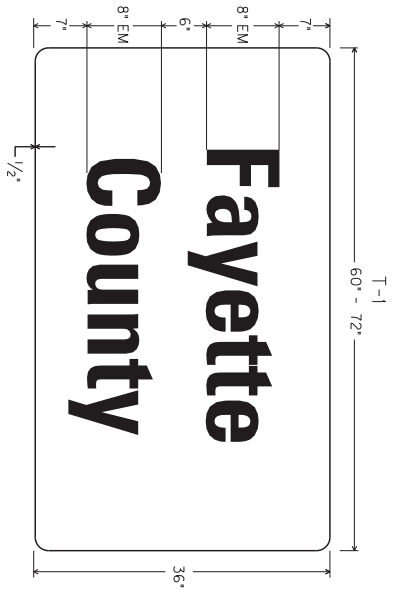
PROTECTION DETAIL FOR DITCH BACKSLOPE

NOTES:

1. SEE CHANNEL LINING SUMMARY FOR APPROXIMATE LOCATIONS OF SLOPE PROTECTION.
2. FINAL LOCATIONS TO BE DETERMINED BY THE ENGINEER.
3. EXCAVATION IS INCIDENTAL TO THE PLACEMENT OF THE CHANNEL LINING.

SLOPE PROTECTION DETAILS



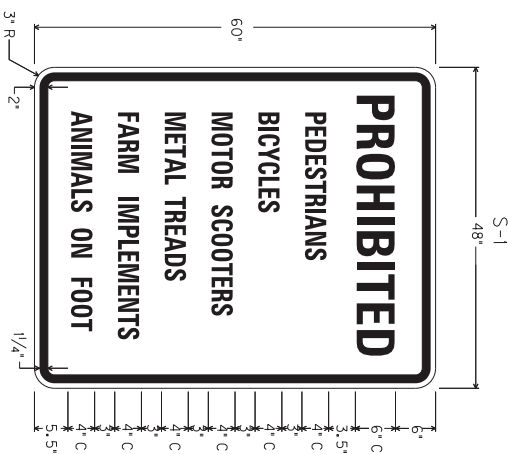


	A	B	C	FONT
CONVENTIONAL	24"	24"	11"	12D
EXPRESSWAY/ FREEWAY	36"	36"	17"	18D

	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.

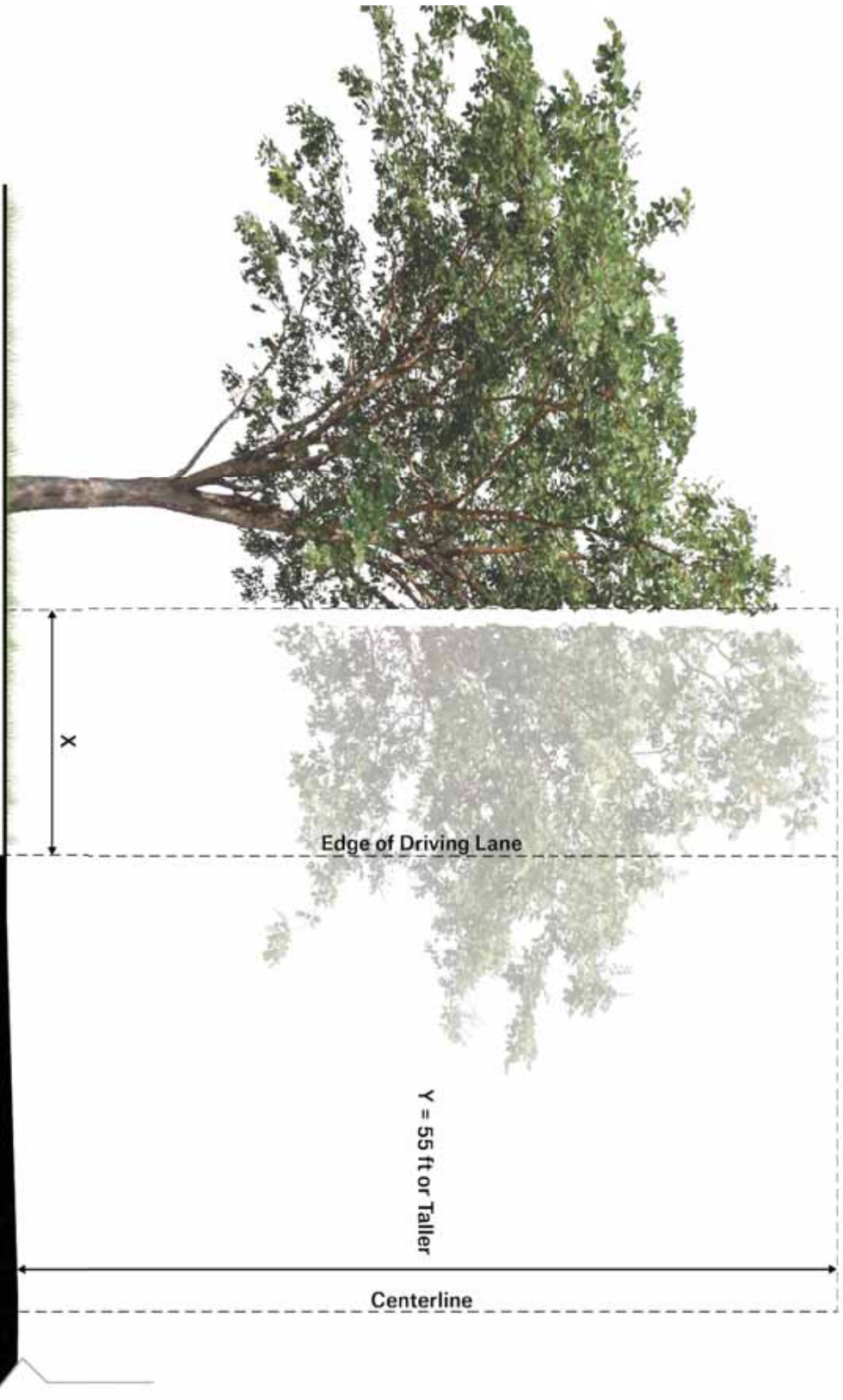


NOT TO SCALE

TYPICAL SIGNS

COUNTY OF	ITEM NO.	SHEET NO.

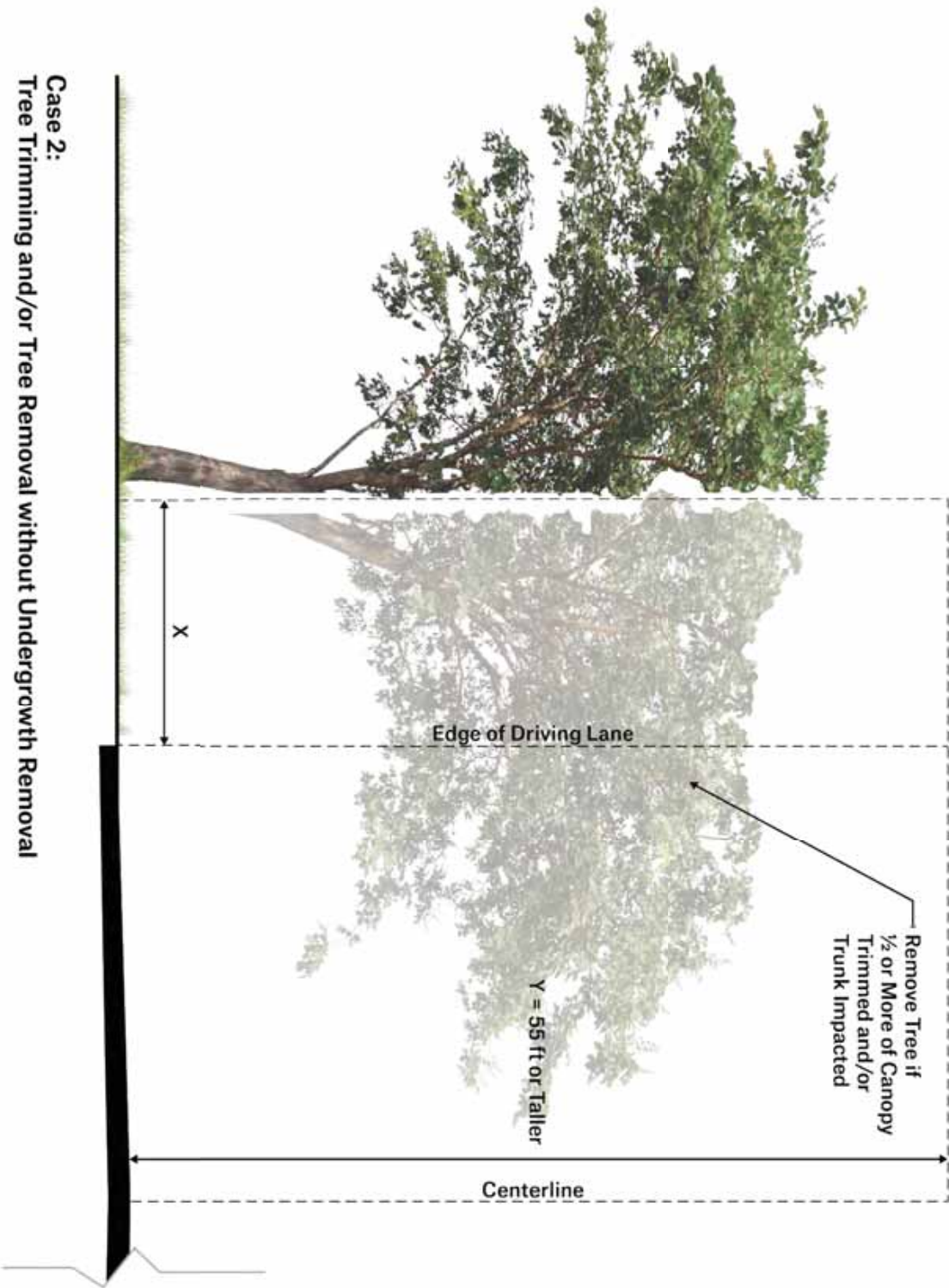
**Case 1:
Tree Trimming without Undergrowth Removal**

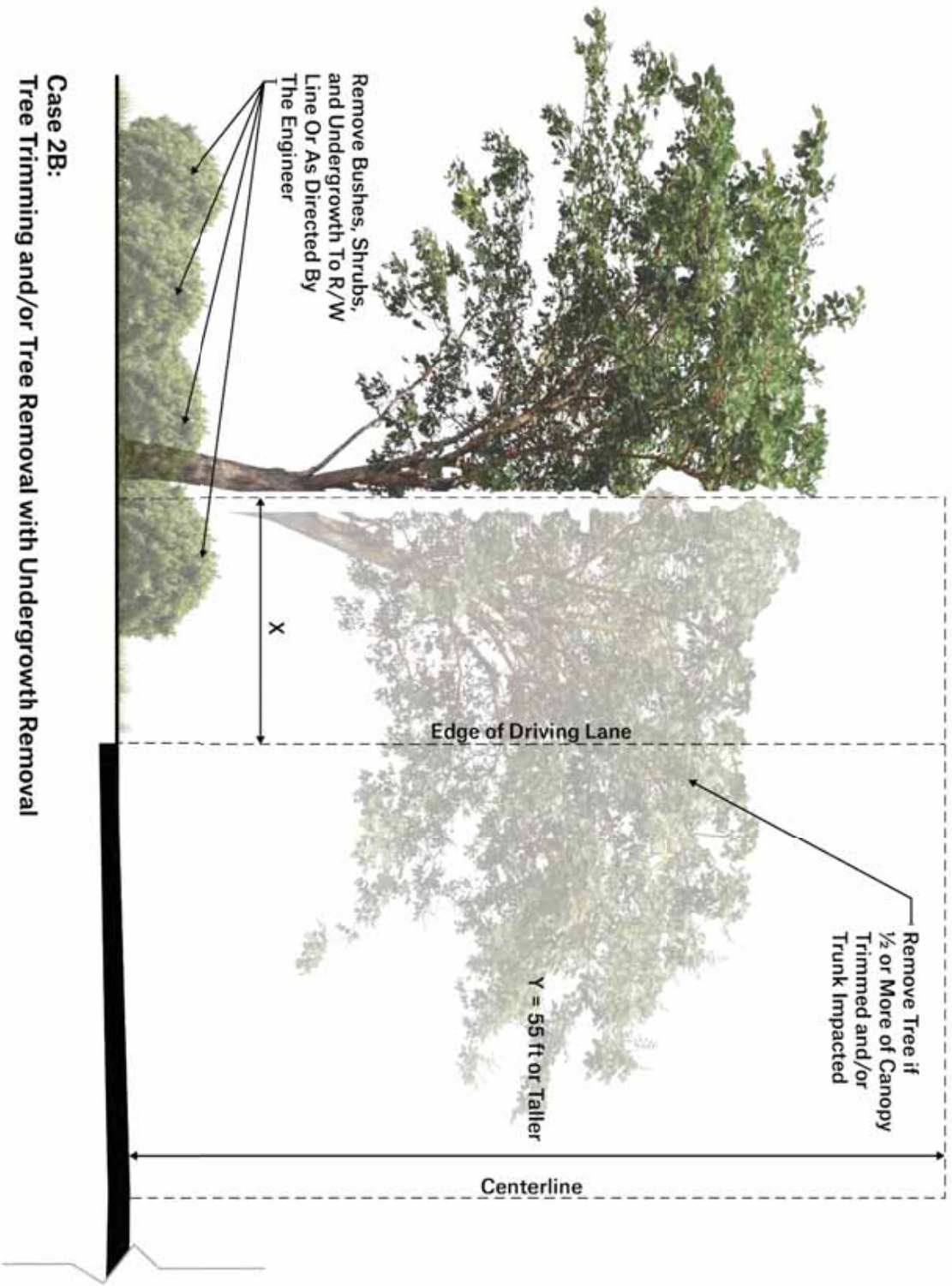




**Case 1B:
Tree Trimming with Undergrowth Removal**

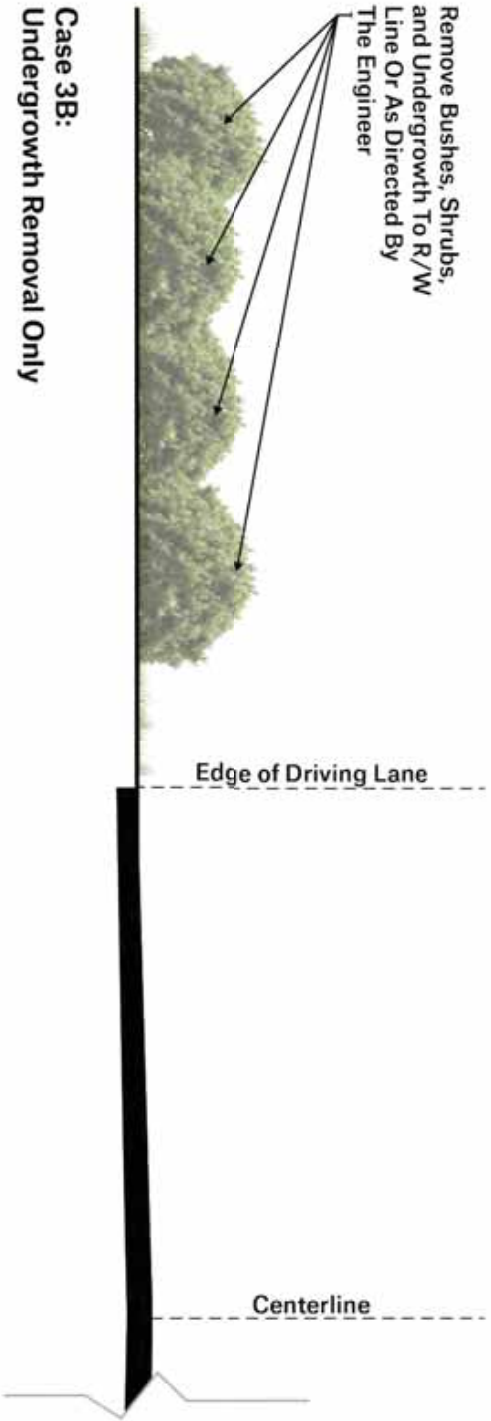
**Case 2:
Tree Trimming and/or Tree Removal without Undergrowth Removal**





Case 2B:
Tree Trimming and/or Tree Removal with Undergrowth Removal

**Case 3B:
Undergrowth Removal Only**



Remove Bushes, Shrubs,
and Undergrowth To R/W
Line Or As Directed By
The Engineer

Edge of Driving Lane

Centerline

TYPICAL SECTION DEPICTING INSTALLATION OF RECYCLED RAILROAD RAIL PLACED IN DRILLED SOCKET FOR LANDSLIDE CORRECTION

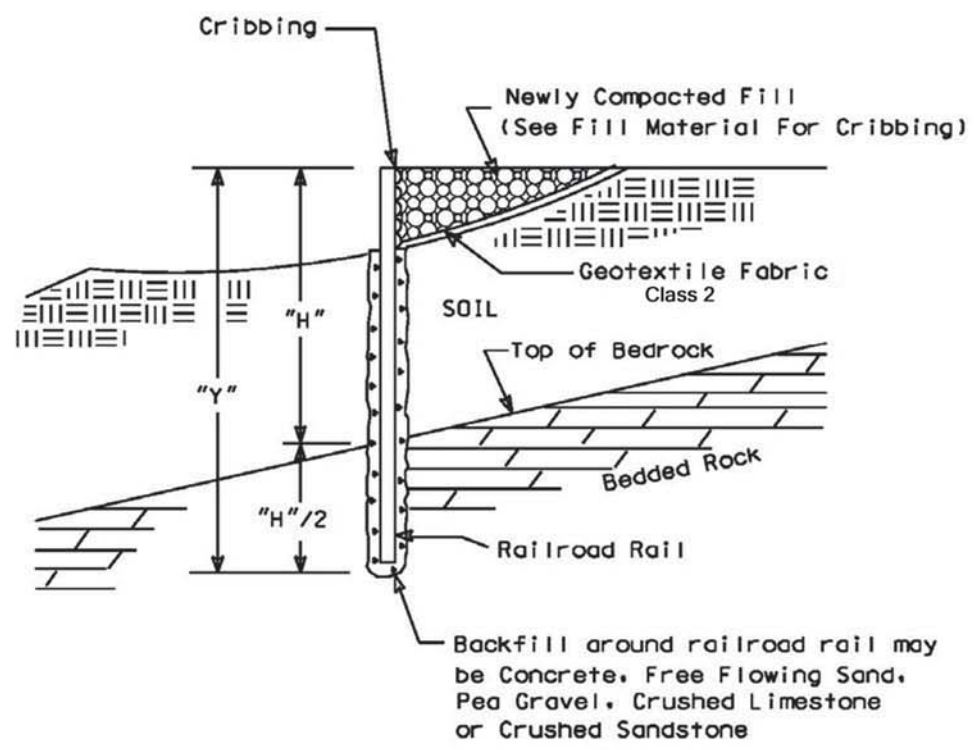
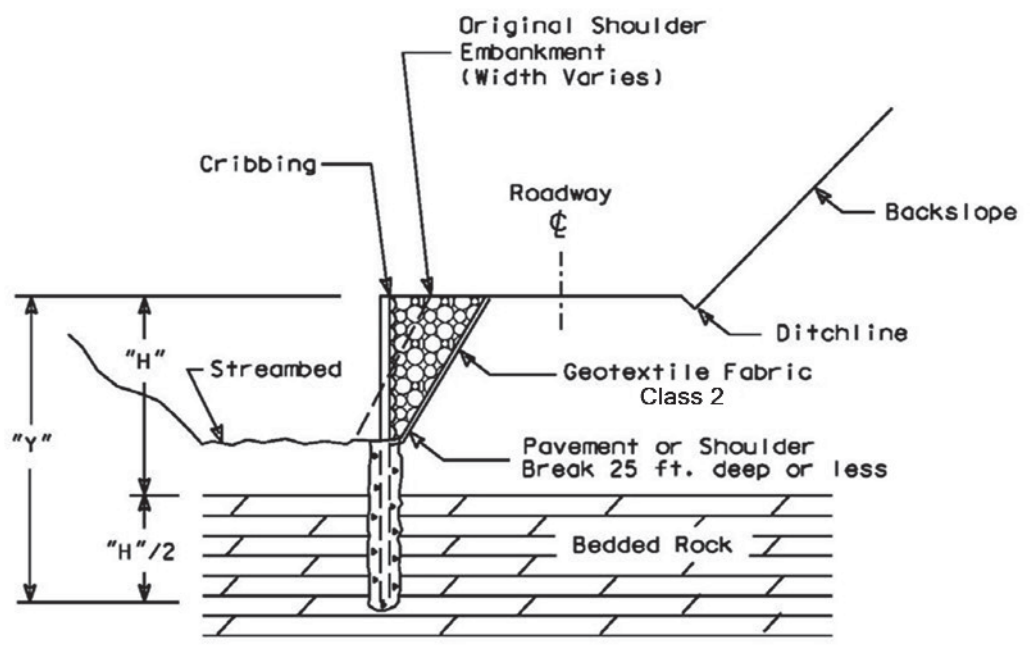


Figure 1

TYPICAL CROSS SECTION OF ROADWAY REPAIRS UTILIZING RECYCLED RAILROAD RAILS IN DRILLED SOCKETS FOR EMBANKMENT EROSION CORRECTION

NOTE:
Spacing from edge to
edge of drilled
socket : 3 ft. max.



NOTE :
"H"/2 Depth of Rail into bedded rock =
1/3 total length where rock is present.

Figure 2

ALTERNATE SCHEMES FOR INSTALLING RAILROAD RAILS IN DRILLED SOCKETS

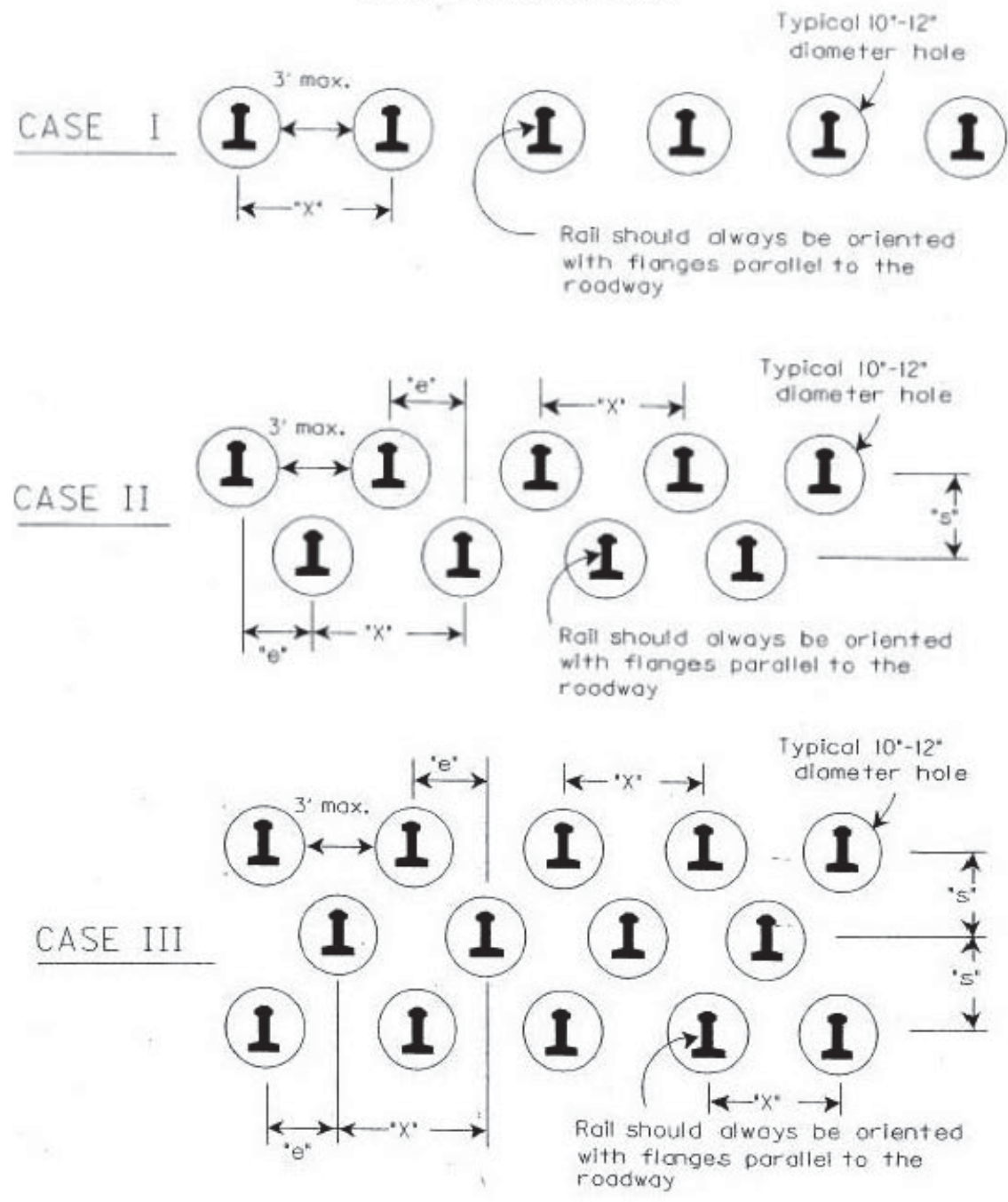


FIGURE 3

**DESIGN CHART FOR 130LBS/YD TO 133 LBS/YD RECYCLED (USED) RAILROAD RAILS
FACTOR OF SAFETY = 1**

Soil Depth to Bedded Rock "H" (Feet)	Minimum Embedment into Bedded Rock "H/2" (Feet)	Total Length of Installed Railroad Rail "Y" (Feet)	Required Number of Rows	Maximum Spacing Between Rails "X" (Max. 48") (Inches)	Effective Spacing Between Rows of Rails "e" (Inches)
8	4	12	1	48	N/A
9	4.5	13.5	1	48	N/A
10	5	15	1	48	N/A
11	5.5	16.5	1	48	N/A
12	6	18	1	48	N/A
13	6.5	19.5	1	48	N/A
14	7	21	1	32	N/A
15	7.5	22.5	2	48	24
16	8	24	2	44	22
17	8.5	25.5	2	36	18
18	9	27	2	28	14
19	9.5	28.5	2	24	12
20	10	30	3	33	11
21	10.5	31.5	3	28.5	9.5
>21	N/A	N/A	N/A	N/A	N/A

NOTES:

1. REFER TO FIGURES 1, 2, & 3 FOR DIMENSIONS SHOWN
2. FOR SOIL DEPTHS "H" GREATER THAN 21 FEET CONTACT THE ENGINEER.

TABLE I

IDENTIFICATION OF RAILROAD RAIL SIZES

1. Typically classified in units of lbs-per-yard.

Examples :

155 lbs/yd, 140 lbs/yd, 132 lbs/yd, 90 lbs/yd

2. Each rail has a classification stamped in web:

Example :

112 25 RE OH ILLINOIS USA 1935 IIIIII



Weight in lbs/yd

GUARDRAIL DELIVERY VERIFICATION SHEET

Contract Id: _____

Contractor: _____

Section Engineer: _____

District & County: _____

<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QTY LEAVING PROJECT</u>	<u>QTY RECEIVED@BB YARD</u>
GUARDRAIL (Includes End treatments & crash cushions)	LF	_____	_____
STEEL POSTS	EACH	_____	_____
STEEL BLOCKS	EACH	_____	_____
WOOD OFFSET BLOCKS	EACH	_____	_____
BACK UP PLATES	EACH	_____	_____
CRASH CUSHION	EACH	_____	_____
NUTS, BOLTS, WASHERS	BAG/BCKT	_____	_____
DAMAGED RAIL TO MAINT. FACILITY	LF	_____	_____
DAMAGED POSTS TO MAINT. FACILITY	EACH	_____	_____

***Required Signatures before Leaving Project Site**

Printed Section Engineer's Representative _____ & Date _____

Signature Section Engineer's Representative _____ & Date _____

Printed Contractor's Representative _____ & Date _____

Signature Contractor's Representative _____ & Date _____

***Required Signatures after Arrival at Bailey Bridge Yard (All material on truck must be counted & the quantity received column completed before signatures)**

Printed Bailey Bridge Yard Representative _____ & Date _____

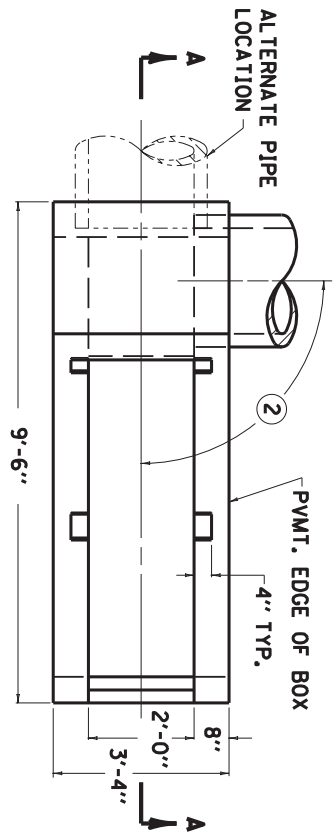
Signature Bailey Bridge Yard Representative _____ & Date _____

Printed Contractor's Representative _____ & Date _____

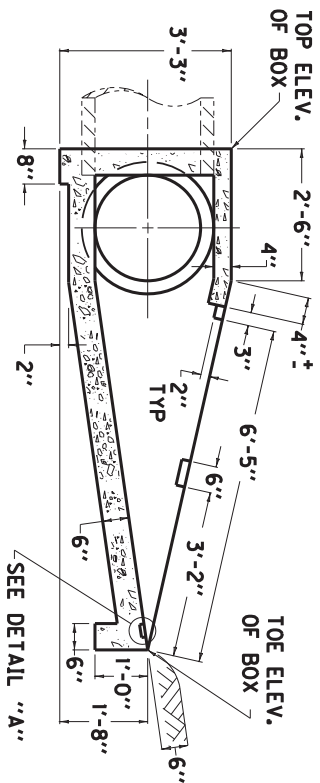
Signature Contractor's Representative _____ & Date _____

**Payment for the bid item remove guardrail will be based upon the quantities shown in the Bailey Bridge Yard received column. Payment will not be made for guardrail removal until the guardrail verification sheets are electronically submitted to the Section Engineer by the Bailey Bridge Yard Representative.

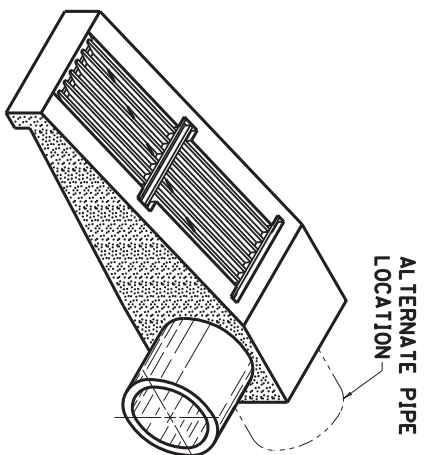
Completed Form Submitted to Section Engineer Date: _____ By: _____



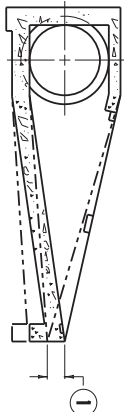
PLAN VIEW



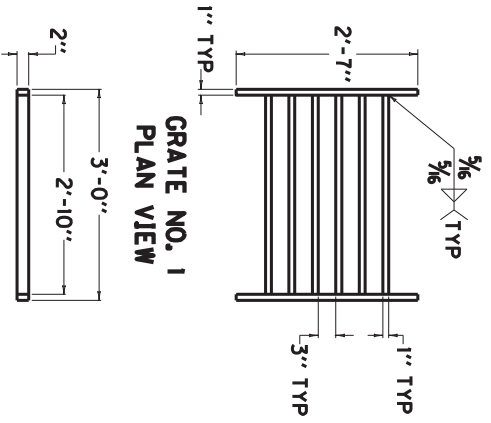
SECTION A-A



ISOMETRIC VIEW

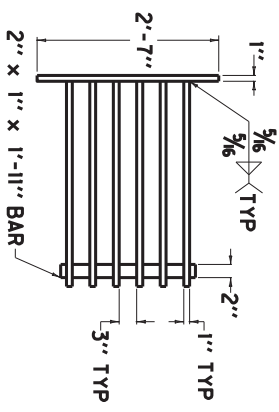


SECTIONAL VIEW



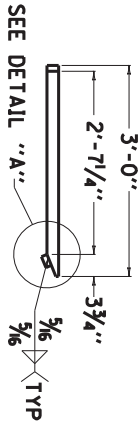
GRATE NO. 1
PLAN VIEW

GRATE NO. 1
SIDE ELEVATION



GRATE NO. 2
PLAN VIEW

GRATE NO. 2
SIDE ELEVATION



DETAIL "A"

NOTES

- ① 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.
- ② TOE OF BOX SHALL BE RAISED OR LOWERED TO FIT EXISTING FIELD CONDITIONS.
- ③ SKEW OF BOX SHALL VARY TO FIT EXISTING FIELD CONDITIONS.

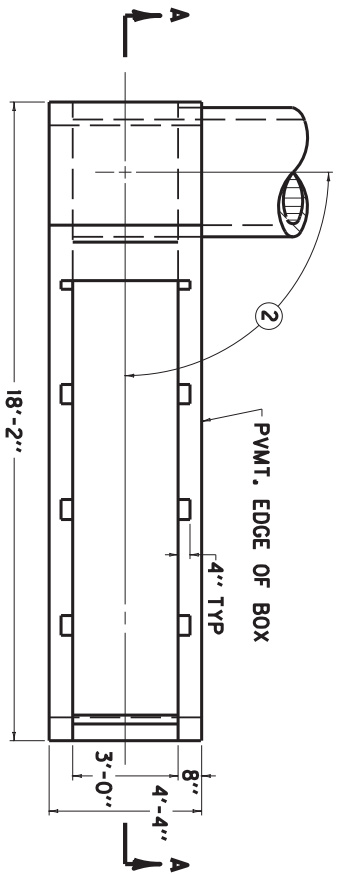
APPROXIMATE QUANTITIES			
CLASS "A"	GRATE CONC.	LBS. STRUCTURAL STEEL	TOTAL POUNDS
CUBIC YARDS	NUMBER	EACH GRATE	
1.44	1	145	298
	2	153	

COUNTY OF	ITEM NO.	SHEET NO.
-----------	----------	-----------

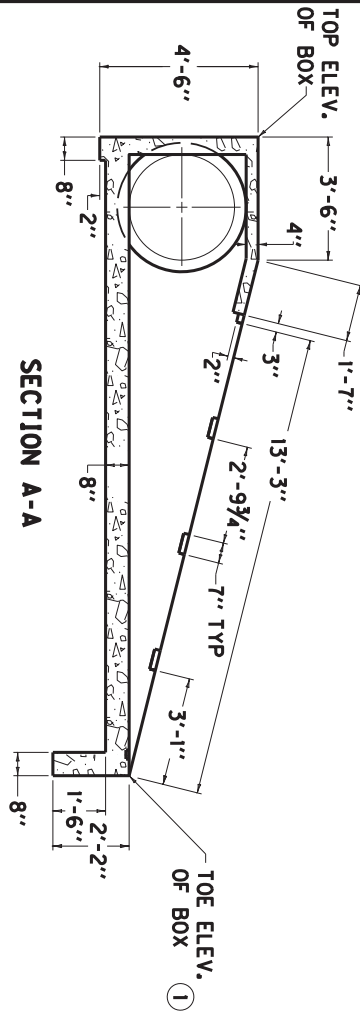
APPROVED _____ DATE 06-04-2008

KENTUCKY DEPARTMENT OF HIGHWAYS

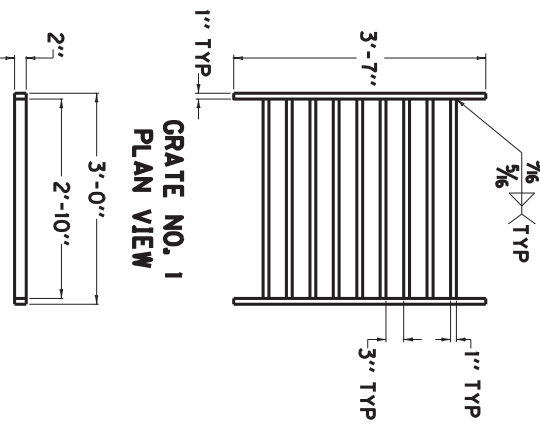
SAFETY TYPE BOX INLET (18" OR 24")



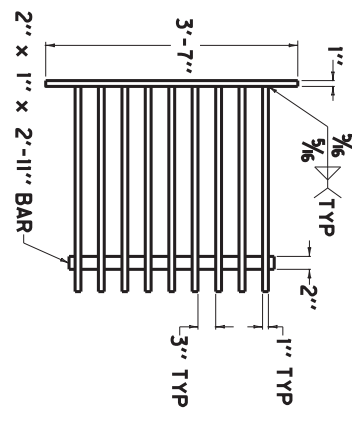
PLAN VIEW



SECTION A-A

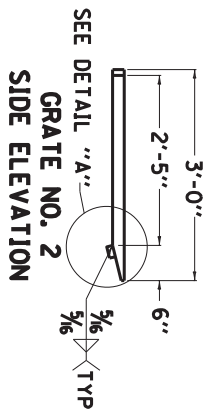


GRATE NO. 1
PLAN VIEW



GRATE NO. 2
PLAN VIEW

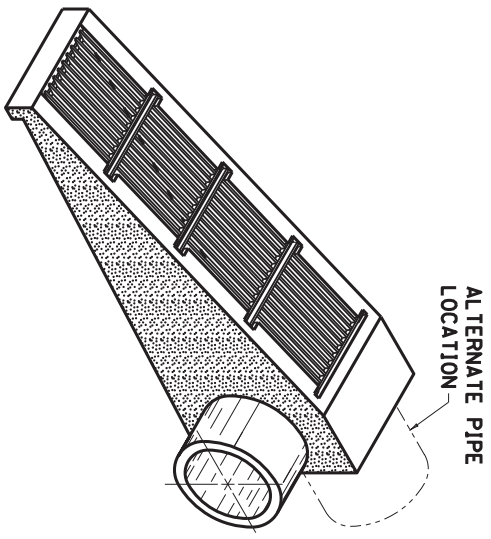
GRATE NO. 1
SIDE ELEVATION



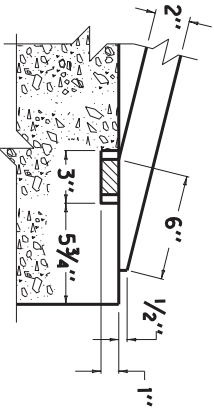
GRATE NO. 2
SIDE ELEVATION

- NOTES**
- 1. TOE OF BOX SHALL BE RAISED OR LOWERED TO FIT EXISTING FIELD CONDITIONS.
 - 2. SKEW OF BOX SHALL VARY TO FIT EXISTING FIELD CONDITIONS.
 - 3. ALL QUANTITIES ARE FOR ONE HEADWALL.

APPROXIMATE QUANTITIES					
CLASS	GRATE	NO. OF GRATES	STRUCTURAL STEEL	REINF. STEEL	LBS.
"A" CONC.					
CUBIC YARDS	NUMBER	REO'D.	EACH GRATE		
4.51	1	3	222	896	261
	2	1	230		



ISOMETRIC VIEW



DETAIL "A"

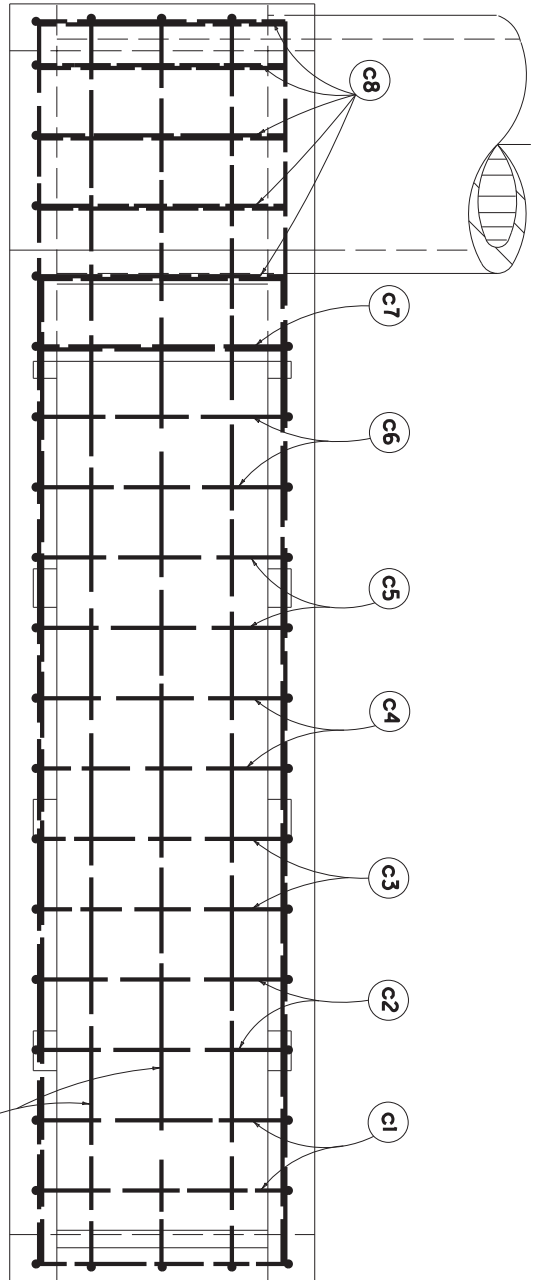
COUNTY OF	ITEM NO.	SHEET NO.
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SHEET 1 OF 2

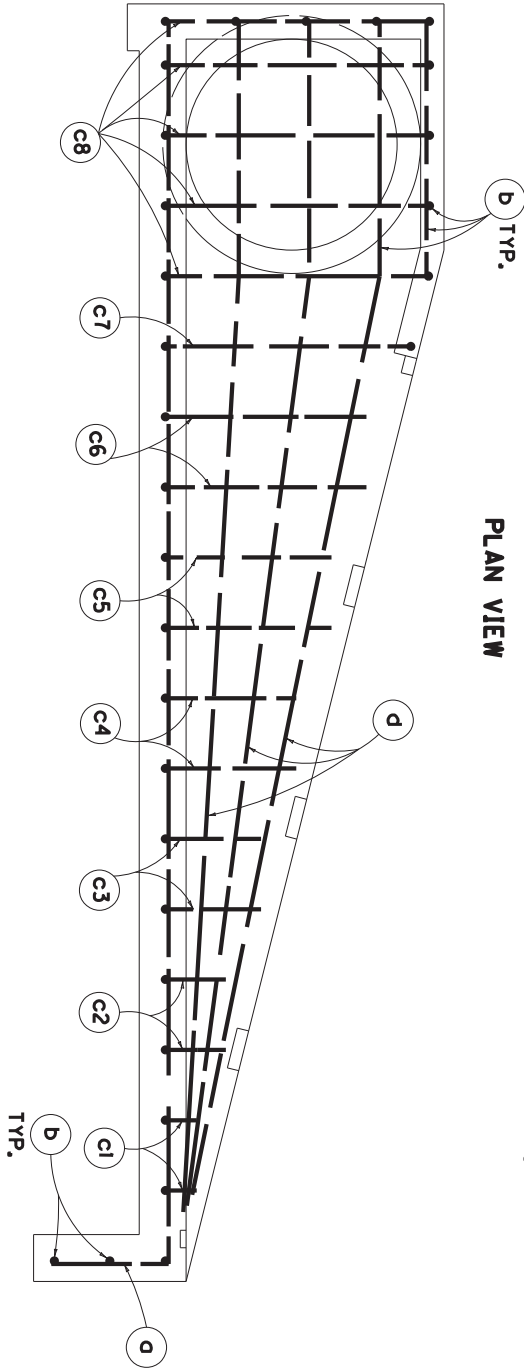
KENTUCKY
DEPARTMENT OF HIGHWAYS

**SAFETY TYPE
BOX INLET
(36")**

APPROVED: DATE: 06-04-2008



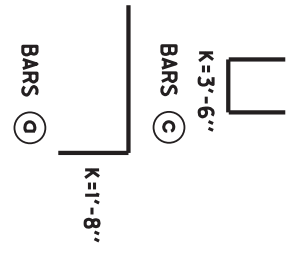
PLAN VIEW



ELEVATION VIEW

- NOTES**
1. NUMBER OF BARS IN ONE HEADWALL.
 2. DIMENSIONS ARE 0. TO 0. OF BARS.
 3. ALL BARS ARE STRAIGHT EXCEPT THOSE SHOWN BELOW.

BENT BAR SHAPES



MARK	NO	LGTH		K
		FT IN	FT IN	
36''				
D	4	5	19	6
B	4	16	3	6
C1	4	2	5	0
C2	4	2	5	10
C3	4	2	6	10
C4	4	2	7	10
C5	4	2	8	10
C6	4	2	9	10
C7	4	1	11	0
C8	4	5	11	6
D	4	6	13	4

SHEET 2 OF 2
 KENTUCKY
 DEPARTMENT OF HIGHWAYS
BILL OF REINFORCEMENT
SAFETY TYPE BOX INLET
 (36'')

APPROVED _____ DATE 06-04-2008
 BY _____

COUNTY OF	ITEM NO.	SHEET NO.
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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 2019* and *Standard Drawings, Edition of 2020*.

SUPPLEMENTAL SPECIFICATIONS

The contractor shall use the Supplemental Specifications that are effective at the time of letting.
The Supplemental Specifications can be found at the following link:

<http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx>

SPECIAL NOTE FOR BARCODE LABEL ON PERMANENT SIGNS

1.0 DESCRIPTION. Install barcode label on sheeting signs. Section references herein are to the Department's Standard Specifications for Road and Bridge Construction, current edition.

2.0 MATERIALS. The Department will provide the Contractor with a 2 inch x 1 inch foil barcode label for each permanent sheeting sign. A unique number will be assigned to each barcode label.

The Contractor shall contact the Operations and Pavement Management Branch in the Division of Maintenance at (502) 564-4556 to obtain the barcode labels.

3.0 CONSTRUCTION. Apply foil barcode label in the lower right quadrant of the sign back. Signs where the bottom edge is not parallel to the ground, the lowest corner of the sign shall serve as the location to place the barcode label. The barcode label shall be placed no less than one-inch and no more than three inches from any edge of the sign. The barcode must be placed so that the sign post does not cover the barcode label.

Barcodes shall be applied in an indoor setting with a minimum air temperature of 50°F or higher. Prior to application of the barcode label, the back of the sign must be clean and free of dust, oil, etc. If the sign is not clean, an alcohol swab shall be used to clean the area. The area must be allowed to dry prior to placement of the barcode label.

Data for each sign shall include the barcode number, MUTCD reference number, sheeting manufacturer, sheeting type, manufacture date, color of primary reflective surface, installation date, latitude and longitude using the North American Datum of 1983 (NAD83) or the State Plane Coordinates using an x and y ordinate of the installed location.

Data should be provided electronically on the TC 71-229 Sign Details Information and TC 71-230 Sign Assembly Information forms. The Contractor may choose to present the data in a different format provided that the information submitted to the Department is equivalent to the information required on the Department TC forms. The forms must be submitted in electronic format regardless of which type of form is used. The Department will not accept PDF or handwritten forms. These completed forms must be submitted to the Department prior to final inspection of the signs. The Department will not issue formal acceptance for the project until the TC 71-229 and TC-230 electronic forms are completed for all signs and sign assemblies on the project.

4.0 MEASUREMENT. The Department will measure all work required for the installation of the barcode label and all work associated with completion and submission of the sign inventory data (TC 71-229 and TC 71-230).

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

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

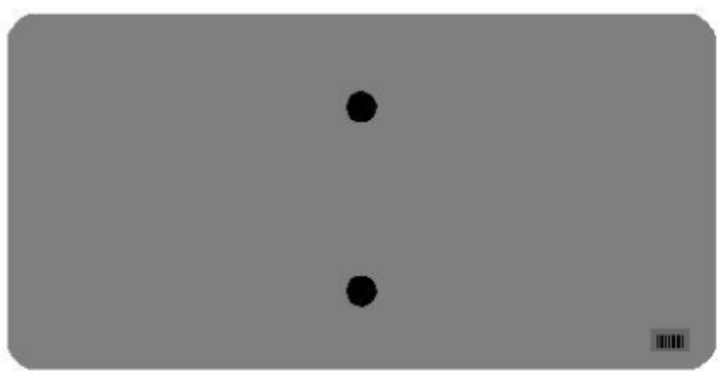
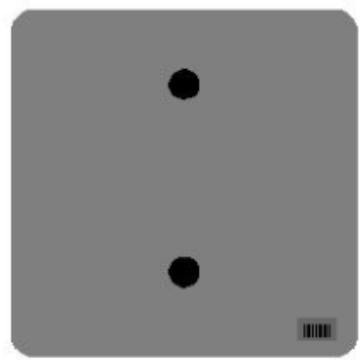
<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24631EC	Barcode Sign Inventory	Each

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

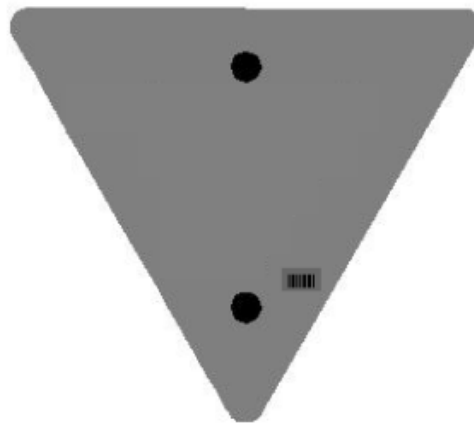
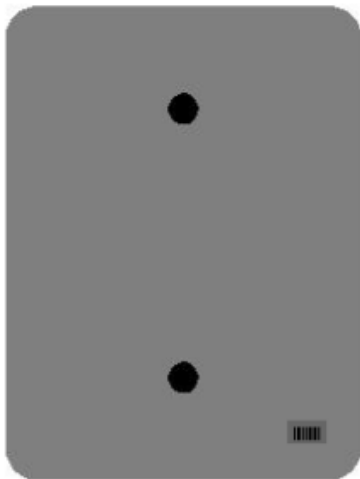
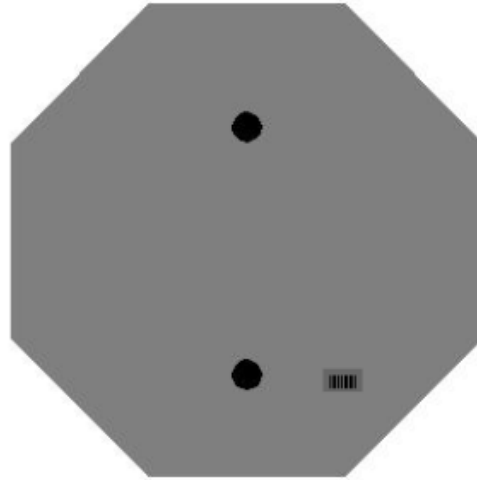
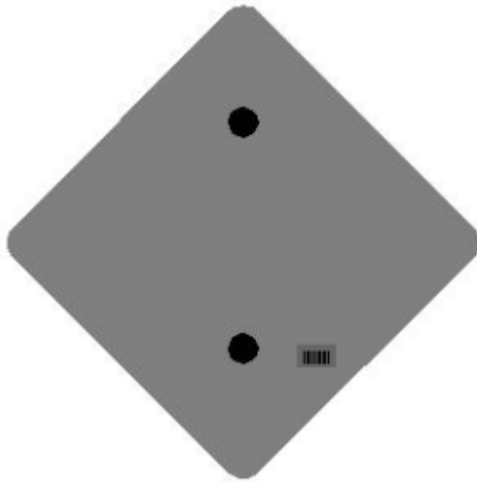
One Sign Post



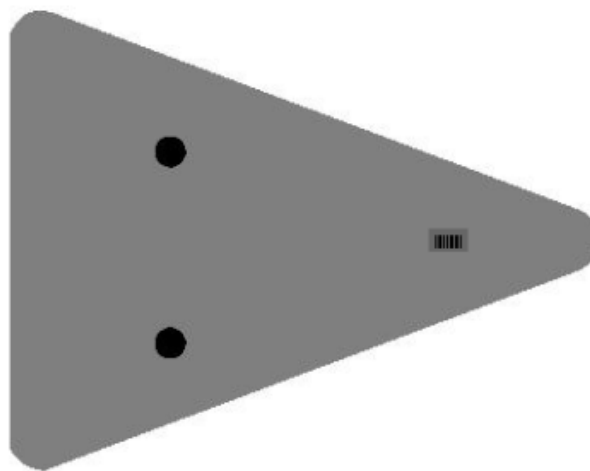
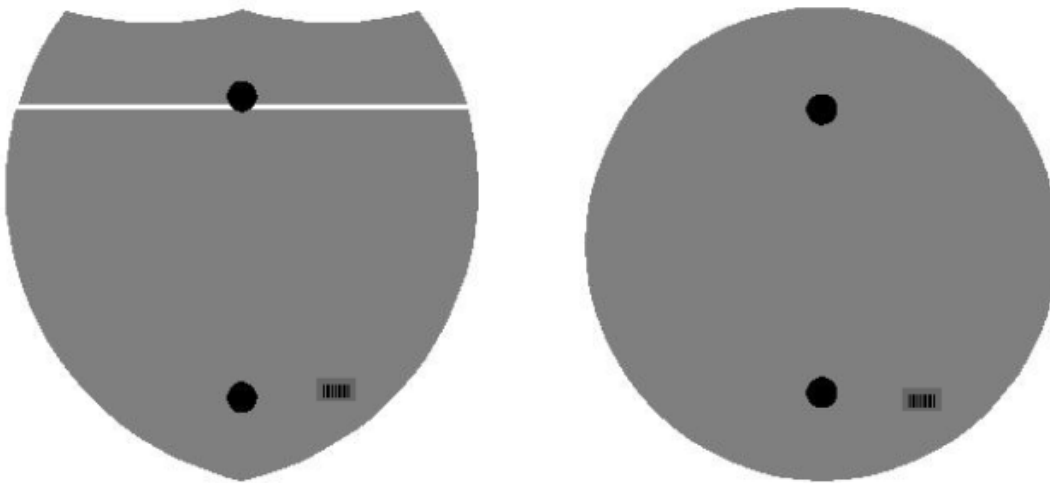
↑
2" Wide Post



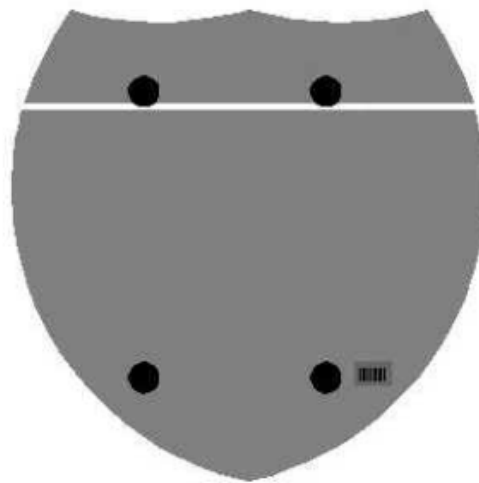
One Sign Post



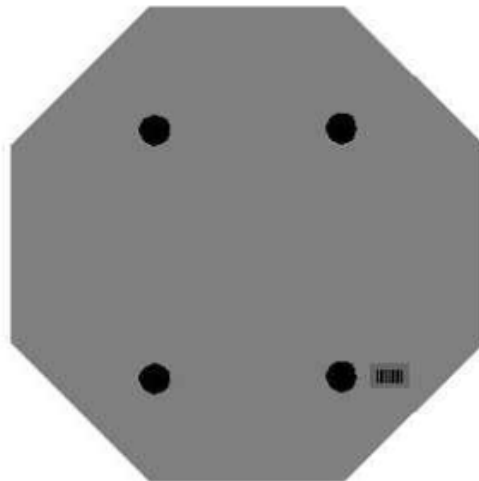
One Sign Post



Double Sign Post



Interstate
Shield

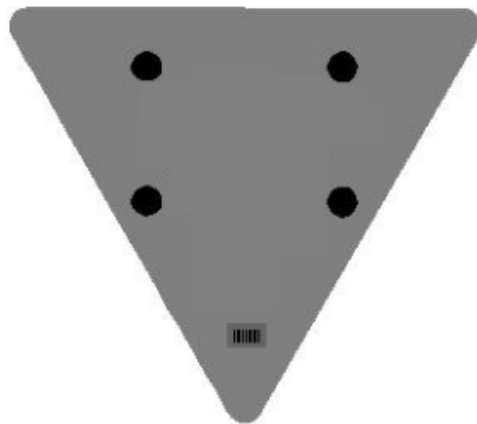


48" Stop

2 Post Signs



↑
2" Wide Post



2020 STANDARD DRAWINGS THAT APPLY

**ROADWAY
~ BARRIERS ~**

GUARDRAIL CONNECTORS TO BRIDGE ENDS

GUARDRAIL CONNECTOR TO BRIDGE END TYPE D.....	RBC-004-08
GUARDRAIL CONNECTOR TO BRIDGE END TYPE D NOTES.....	RBC-004N

TYPICAL BARRIER INSTALLATIONS

TYPICAL GUARDRAIL INSTALLATIONS.....	RBI-001-12
TYPICAL GUARDRAIL INSTALLATIONS.....	RBI-002-07
TYPICAL INSTALLATION FOR GUARDRAIL END TREATMENT TYPE 2A	RBI-003-09
INSTALLATION OF GUARDRAIL END TREATMENT TYPE 1.....	RBI-004-06

GUARDRAIL HARDWARE

STEEL BEAM GUARDRAIL (W-BEAM).....	RBR-001-13
GUARDRAIL COMPONENTS.....	RBR-005-11
GUARDRAIL TERMINAL SECTIONS	RBR-010-06
STEEL GUARDRAIL POSTS.....	RBR-015-06
TIMBER GUARDRAIL POSTS.....	RBR-016-05
GUARDRAIL END TREATMENT TYPE 1.....	RBR-020-07
GUARDRAIL END TREATMENT TYPE 2A.....	RBR-025-06
GUARDRAIL END TREATMENT TYPE 4A.....	RBR-035-12
GUARDRAIL END TREATMENT TYPE 7.....	RBR-050-08
GUARDRAIL END TREATMENT TYPE 7 ALTERNATE ANCHOR.....	RBR-051-01
DELINEATORS FOR GUARDRAIL.....	RBR-055-01
DELINEATORS AT NARROW SHOULDER BRIDGES.....	RBR-060

PAVED DITCHES, FLUME INLETS AND CHANNEL LININGS

CHANNEL LINING CLASS II AND III.....	RDD-040-05
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PIPE AND BOX CULVERT HEADWALLS

CONCRETE HEADWALLS FOR 12" - 27" CIRCULAR PIPE CULVERTS	RDH-005-02
PIPE CULVERT HEADWALLS, 0° SKEW (LAYOUT AND STEEL PATTERN)	RDH-110-02

TYPICAL DRAINAGE INSTALLATIONS

CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS (12" – 24" PIPE)	RDI-001-10
PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER PIPE.....	RDI-020-10
PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER, REINFORCED CONC. PIPE.....	RDI-021-01
EROSION CONTROL BLANKET SLOPE INSTALLATION.....	RDI-040-01
EROSION CONTROL BLANKET CHANNEL INSTALLATION.....	RDI-041-01

MISCELLANEOUS DRAINAGE

SECURITY DEVICES FOR FRAMES, GRATES AND LIDS.....	RDX-160-06
TEMPORARY SILT FENCE.....	RDX-210-03
SILT TRAP - TYPE A	RDX-220-05
SILT TRAP - TYPE B.....	RDX-225-01

Standard Drawings That Apply
Page 2 of 2

SILT TRAP - TYPE C..... RDX-230-01

~ GENERAL ~

CURVE WIDENING AND SUPERELEVATION

CURVE WIDENING AND SUPERELEVATION TRANSITIONSRGS-001-07
SUPERELEVATION FOR MULTILANE PAVEMENTS.....RGS-002-06

MISCELLANEOUS STANDARDS

MISCELLANEOUS STANDARDSRGX-001-06
GABION RETAINING WALLSRGX-050-02

~ PAVEMENT ~

MEDIANS, CURBS, APPROACHES, ENTRANCES, ETC.

APPROACHES, ENTRANCES, AND MAIL BOX TURNOUTRPM-110-07

TRAFFIC

~ PERMANENT ~

MARKERS

PAVEMENT STRIPING DETAILS FOR TWO LANE TWO WAY ROADWAYSTPM-175

RUMBLE STRIPS

SHOULDER & EDGELINE RUMBLE STRIPS PLACEMENT DETAILS TPR-115
EDGELINE RUMBLE STRIP DETAILS TWO LANE ROADWAYS TPR-120

~ TEMPORARY ~

TRAFFIC CONTROL

LANE CLOSURE TWO-LANE HIGHWAYTTC-100-05
LANE CLOSURE MULTI-LANE HIGHWAY CASE ITTC-115-04
LANE CLOSURE MULTI-LANE HIGHWAY CASE II.....TTC-120-04
SHOULDER CLOSURE.....TTC-135-03

DEVICES

DOUBLE FINES ZONE SIGNSTTD-120-03
PAVEMENT CONDITION WARNING SIGNS.....TTD-125-03
SPEED ZONE SIGNING FOR WORK ZONESTTD-130

STRIPING OPERATIONS

MOBILE OPERATION FOR PAINT STRIPING CASE II TTS-105-02

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

FHWA-1273 -- Revised May 1, 2012

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (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 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 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 administering agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

Standard Title VI/Non-Discrimination Assurances

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, **Federal Highway Administration**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor’s obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the **Federal Highway Administration** to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the **Federal Highway Administration**, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor’s noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the **Federal Highway Administration** may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the **Federal Highway Administration** may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

Standard Title VI/Non-Discrimination Statutes and Authorities

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 -- 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*)

EXECUTIVE BRANCH CODE OF ETHICS

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

KRS 11A.040 (7) provides:

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

KRS 11A.040 (9) states:

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

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

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

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

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

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 3 Fountain Place, Frankfort, Kentucky 40601; telephone (502) 564-7954.

"General Decision Number: KY20220038 02/25/2022

Superseded General Decision Number: KY20210038

State: Kentucky

Construction Type: Highway

Counties: Anderson, Bath, Bourbon, Boyd, Boyle, Bracken, Breckinridge, Bullitt, Carroll, Carter, Clark, Elliott, Fayette, Fleming, Franklin, Gallatin, Grant, Grayson, Greenup, Hardin, Harrison, Henry, Jefferson, Jessamine, Larue, Lewis, Madison, Marion, Mason, Meade, Mercer, Montgomery, Nelson, Nicholas, Oldham, Owen, Robertson, Rowan, Scott, Shelby, Spencer, Trimble, Washington and Woodford Counties in Kentucky.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

<p>If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$15.00 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 2022.
<p>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a

conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Modification Number	Publication Date
0	01/07/2022
1	02/11/2022
2	02/18/2022
3	02/25/2022

BRIN0004-003 06/01/2021

BRECKENRIDGE COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 29.57	14.75

 BRKY0001-005 06/01/2021

BULLITT, CARROLL, GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, & TRIMBLE COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 29.57	15.10

 BRKY0002-006 06/01/2021

BRACKEN, GALLATIN, GRANT, MASON & ROBERTSON COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 30.87	15.87

 BRKY0007-004 06/01/2021

BOYD, CARTER, ELLIOT, FLEMING, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 36.19	19.54

 BRKY0017-004 06/01/2021

ANDERSON, BATH, BOURBON, BOYLE, CLARK, FAYETTE, FRANKLIN, HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS, OWEN, SCOTT, WASHINGTON & WOODFORD COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 30.87	15.87

 CARP0064-001 04/01/2020

	Rates	Fringes
CARPENTER.....	\$ 29.81	19.96
Diver.....	\$ 45.09	19.96

PILEDRIVERMAN.....\$ 30.06 19.96

ELEC0212-008 06/07/2021

BRACKEN, GALLATIN and GRANT COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 32.32	19.85

ELEC0212-014 11/25/2019

BRACKEN, GALLATIN & GRANT COUNTIES:

	Rates	Fringes
Sound & Communication Technician.....	\$ 24.35	12.09

ELEC0317-012 06/01/2021

BOYD, CARTER, ELLIOT & ROWAN COUNTIES:

	Rates	Fringes
ELECTRICIAN (Wiremen).....	\$ 35.10	27.47

ELEC0369-007 05/31/2021

ANDERSON, BATH, BOURBON, BOYLE, BRECKINRIDGE, BULLITT, CARROLL,
 CLARK, FAYETTE, FRAONKLIN, GRAYSON, HARDIN, HARRISON, HENRY,
 JEFFERSON, JESSAMINE, LARUE, MADISON, MARION, MEADE, MERCER,
 MONTGOMERY, NELSON, NICHOLAS, OLDHAM, OWEN, ROBERTSON, SCOTT,
 SHELBY, SPENCER, TRIMBLE, WASHINGTON, & WOODFORD COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 33.85	18.72

ELEC0575-002 11/29/2021

FLEMING, GREENUP, LEWIS & MASON COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 35.00	19.76

ENGI0181-018 07/01/2021

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 34.80	17.85
GROUP 2.....	\$ 31.94	17.85
GROUP 3.....	\$ 32.39	17.85
GROUP 4.....	\$ 31.62	17.85

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; Gurrries;
Heavy Equipment Robotics Operator/Mechanic; High Lift;
Hoe-Type Machine; Hoist (Two or More Drums); Hoisting
Engine (Two or More Drums); Horizontal Directional Drill
Operator; Hydrocrane; Hyster; KeCal Loader; LeTourneau;
Locomotive; Mechanic; Mechanically Operated Laser Screed;
Mechanic Welder; Mucking Machine; Motor Scraper; Orangepeel
Bucket; Overhead Crane; Piledriver; Power Blade; Pumpcrete;
Push Dozer; Rock Spreader, attached to equipment; Rotary
Drill; Roller (Bituminous); Rough Terrain Crane; Scarifier;
Scoopmobile; Shovel; Side Boom; Subgrader; Tailboom;
Telescoping Type Forklift; Tow or Push Boat; Tower Crane
(French, German & other types); Tractor Shovel; Truck
Crane; Tunnel Mining Machines, including Moles, Shields or
similar types of Tunnel Mining Equipment

GROUP 2 - Air Compressor (Over 900 cu. ft. per min.);
Bituminous Mixer; Boom Type Tamping Machine; Bull Float;
Concrete Mixer (Under 21 cu. ft.); Dredge Engineer;
Electric Vibrator; Compactor/Self-Propelled Compactor;
Elevator (One Drum or Buck Hoist); Elevator (When used to
Hoist Building Material); Finish Machine; Firemen & Hoist
(One Drum); Flexplane; Forklift (Regardless of Lift
Height); Form Grader; Joint Sealing Machine; Outboard Motor
Boat; Power Sweeper (Riding Type); Roller (Rock); Ross
Carrier; Skid Mounted or Trailer Mounted Concrete Pump; Skid
Steer Machine with all Attachments; Switchman or Brakeman;
Throttle Valve Person; Tractair & Road Widening Trencher;
Tractor (50 H.P. or Over); Truck Crane Oiler; Tugger;
Welding Machine; Well Points; & Whirley Oiler

GROUP 3 - All Off Road Material Handling Equipment,
including Articulating Dump Trucks; Greaser on Grease
Facilities servicing Heavy Equipment

GROUP 4 - Bituminous Distributor; Burlap & Curing Machine;
Cement Gun; Concrete Saw; Conveyor; Deckhand Oiler; Grout
Pump; Hydraulic Post Driver; Hydro Seeder; Mud Jack; Oiler;
Paving Joint Machine; Power Form Handling Equipment; Pump;
Roller (Earth); Steerman; Tamping Machine; Tractor (Under
50 H.P.); & Vibrator

CRANES - with booms 150 ft. & Over (Including JIB), and where
the length of the boom in combination with the length of
the piling leads equals or exceeds 150 ft. - \$1.00 over
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.

IRON0044-009 06/01/2021

BRACKEN, GALLATIN, GRANT, HARRISON, ROBERTSON,
BOURBON (Northern third, including Townships of Jackson,
Millersburg, Ruddel Mills & Shawhan);
CARROLL (Eastern third, including the Township of Ghent);
FLEMING (Western part, excluding Townships of Beechburg, Colfax,
Elizaville, Flemingsburg, Flemingsburg Junction, Foxport,
Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills,
Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar

Plains, Ringos Mills, Tilton & Wallingford);
 MASON (Western two-thirds, including Townships of Dover,
 Lewisburg, Mays Lick, Maysville, Minerva, Moranburg,
 Murphysville, Ripley, Sardis, Shannon, South Ripley &
 Washington);
 NICHOLAS (Townships of Barefoot, Barterville, Carlisle,
 Ellisville, Headquarters, Henryville, Morningglory, Myers &
 Oakland Mills);
 OWEN (Townships of Beechwood, Bromley, Fairbanks, Holbrook,
 Jonesville, Long Ridge, Lusby's Mill, New, New Columbus, New
 Liberty, Owenton, Poplar Grove, Rockdale, Sanders, Teresita &
 Wheatley);
 SCOTT (Northern two-thirds, including Townships of Biddle,
 Davis, Delaplain, Elmville, Longlick, Muddy Ford, Oxford,
 Rogers Gap, Sadieville, Skinnersburg & Stonewall)

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 29.75	21.60
Structural.....	\$ 31.32	21.60

 IRON0070-006 06/01/2021

ANDERSON, BOYLE, BRECKINRIDGE, BULLITT, FAYETTE, FRANKLIN,
 GRAYSON, HARDIN, HENRY, JEFFERSON, JESSAMINE, LARUE, MADISON,
 MARION, MEADE, MERCER, NELSON, OLDHAM, SHELBY, SPENCER,
 TRIMBLE, WASHINGTON & WOODFORD
 BOURBON (Southern two-thirds, including Townships of Austerlity,
 Centerville, Clintonville, Elizabeth, Hutchison, Littlerock,
 North Middletown & Paris);
 CARROLL (Western two-thirds, including Townships of Carrollton,
 Easterday, English, Locust, Louis, Prestonville & Worthville);
 CLARK (Western two-thirds, including Townships of Becknerville,
 Flanagan, Ford, Pine Grove, Winchester & Wyandotte);
 OWEN (Eastern eighth, including Townships of Glenmary, Gratz,
 Monterey, Perry Park & Tacketts Mill);
 SCOTT (Southern third, including Townships of Georgetown, Great
 Crossing, Newtown, Stampling Ground & Woodlake);

	Rates	Fringes
IRONWORKER.....	\$ 31.09	23.75

 IRON0769-007 06/01/2021

BATH, BOYD, CARTER, ELLIOTT, GREENUP, LEWIS, MONTGOMERY & ROWAN
 CLARK (Eastern third, including townships of Bloomingdale,
 Hunt, Indian Fields, Kiddville, Loglick, Rightangele & Thomson);
 FLEMING (Townships of Beechburg, Colfax, Elizaville,
 Flemingsburg, Flemingsburg Junction, Foxport, Grange City,
 Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton,
 Pecksrige, Plummers Landing, Plummers Mill, Poplar Plains,
 Ringos Mills, Tilton & Wallingford);
 MASON (Eastern third, including Townships of Helena, Marshall,
 Orangeburg, Plumville & Springdale);
 NICHOLAS (Eastern eighth, including the Township of Moorefield
 Sprout)

Rates Fringes

IRONWORKER

ZONE 1.....	\$ 33.00	27.29
ZONE 2.....	\$ 33.40	27.29
ZONE 3.....	\$ 35.00	27.29

ZONE 1 - (no base rate increase) Up to 10 mile radius of Union Hall, 1643 Greenup Ave, Ashland, KY.

ZONE 2 - (add \$0.40 per hour to base rate) 10 to 50 mile radius of Union Hall, 1643 Greenup Ave, Ashland, KY.

ZONE 3 - (add \$2.00 per hour to base rate) 50 mile radius & over of Union Hall, 1643 Greenup Ave, Ashland, KY.

 LAB00189-003 07/01/2021

BATH, BOURBON, BOYD, BOYLE, BRACKEN, CARTER, CLARK, ELLIOTT, FAYETTE, FLEMING, FRANKLIN, GALLATIN, GRANT, GREENUP, HARRISON, JESSAMINE, LEWIS, MADISON, MASON, MERCER, MONTGOMERY, NICHOLAS, OWEN, ROBERTSON, ROWAN, SCOTT, & WOOLFORD COUNTIES

	Rates	Fringes
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Laborers:

GROUP 1.....	\$ 23.51	16.22
GROUP 2.....	\$ 23.76	16.22
GROUP 3.....	\$ 23.81	16.22
GROUP 4.....	\$ 24.41	16.22

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; 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

LAB00189-008 07/01/2021

ANDERSON, BULLITT, CARROLL, HARDIN, HENRY, JEFFERSON, LARUE,
MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE &
WASHINGTON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.51	16.22
GROUP 2.....	\$ 23.76	16.22
GROUP 3.....	\$ 23.81	16.22
GROUP 4.....	\$ 24.41	16.22

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement
Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter
Tender; Cement Mason Tender; Cleaning of Machines;
Concrete; Demolition; Dredging; Environmental - Nuclear,
Radiation, Toxic & Hazardous Waste - Level D; Flagperson;
Grade Checker; Hand Digging & Hand Back Filling; Highway
Marker Placer; Landscaping, Mesh Handler & Placer; Puddler;
Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail
& Fence Installer; Signal Person; Sound Barrier Installer;
Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper;
Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer);
Brickmason Tender; Mortar Mixer Operator; Scaffold Builder;
Burner & Welder; Bushhammer; Chain Saw Operator; Concrete
Saw Operator; Deckhand Scow Man; Dry Cement Handler;
Environmental - Nuclear, Radiation, Toxic & Hazardous Waste
- Level C; Forklift Operator for Masonary; Form Setter;
Green Concrete Cutting; Hand Operated Grouter & Grinder
Machine Operator; Jackhammer; Pavement Breaker; Paving
Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven
Georgia Buggy & Wheel Barrow; Power Post Hole Digger;
Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind
Trencher; Sand Blaster; Concrete Chipper; Surface Grinder;
Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman;
Gunnite Operator & Mixer; Grout Pump Operator; 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

LAB00189-009 07/01/2021

BRECKINRIDGE & GRAYSON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.51	16.22
GROUP 2.....	\$ 23.76	16.22
GROUP 3.....	\$ 23.81	16.22
GROUP 4.....	\$ 24.41	16.22

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; 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

 PAIN0012-005 06/11/2005

BATH, BOURBON, BOYLE, CLARK, FAYETTE, FLEMING, FRANKLIN,
 HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS,
 ROBERTSON, SCOTT & WOODFORD COUNTIES:

	Rates	Fringes
PAINTER		
Bridge/Equipment Tender and/or Containment Builder..	\$ 18.90	5.90
Brush & Roller.....	\$ 21.30	5.90
Elevated Tanks; Steeplejack Work; Bridge &		

Lead Abatement.....	\$ 22.30	5.90
Sandblasting & Waterblasting.....	\$ 22.05	5.90
Spray.....	\$ 21.80	5.90

 PAIN0012-017 05/01/2015

BRACKEN, GALLATIN, GRANT, MASON & OWEN COUNTIES:

	Rates	Fringes
PAINTER (Heavy & Highway Bridges - Guardrails - Lightpoles - Striping) Bridge Equipment Tender and Containment Builder.....	\$ 20.73	9.06
Brush & Roller.....	\$ 23.39	9.06
Elevated Tanks; Steeplejack Work; Bridge & Lead Abatement.....	\$ 24.39	9.06
Sandblasting & Water Blasting.....	\$ 24.14	9.06
Spray.....	\$ 23.89	9.06

 PAIN0118-004 06/01/2018

ANDERSON, BRECKINRIDGE, BULLITT, CARROLL, GRAYSON, HARDIN,
 HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY,
 SPENCER, TRIMBLE & WASHINGTON COUNTIES:

	Rates	Fringes
PAINTER Brush & Roller.....	\$ 22.00	12.52
Spray, Sandblast, Power Tools, Waterblast & Steam Cleaning.....	\$ 23.00	12.52

 PAIN1072-003 12/01/2021

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS and ROWAN COUNTIES

	Rates	Fringes
Painters: Bridges; Locks; Dams; Tension Towers & Energized Substations.....	\$ 35.06	21.15
Power Generating Facilities.....	\$ 31.82	21.15

 PLUM0248-003 06/01/2021

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
Plumber and Steamfitter.....	\$ 38.00	21.60

 PLUM0392-007 06/01/2018

BRACKEN, CARROLL (Eastern Half), GALLATIN, GRANT, MASON, OWEN &
 ROBERTSON COUNTIES:

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 32.01	19.67

PLUM0502-003 08/01/2021		

BRECKINRIDGE, BULLITT, CARROLL (Western Half), FRANKLIN
 (Western three-fourths), GRAYSON, HARDIN, HENRY, JEFFERSON,
 LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE &
 WASHINGTON COUNTIES

	Rates	Fringes
PLUMBER.....	\$ 38.07	20.78

SUKY2010-160 10/08/2001		

	Rates	Fringes
Truck drivers:		
GROUP 1.....	\$ 16.57	7.34
GROUP 2.....	\$ 16.68	7.34
GROUP 3.....	\$ 16.86	7.34
GROUP 4.....	\$ 16.96	7.34

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Mobile Batch Truck Tender

GROUP 2 - Greaser; Tire Changer; & Mechanic Tender

GROUP 3 - Single Axle Dump; Flatbed; Semi-trailer or Pole
 Trailer when used to pull building materials and equipment;
 Tandem Axle Dump; Distributor; Mixer; & Truck Mechanic

GROUP 4 - Euclid & Other Heavy Earthmoving Equipment &
 Lowboy; Articulator Cat; 5-Axle Vehicle; Winch & A-Frame
 when used in transporting materials; Ross Carrier; Forklift
 when used to transport building materials; & Pavement
 Breaker

WELDERS - Receive rate prescribed for craft performing
 operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
 for Federal Contractors applies to all contracts subject to the
 Davis-Bacon Act for which the contract is awarded (and any
 solicitation was issued) on or after January 1, 2017. If this
 contract is covered by the EO, the contractor must provide
 employees with 1 hour of paid sick leave for every 30 hours
 they work, up to 56 hours of paid sick leave each year.
 Employees must be permitted to use paid sick leave for their
 own illness, injury or other health-related needs, including
 preventive care; to assist a family member (or person who is
 like family to the employee) who is ill, injured, or has other
 health-related needs, including preventive care; or for reasons
 resulting from, or to assist a family member (or person who is
 like family to the employee) who is a victim of, domestic
 violence, sexual assault, or stalking. Additional information
 on contractor requirements and worker protections under the EO

is available at
<https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (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 National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board

U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

Fringe benefit amounts are applicable for all hours worked except when otherwise noted.

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U. S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U. S. Bureau of Apprenticeship and Training.

The contractor shall submit to the Contracting Officer, written evidence of the established apprenticeship-journeyman ratios and wage rates in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

TO: EMPLOYERS/EMPLOYEES

PREVAILING WAGE SCHEDULE:

The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the number of hours worked in each classification at the prescribed hourly base rate.

OVERTIME:

Overtime is to be paid to an employee at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek. Wage violations or questions should be directed to the designated Engineer or the undersigned.

Director
Division of Construction Procurement
Frankfort, Kentucky 40622
502-564-3500

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
10.8%	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 Jessamine County.

PART IV
INSURANCE

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

PART V
BID ITEMS

PROPOSAL BID ITEMS

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Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	638.00	TON		\$	
0020	00003		CRUSHED STONE BASE	69.00	TON		\$	
0030	00078		CRUSHED AGGREGATE SIZE NO 2	297.00	TON		\$	
0040	00080		CRUSHED AGGREGATE SIZE NO 23	306.00	TON		\$	
0050	00100		ASPHALT SEAL AGGREGATE	70.00	TON		\$	
0060	00103		ASPHALT SEAL COAT	10.00	TON		\$	
0070	00190		LEVELING & WEDGING PG64-22	1,039.00	TON		\$	
0080	00212		CL2 ASPH BASE 1.00D PG64-22	440.00	TON		\$	
0090	00307		CL2 ASPH SURF 0.38B PG64-22	1,371.00	TON		\$	
0100	00356		ASPHALT MATERIAL FOR TACK	4.00	TON		\$	
0110	02676		MOBILIZATION FOR MILL & TEXT (JESSAMINE US 68)	1.00	LS		\$	
0120	02677		ASPHALT PAVE MILLING & TEXTURING	1,295.00	TON		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0130	01987		DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	169.00	EACH		\$	
0140	02014		BARRICADE-TYPE III	4.00	EACH		\$	
0150	02159		TEMP DITCH	12,690.00	LF		\$	
0160	02160		CLEAN TEMP DITCH	6,345.00	LF		\$	
0170	02360		GUARDRAIL TERMINAL SECTION NO 1	3.00	EACH		\$	
0180	02367		GUARDRAIL END TREATMENT TYPE 1	8.00	EACH		\$	
0190	02369		GUARDRAIL END TREATMENT TYPE 2A	2.00	EACH		\$	
0200	02371		GUARDRAIL END TREATMENT TYPE 7	1.00	EACH		\$	
0210	02378		GUARDRAIL CONNECTOR TO BRIDGE END TY D	1.00	EACH		\$	
0220	02381		REMOVE GUARDRAIL	8,388.00	LF		\$	
0230	02391		GUARDRAIL END TREATMENT TYPE 4A	2.00	EACH		\$	
0240	02399		EXTRA LENGTH GUARDRAIL POST	99.00	EACH		\$	
0250	02483		CHANNEL LINING CLASS II	2,567.00	TON		\$	
0260	02562		TEMPORARY SIGNS	800.00	SQFT		\$	
0270	02575		DITCHING AND SHOULDERING	27,055.00	LF		\$	
0280	02603		FABRIC-GEOTEXTILE CLASS 2	1,809.00	SQYD		\$	
0290	02610		RETAINING WALL-GABION	27.00	CUYD		\$	
0300	02650		MAINTAIN & CONTROL TRAFFIC (JESSAMINE US 68)	1.00	LS		\$	
0310	02671		PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		\$	
0320	02697		EDGE LINE RUMBLE STRIPS	15,079.00	LF		\$	
0330	02701		TEMP SILT FENCE	12,690.00	LF		\$	
0340	02703		SILT TRAP TYPE A	25.00	EACH		\$	
0350	02704		SILT TRAP TYPE B	25.00	EACH		\$	
0360	02705		SILT TRAP TYPE C	25.00	EACH		\$	
0370	02706		CLEAN SILT TRAP TYPE A	25.00	EACH		\$	
0380	02707		CLEAN SILT TRAP TYPE B	25.00	EACH		\$	
0390	02708		CLEAN SILT TRAP TYPE C	25.00	EACH		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0400	02726		STAKING (JESSAMINE US 68)	1.00	LS		\$	
0410	03234		RAILROAD RAILS-DRILLED	3,856.00	LF		\$	
0420	03235		EXCAVATION AND BACKFILL	87.00	CUYD		\$	
0430	03236		CRIBBING	5,123.00	SQFT		\$	
0440	03269		TRIM & REMOVE TREES & BRUSH	10,710.00	LF		\$	
0450	05950		EROSION CONTROL BLANKET	14,100.00	SQYD		\$	
0460	05952		TEMP MULCH	78,651.00	SQYD		\$	
0470	05953		TEMP SEEDING AND PROTECTION	59,048.00	SQYD		\$	
0480	05963		INITIAL FERTILIZER	3.00	TON		\$	
0490	05964		MAINTENANCE FERTILIZER	3.00	TON		\$	
0500	05985		SEEDING AND PROTECTION	41,954.00	SQYD		\$	
0510	05992		AGRICULTURAL LIMESTONE	36.00	TON		\$	
0520	06511		PAVE STRIPING-TEMP PAINT-6 IN	9,429.00	LF		\$	
0530	06515		PAVE STRIPING-PERM PAINT-6 IN	9,429.00	LF		\$	
0540	20191ED		OBJECT MARKER TY 3	10.00	EACH		\$	
0550	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	7,919.00	LF		\$	
0560	23229EC		HIGH FRICTION SURFACE TREATMENT	1,088.00	SQYD		\$	
0570	23312EC		ROCK REMOVAL	2,191.00	CUYD		\$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0580	00440		ENTRANCE PIPE-15 IN	50.00	LF		\$	
0590	00441		ENTRANCE PIPE-18 IN	30.00	LF		\$	
0600	00462		CULVERT PIPE-18 IN	459.00	LF		\$	
0610	00464		CULVERT PIPE-24 IN	27.00	LF		\$	
0620	01204		PIPE CULVERT HEADWALL-18 IN	2.00	EACH		\$	
0630	01208		PIPE CULVERT HEADWALL-24 IN	2.00	EACH		\$	
0640	01310		REMOVE PIPE	136.00	LF		\$	
0650	01726		SAFETY BOX INLET-18 IN SDB-1	11.00	EACH		\$	
0660	02625		REMOVE HEADWALL	13.00	EACH		\$	
0670	08100		CONCRETE-CLASS A (FOR PIPE END ANCHORS)	2.00	CUYD		\$	
0680	24575ES610		HEADWALL (SLOPED & MITERED CONCRETE FOR 15 INCH PIPE)	2.00	EACH		\$	
0690	24575ES610		HEADWALL (SLOPED & MITERED CONCRETE FOR 24 INCH PIPE)	2.00	EACH		\$	
0700	24575ES610		HEADWALL (SLOPED & MITERED CONCRETE FOR 18 INCH PIPE)	7.00	EACH		\$	

Section: 0004 - SIGNALIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0710	02565		OBJECT MARKER TYPE 2	16.00	EACH		\$	
0720	06406		SBM ALUM SHEET SIGNS .080 IN	62.00	SQFT		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0730	06407		SBM ALUM SHEET SIGNS .125 IN	17.00	SQFT		\$	
0740	06410		STEEL POST TYPE 1	174.00	LF		\$	
0750	21134ND		REMOVE-STORE AND REINSTALL SIGN	30.00	EACH		\$	
0760	21373ND		REMOVE SIGN	12.00	EACH		\$	
0770	24631EC		BARCODE SIGN INVENTORY	40.00	EACH		\$	

Section: 0005 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0780	02568		MOBILIZATION	1.00	LS		\$	
0790	02569		DEMOBILIZATION	1.00	LS		\$	