



**CALL NO. 335**

**CONTRACT ID. 212210**

**BUTLER COUNTY**

**FED/STATE PROJECT NUMBER FD04 016 0231 008-009**

**DESCRIPTION BOWLING GREEN ROAD (US 231)**

**WORK TYPE CULVERT REPLACEMENT**

**PRIMARY COMPLETION DATE 8/31/2021**

**LETTING DATE: April 23,2021**

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 am EASTERN DAYLIGHT TIME April 23,2021. Bids will be publicly announced at 10:00 am EASTERN DAYLIGHT TIME.

**NO PLANS ASSOCIATED WITH THIS PROJECT.**

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

**TABLE OF CONTENTS**

PART I	SCOPE OF WORK <ul style="list-style-type: none"><li>• PROJECT(S), COMPLETION DATE(S), &amp; LIQUIDATED DAMAGES</li><li>• CONTRACT NOTES</li><li>• STATE CONTRACT NOTES</li><li>• SURFACING AREAS</li><li>• ASPHALT MIXTURE</li><li>• INCIDENTAL SURFACING</li><li>• COMPACTION OPTION B</li><li>• SPECIAL NOTE(S) APPLICABLE TO PROJECT</li><li>• LIQUIDATED DAMAGES</li><li>• WASTE AND BORROW SITES</li><li>• EDGE KEY (BY TON)</li><li>• GUARDRAIL</li><li>• ASPHALT MILLING AND TEXTURING</li><li>• TYPICAL SECTION DIMENSIONS</li><li>• TRAFFIC CONTROL PLAN 2 LANE</li><li>• EROSION CONTROL PLAN FOR MAINTENANCE PROJECTS</li><li>• SKETCH MAP(S)</li><li>• SUMMARY SHEET(S)</li><li>• TYPICAL SECTION(S)</li><li>• DETAIL SHEET(S)</li><li>• GUARDRAIL DELIVERY VERIFICATION SHEET</li></ul>
PART II	SPECIFICATIONS AND STANDARD DRAWINGS <ul style="list-style-type: none"><li>• SPECIFICATIONS REFERENCE</li><li>• SUPPLEMENTAL SPECIFICATION</li><li>• [SN-1I] PORTABLE CHANGEABLE SIGNS</li><li>• [SN-9V] ALUMINUM &amp; STEEL STRUCTURAL PLATE BOX CULVERT</li><li>• 2020 STANDARD DRAWINGS THAT APPLY</li></ul>
PART III	EMPLOYMENT, WAGE AND RECORD REQUIREMENTS <ul style="list-style-type: none"><li>• LABOR AND WAGE REQUIREMENTS</li><li>• EXECUTIVE BRANCH CODE OF ETHICS</li><li>• KENTUCKY EQUAL EMPLOYMENT OPPORTUNITY ACT OF 1978 LOCALITY / STATE</li><li>• PROJECT WAGE RATES / STATE FUNDED</li></ul>
PART IV	INSURANCE
PART V	BID ITEMS

# **PART I**

## **SCOPE OF WORK**

**ADMINISTRATIVE DISTRICT - 03**

**CONTRACT ID - 212210**  
**FD04 016 0231 008-009**  
**COUNTY - BUTLER**  
**PCN - MP01602312101**  
**FD04 016 0231 008-009**

BOWLING GREEN ROAD (US 231) (MP 8.030) BEGIN 0.05 MILES NORTH OF RENFROW CREEK EXTENDING NORTH TO 0.07 MILES SOUTH OF KY 79 (MP 8.130), A DISTANCE OF 0.10 MILES.CULVERT REPLACEMENT SYP NO. 03-00163.00.  
GEOGRAPHIC COORDINATES LATITUDE 37:11:32.00 LONGITUDE 86:42:16.00

**COMPLETION DATE(S):**  
COMPLETED BY 08/31/2021                      APPLIES TO ENTIRE CONTRACT

## **CONTRACT NOTES**

### **PROPOSAL ADDENDA**

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

### **BID SUBMITTAL**

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

### **JOINT VENTURE BIDDING**

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

### **UNDERGROUND FACILITY DAMAGE PROTECTION**

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

### **REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY**

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

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

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

### **SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT**

Questions about projects during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by fax (502) 564-7299 or email to [kytc.projectquestions@ky.gov](mailto:kytc.projectquestions@ky.gov). The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

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

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

## **SPECIAL NOTE FOR RECIPROCAL PREFERENCE**

### **RECIPROCAL PREFERENCE TO BE GIVEN BY PUBLIC AGENCIES TO RESIDENT BIDDERS**

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

April 30, 2018



### **SURFACING AREAS**

The Department estimates the mainline surfacing width to be 24 feet.

The Department estimates the total mainline area to be surfaced to be 1,408 square yards.

The Department estimates the DGA shoulder width to be varied 4 to 6 feet on each side.

The Department estimates the total shoulder area to receive DGA to be 704 square yards.

### **ASPHALT MIXTURE**

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

### **INCIDENTAL SURFACING**

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

### **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 FOR CULVERT REPLACEMENT

I. DESCRIPTION

Perform all work in accordance with the Department's 2019 Standard and Supplemental Specifications, applicable Special Provisions and Special Notes, and Standard and Sepia Drawings, except as hereafter specified. Article references are to the Standard Specifications. This work shall consist of:

- (1) Site preparation;
- (2) Clearing and grubbing and removal of all obstructions;
- (3) Removal of existing structure;
- (4) Drilling and blasting, if required, and common and solid rock excavation;
- (5) Constructing aluminum or steel structural plate box culvert;
- (6) Constructing embankment, roadway, pavement, and shoulders;
- (7) Guardrail and end treatments;
- (8) Restoration, final dressing, cleanup, and seeding;
- (9) Maintain and control traffic; and
- (10) Any other work as specified by this contract.

I. MATERIALS AND DESIGN

All materials shall be sampled and tested in accordance with the Department's Sampling Manual. 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 unless otherwise specified in these Notes.

Scope of Service required by Culvert Manufacturer to KYTC:

Mandatory On-Site Pre-Construction Meeting by a direct employee of culvert manufacturer.
Mandatory “Day Of” On-Site visit by culvert manufacturer when material is delivered for material inspection
Minimum two (2) On-Site Consultation visits during construction by a direct employee of culvert manufacturer
Signed & Sealed Fabrication, Plate Layout and Calculations by manufacturer at time of Solicitation
The Aluminum Box Culvert must be provided by a supplier that has a minimum of two (2) registered professional engineers on staff that are dedicated to the design of these type of structures. Supplier must provide these names, P.E. license numbers, and dates of hire.
Delivery within 20 working days of approved submittal drawings
Assembly of ALBC by manufacturer “Certified Assembler” see scope of work provided below

**A. Aluminum Structural Plate Box Culvert.** Provide a **span of 12'-11" Span x 6' Rise A**, headwalls or end walls, corner panels, wing walls, and toe walls, meeting the requirements of Special Note for Aluminum and Steel Structural Plate Culverts 9V. Design for fill cover height of 1.4' minimum and 4'-0" maximum and clear roadway width of 24 feet as shown on the drawings. Preformed footings will be allowed on this project. Prior to fabrication, furnish the Engineer shop drawings approved by a "Registered Professional Engineer" licensed in Kentucky. With each shipment of the structural plates and accessories, provide a certification that all materials furnished comply with the applicable specifications and these special notes. Prior to acceptance, the Department reserves the right to sample and test the structural plates, and accessories at any time. Materials not conforming to contract requirements are subject to rejection, whether in place or not.

**B. Foundation Preparation and Bedding.** See Special Note 9V.

**C. Culvert Backfill.** Contrary to Special Note 9V, use only Flowable Fill for the backfilling of the proposed structure.

**D. Guardrail.** See Special Notes for Guardrail

**E. Pavement and Shoulders.** Use Dense Graded Base, Class 2 Asphalt Base 1.0D PG64-22, and Class 2 Asphalt Surface 0.38D PG64-22.

**F. Seeding and Protection.** Use Seed Mixture Type I.

**G. Erosion Control.** See Special Notes for Erosion Control Plan.

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

### **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; tree removal, common and solid rock excavation, foundation preparation, backfilling and embankment in place; saw cutting; removal of existing culvert, obstructions, or any other items; disposal of materials, waste, and debris; temporary and permanent erosion control; restoration, final dressing, cleanup, and seeding and protection. Perform all site preparation only as approved or directed by the Engineer.

**C. Excavation and Removal of Existing Structures.** Sawcut pavement to a neat edge and remove the existing culvert. Be responsible for all common and solid rock excavation, pavement removal, and removal of existing structure. Provide positive drainage of slopes and ditches at all times during and upon completion of construction. Waste all removed materials at sites off the right of way obtained by the Contractor at no additional cost to the

Department. Perform all excavation and removal of existing structure only as approved or directed by the Engineer.

**D. Structure Excavation.** Be responsible for all excavation required for foundation preparation, box culvert, head walls or end walls, wing walls, toe walls, and all other excavation required by the work. Excavate rock in channel as required to allow for installation of bedding and culvert with the designed fill cover height. Provide positive drainage of slopes and ditches at all times during and upon completion of construction. Waste all excavation at sites off the right of way obtained by the Contractor at no additional cost to the Department. Perform all structure excavation only as approved or directed by the Engineer.

**E. Foundation Preparation and Bedding.** Perform foundation preparation as outlined in Special Note 9V.

**F. Aluminum Structural Plate Box Culvert.** Construct the pipe arch culvert in accordance with Special Note 9V, except as specified in these notes. Provide for the culvert manufacturer to furnish an expert field engineer on site during all phases of the fabrication, construction, backfilling, and guardrail installation over culvert for consulting purposes. Deliver the culvert fully assembled or assemble the box culvert adjacent to the project site prior to any excavation or structure removal. Be responsible for field layout and survey of the proposed culvert. Obtain the Engineer's approval of the final centerline, flow line and skew prior to backfilling. Provide positive drainage upon completion of the project.

**G. Head walls, End Walls, Wing Walls, Toe Walls.** Construct head walls, end walls, wing walls, and toe walls according to the box culvert manufacturer's approved design or as approved by the Engineer. Furnish geotextile fabric class 2 and install according to manufacturer's approved design or as approved by the Engineer. Geotextile fabric will be considered incidental to Aluminum Pipe Arch Culvert.

**H. Backfill and Embankment.** Construct flowable backfill and embankments as directed by the Engineer. Warp finished slopes to match existing undisturbed slopes as directed by the Engineer. Provide positive drainage of slopes and ditches at all times during and upon completion of construction.

**I. Clean and Re-establish the Existing Shoulders and Ditches.** Grade and restore the shoulders and ditches in the project limits to match the existing/newly constructed slopes or adjacent features to be left in place or as directed by the Engineer. Provide positive drainage of slopes and ditches at all times during and upon completion of construction.

**J. Pavement & Shoulder Restoration.** Restore pavement and shoulders over the culvert trench and widen approaches as shown on the typical or as directed by the Engineer and transition to match the adjacent undisturbed typical section. Provide positive drainage of pavement and shoulders at all times during and upon completion of construction. After constructing culvert, backfill, and embankment, construct crushed stone base and approach

base widening and reopen the road to traffic. After opening to traffic, correct settlement as applicable with asphalt base, until the Engineer determines the culvert backfill and base are sufficiently stabilized to allow milling and placement of asphalt surface. Restore pavement and shoulders outside the culvert trench and base widening areas.

**L. Guardrail.** See Special Notes for Guardrail.

**M. Final Dressing, Clean Up, and Seeding and Protection.** After all work is completed, completely remove debris from the construction site. Perform Class A Final Dressing on all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with Seed Mixture Type I and place erosion control blanket as designated by the engineer.

**N. Restoration.** Be responsible for all damage to public an/or private property resulting from the work. Restore all damaged features in like kind materials and design.

**O. On-Site Inspection.** Make a thorough inspection of the site prior to submitting a bid and be thoroughly familiar with existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid as evidence of this inspection having been made and will not honor any claims resulting from site conditions.

**P. Caution.** Do not take information shown on the plans and in this proposal and the types and quantities of work listed as an accurate or complete evaluation of the material and conditions to be encountered during construction. Without regard to the materials encountered, all roadway excavation shall be unclassified. It shall be distinctly understood that any reference to rock, earth, or any other material on the plans or cross sections, whether in numbers or words, letters, or lines, is solely for the Department's information and is not to be taken as an indication of classified excavation or the quantity of either rock, earth, or any other material involved. The bidder must draw his own conclusion as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the conditions encountered are not in accordance with the information shown.

**Q. Right-of-Way Limits.** The department has not determined exact limits of 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.

**R. Utility Clearance.** Work around and do not disturb existing utilities. It is not anticipated that any utility facilities will require relocation and/or adjustment; however, in the event utilities are discovered, the utility companies will work concurrently with the Contractor while relocating their facilities. 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.

#### IV. METHOD OF MEASUREMENT

Only the bid items listed will be measured for payment. All other items required to complete the work shall be incidental to the listed items.

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

**B. Site Preparation.** Site Preparation will be measured as one lump sum.

**C. Erosion Control.** See Special Notes for Erosion Control Plan, but will be considered incidental to Site Preparation.

**D. Clearing and Grubbing, Excavation and Embankment.** Contrary to Sections 202, 204, 205, 206, 603 and special note 9V, Clearing and Grubbing, Roadway Excavation, Structure Excavation, Borrow Excavation, Foundation Preparation, Embankment in Place, and granular backfill will not be measured for separate payment, but shall be incidental to Site Preparation.

**E. Backfill Material.** Backfill materials will not be measured for payment but shall be incidental to the box culvert.

**F. Aluminum Structural Plate Box Culvert.** See Special Note 9V; however, contrary to Special Note 9V, foundation preparation, culvert design, manufacturer's technical representative, head walls, end walls, wing walls, corner panels and toe walls will not be measured for separate payment, but shall be incidental to the box culvert.

**G. Restoration, Final Dressing, Clean Up, and Seeding and Protection.** Restoration, final dressing, clean up, and seeding and protection, erosion control, and permanent seeding will not be measured for payment, but shall be incidental to Site Preparation.

#### V. Basis of Payment

No direct payment made other than for the bid items listed. All other items required to complete the construction shall be incidental to the bid items listed.

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

**B. Aluminum Structural Plate Box Culvert.** Payment at the contract unit price per linear foot shall be full compensation for all materials, equipment, labor and incidentals necessary to complete the work as specified in these notes and the Standard Specifications for culvert design and manufacturer's representative; foundation preparation, structural plate box culvert, headwalls, end walls, corner panels, wing walls, and toe walls.

**C. Site Preparation.** Payment at the contract lump sum unit price shall be full compensation for all materials, equipment, labor, and incidentals, including, but not limited

to; bridge removal; clearing and grubbing; common and solid rock excavation, backfilling and embankment in place; removal of obstructions, or any other items; disposal of materials; cleaning inlet and outlet ditches; restoration, final dressing, and cleanup.

### **SPECIAL NOTE FOR LIQUIDATED DAMAGES**

In addition to the Liquidated Damages for contract completion specified in Section 108.09. If work is delayed by inclement weather, the minimum work required to place traffic on this pavement shall be resumed immediately as soon as weather permits.

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

## SPECIAL NOTE FOR EDGE KEY

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

### EDGE KEY



**Thickness = 1.0 Inches**

**L = 100 LF**

**L = Length of Edge Key**

## SPECIAL NOTES FOR GUARDRAIL

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### I. DESCRIPTION

Except as specified herein, perform all work in accordance with the Department's Standard and Supplemental Specifications 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) Remove existing guardrail systems; (3) Construct Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections, as applicable; (4) Delineators for guardrail; (5) Maintain and control traffic; and (6) all other work specified as part of this contract.

### II. MATERIALS

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

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

**B. Guardrail.** Furnish guardrail system components according to section 814 and the Standard and Sepia Drawings; except use steel posts only, no alternates.

**C. Delineators for Guardrail. Delineators for Guardrail.** Furnish Delineators for Guardrail according to the Sepia Drawings.

**D. Erosion Control.** See Special Notes 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 according to Section 719, except that the Contractor will take possession of all concrete posts and all concrete associated with existing bridge and/or guardrail end treatments. Locate all disposal areas off the Right of Way at sites obtained by the Contractor at no additional cost to the Department. Be responsible for all site preparation, including but not limited to, clearing and grubbing, excavation, embankment, and removal of all obstructions or any other items; regrading, reshaping, adding and compacting of suitable materials on the

## Guardrail

### Page 2 of 3

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 and 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. Locations listed on the summary and/or shown on the drawings are approximate only. The Engineer will determine the exact termini for individual guardrail installations at the time of construction. Unless directed otherwise by the Engineer, provide a minimum two (2) foot shoulder width. Construct radii at entrances and road intersections as directed by the Engineer.

Erect guardrail to the lines and grades shown on 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. Support cantilevered terminal sections with an additional post.

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. Delineators for Guardrail.** Install delineators for guardrail according to the Standard and Sepia Drawings.

**E. 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.

**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 as a result of guardrail operations at no additional cost to the Department.

**G. Right of Way Limits.** The Department has not established exact limits of the Right-of-Way. Limit work activities to obvious Right-of-Way, permanent or temporary easements,

Guardrail  
Page 3 of 3

and work areas secured by the Department through consent and release of the adjacent property owners. Be responsible for all encroachments onto private lands.

**H. 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 Special; Note for Waste and Borrow.

**I. Final Dressing, Clean Up, and 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 according to the Special Notes for Erosion Control.

**J. Erosion Control.** See Special Notes 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 Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections as applicable.

**C. Guardrail.** See Section 719.04.

**D. Delineators for Guardrail.** See the Sepia Drawing.

**E. Erosion Control.** See Special Notes for Erosion Control.

#### **V. BASIS OF PAYMENT**

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

**B. Guardrail.** See Section 719.05.

**C. Delineators for Guardrail.** See the Sepia Drawing.

**D. Erosion Control.** See Special Notes 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, maintain and control traffic in accordance with the 2019 Standard and Supplemental Specifications, and the Standard and Sepia Drawings. Article references are to the Standard Specifications. 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.

### **PROJECT PHASING & CONSTRUCTION PROCEDURES**

At the discretion of the Engineer, days and hours may be specified when road and lane closures will not be allowed.

US 231 may be closed to through traffic at MP 8.100 for removal of the existing masonry stone culvert and construction of the aluminum box culvert subject to the following conditions:

1. Deliver the box culvert fully assembled or assemble the box culvert adjacent to the project site prior to road closure.
2. Provide a proposed closure schedule to the Engineer fourteen (14) days prior to beginning work. Obtain the Engineer's approval prior beginning work.
3. The Department will provide public notification only; the Contractor is responsible for road closure, detour signing, work zone signs, barricades, and physically barricading the site. Notify the Engineer immediately of any anticipated or proposed deviations from the approved work schedule
4. The closure will be allowed on a single period for a maximum of 2.5 calendar days (60 Hours) over a weekend closure. The road is allowed to be closed on a Friday Evening at no earlier than (7 PM) and, must be opened to traffic by the following Monday no later than (7 AM). All necessary safety and traffic control devices must be in place before the reopening of US 231.
5. The Contractor will not be required to provide continuous access to single family, duplex, or triplex residential properties or farms during working hours; however, the Contractor shall provide reasonable egress and ingress to each such property when actual operations are not in progress at that location prior or after the weekend closure. The time during which a residential entrance is blocked shall be the minimum length of time required for actual operations, shall not be extended for the Contractor's convenience, and in no case shall exceed six (6) hours. The Contractor shall notify all residents



twenty-four hours in advance of any driveway or entrance closings and shall make any accommodations necessary to meet the access needs of disabled residents.

6. Maintain local traffic and provide access to side streets and roads, schools, churches, commercial properties and apartments or apartment complexes of four or more units at all times. Maintain alternating one-way traffic during working hours at all other times during construction outside of the allowed closure timeframe. The clear lane width shall be 10 feet. If traffic should be stopped due to construction operations, and a school bus on an official run arrives on the scene, make provisions for the passage of the bus as quickly as possible.

## **LANE & SHOULDER CLOSURES**

Except for the allowable days specified in the phasing for road closure to place and backfill the culvert, do not leave lane closures in place during non-working hours. Shoulder closures may be maintained during nonworking hours; however do not park vehicles or store materials on a closed shoulder during non-working hours.

## **SIGNS**

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. Signs, including any splices, shall be installed according to manufacturer's specifications and installation recommendations. 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.

## **PORTABLE CHANGEABLE MESSAGE SIGNS**

Provide changeable message signs in advance of and within the project at locations determined by the Engineer. If work is in progress concurrently in both directions or if more than one lane closure is in place in the same direction of travel, provide additional changeable message signs as directed by the Engineer. Place changeable message signs one mile in advance of the anticipated queue at each lane closure. As the actual queue lengthens and/or shortens, relocate or provide additional changeable message signs so that traffic has warning of slowed or stopped traffic at least one mile but not more than two miles before reaching the end of the actual queue. 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 replacements for damaged Changeable Message Signs or for signs the Engineer directs 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 shall be incidental to Maintain and Control Traffic according to Section 112.04.01. Barricades used to protect pavement removal areas and for road closures will be bid as each according to Section 112.04.04. Individual barricades will be measured only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. Replacements for damaged barricades directed by the Engineer to be replaced due to poor condition or reflectivity will not be measured for payment.

## **TRAFFIC COORDINATOR**

Designate an employee to be traffic coordinator. The designated Traffic Coordinator must be certified by the American Traffic Safety Services Association (ATSAA). The Traffic Coordinator shall provide for inspection of the project maintenance of traffic once every two hours during the Contractor's operations and at any time a lane closure is in place. The Traffic Coordinator shall report all incidents throughout the work zone to the Engineer on the project. The Contractor shall furnish the name and telephone number where the Traffic Coordinator can be contacted at all times. During any period when a lane closure is in place, the Traffic Coordinator will arrange for personnel to be present on the project at all times to inspect the traffic control, and maintain the signing and barricades. The personnel will have access on the project to a radio or telephone to be used in case of emergencies or accidents.

## **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 in advance of and at 1500 foot intervals throughout the drop-off area. Provide dual posting on both sides of the traveled way. Wedge 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.

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. Cones may be used in place of plastic drums, panels, and barricades during daylight working hours. Wedge 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.

Culvert Trench – Close road during period when culvert trench is open using type III Barricades.

## 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)

## **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
- Nor 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 signs 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 thief (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
-

### Standard Abbreviations

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

<b><u>Word</u></b>	<b><u>Abbrev.</u></b>	<b><u>Example</u></b>
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 DELWAYS 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 MIL/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
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>	Action
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
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



## **SPECIAL NOTE FOR EROSION CONTROL**

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### **I. DESCRIPTION**

Perform all erosion and water pollution control work in accordance with the Department's 2019 Standard Specifications, these notes, and interim Supplemental Specifications, Special Provisions and Special Notes, and Standard and Sepia Drawings, current editions, and 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, and applicable Special Provisions and Special Notes, and 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 Plan 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 and the supplemental specifications. 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, and the construction phasing, methods and 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

## Erosion Control

### Page 2 of 4

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 and Special Notes, Standard and Sepia Drawings, and such state and local government agency requirements, adhere to the most restrictive requirement.

Conduct operations in such a manner as to minimize the amount of disturbed ground during each phase of the construction and limit the haul roads to the minimum required to perform the work.. Preserve existing vegetation not required to be removed by the work or the contract. Seed and/or mulch disturbed areas at the earliest opportunity. Use silt fence, silt traps, temporary ditches, brush barriers, erosion control blankets, sodding, channel lining, and other erosion control measures in a timely manner as required by the BMP and as directed or approved by the Engineer. Prevent sediment laden water from leaving the project, entering an existing drainage structure, or entering a 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. 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 Special Note for Waste and Borrow).

As work progresses, add or remove erosion control measures as required by the BMP applicable to the Contractor's project phasing and 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.

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

Erosion Control  
Page 3 of 4

#### IV. MEASUREMENT

**Erosion Control Blanket.** If required by the BMP, the Department will measure Erosion Control Blanket according to Section 212.04.07.

**Sodding.** If required by the BMP, the Department will measure Sodding according to Section 212.04.08.

**Channel Lining.** If required by the BMP, the Department will measure Channel Lining according to Sections 703.04.04-703.04.07.

**Erosion Control.** Contrary to Sections 212.04 and 213.04, other than Erosion Control Blankets, Sodding, and Channel Lining, the Department will consider Erosion Control as incidental to Site Preparation. The Department will not measure developing, updating, and maintaining a BMP plan for each site; providing a KEPSC qualified inspector; locating, furnishing, installing, inspecting, maintaining, and removing erosion and water pollution control items; Roadway Excavation, Borrow Excavation, Embankment In Place, Topsoil Furnished and Placed, and Spreading Stockpiled Topsoil; Topdressing Fertilizer, Temporary and Permanent Seeding and Protection, Special Seeding Crown Vetch, and Temporary Mulch; Sedimentation Basin and Clean Sedimentation Basin, Silt Trap Type "A" and Clean Silt Trap Type "A"; Silt Trap Type "B" and Clean Silt Trap Type "B"; Silt Trap Type "C" and Clean Silt Trap Type "C"; Temporary Silt Fence and Clean Temporary Silt Fence; Plants, Vines, Shrubs, and Trees; Gabion and Dumped Stone Deflectors and Riffle Structures; Boulders; and Temporary Ditches and clean Temporary Ditches; and all other erosion and water pollution control items required by the BMP or the Engineer, but **shall be** considered incidental to Site Preparation.

#### V. Basis of Payment

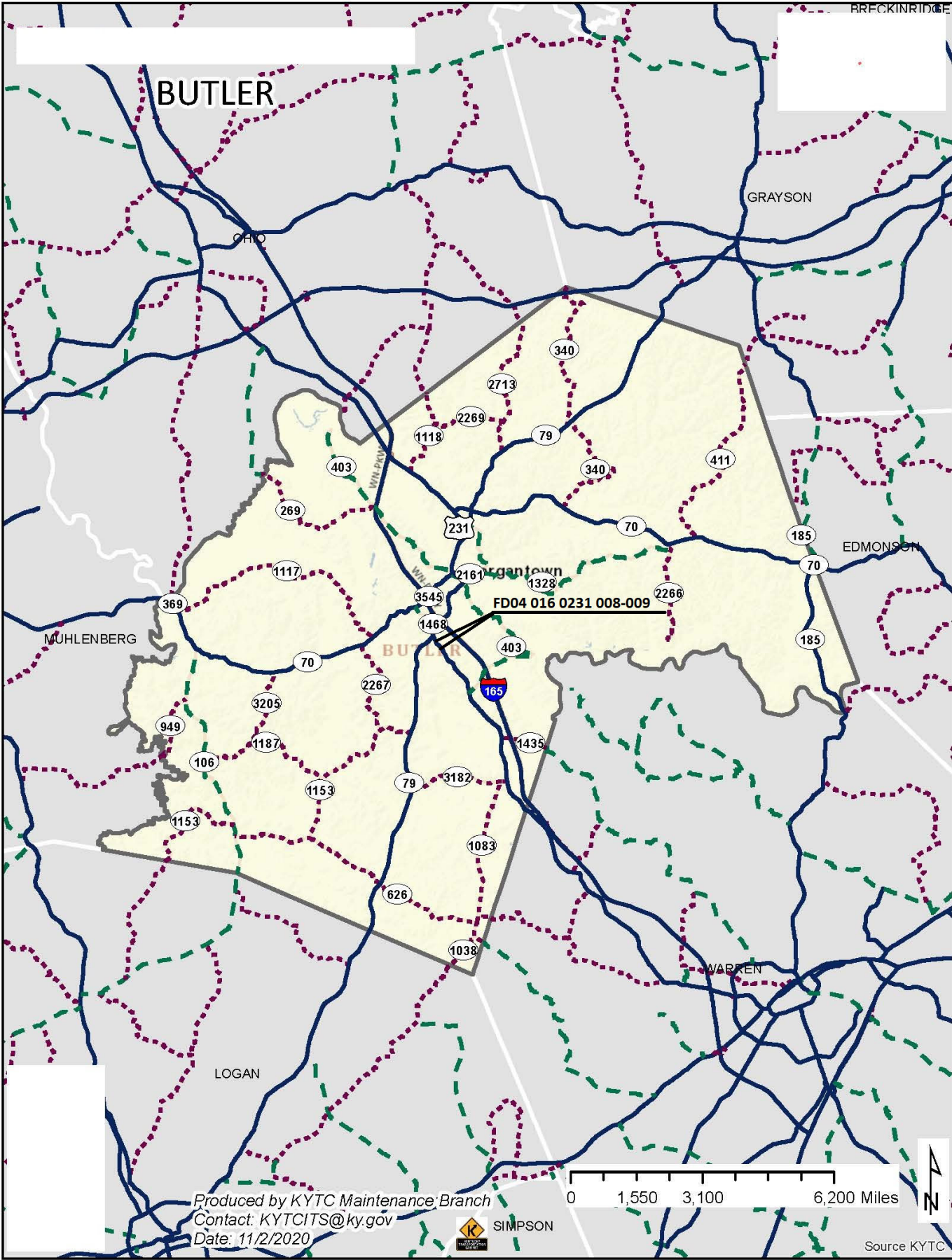
**Erosion Control Blanket.** If not listed as a bid item, but required by the BMP, the Department will pay for Erosion Control Blankets as Extra Work according to Sections 104.03 and 109.04.

**Sodding.** If not listed as a bid item, but required by the BMP, the Department will pay for Sodding as Extra Work according to Sections 104.03 and 109.04.

**Channel Lining.** If not listed as a bid item, but required by the BMP, the Department will pay for Channel Lining as Extra Work according to Sections 104.03 and 109.04.

Erosion Control  
Page 4 of 4

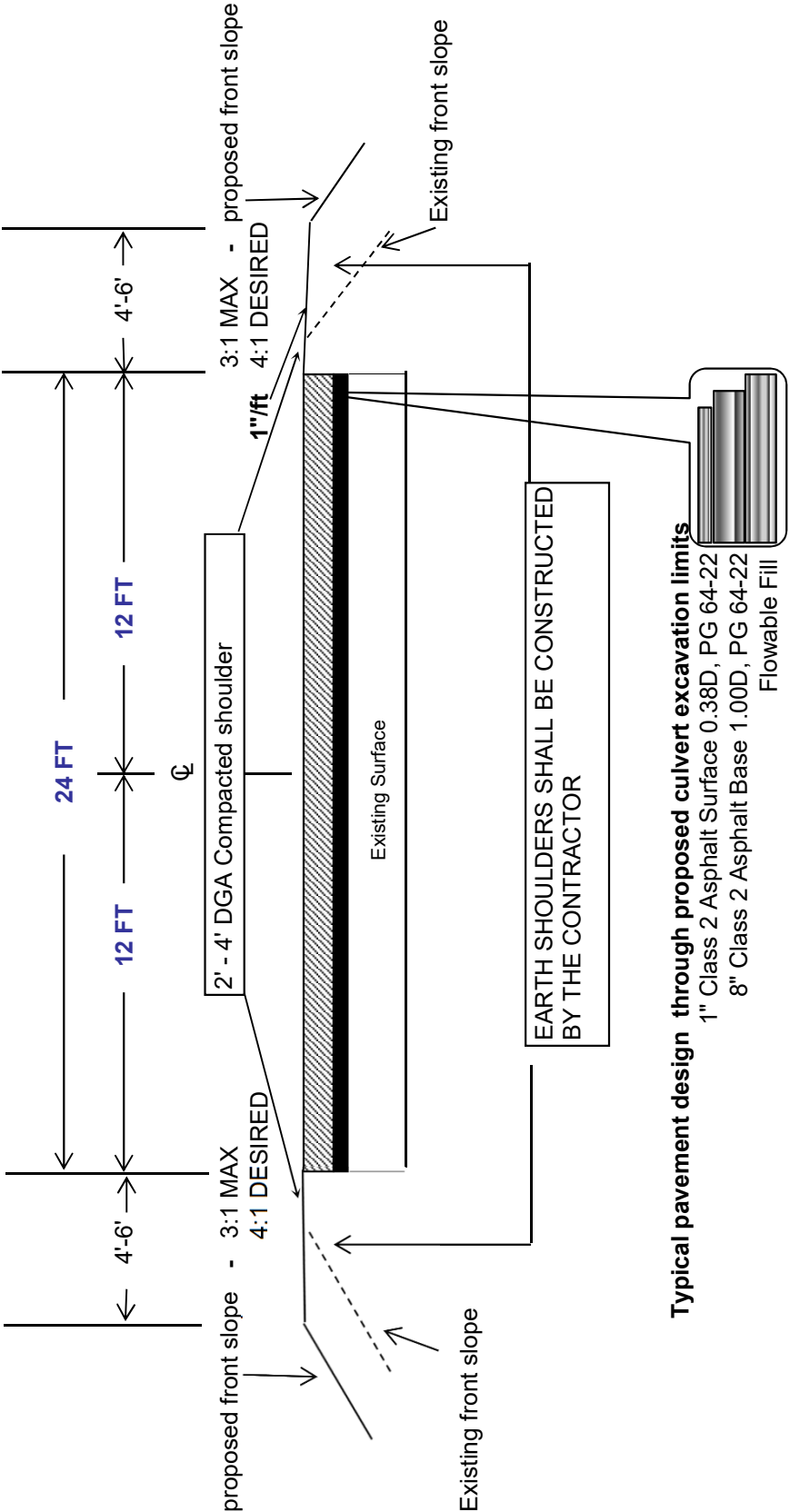
**Erosion Control.** Contrary to Sections 212.05 and 213.05, other than Erosion Control Blanket, Sodding, and Channel Lining, payment for Erosion Control **shall be** considered incidental to Site Preparation, and shall be full compensation for all materials, equipment, labor and incidentals necessary to complete the erosion and water pollution control work as specified in these notes, Sections 212 and 213, the Supplemental Specifications, applicable Special Provisions and Special Notes, and Standard and Sepia Drawings, including but not limited to developing, updating, and maintaining a BMP plan for each site; providing a KEPSC qualified inspector; locating, furnishing, installing, inspecting, maintaining, and removing erosion and water pollution control items; Roadway Excavation, Borrow Excavation, Embankment In Place, Topsoil Furnished and Placed, and Spreading Stockpiled Topsoil; Topdressing Fertilizer, Temporary and Permanent Seeding and Protection, Special Seeding Crown Vetch, and Temporary Mulch; Sedimentation Basin and Clean Sedimentation Basin, Silt Trap Type "A" and Clean Silt Trap Type "A"; Silt Trap Type "B" and Clean Silt Trap Type "B"; Silt Trap Type "C" and Clean Silt Trap Type "C"; Temporary Silt Fence and Clean Temporary Silt Fence; Plants, Vines, Shrubs, and Trees; Gabion and Dumped Stone Deflectors and Riffle Structures; Boulders; and Temporary Ditches and clean Temporary Ditches; and all other erosion and water pollution control items required by the BMP or the Engineer



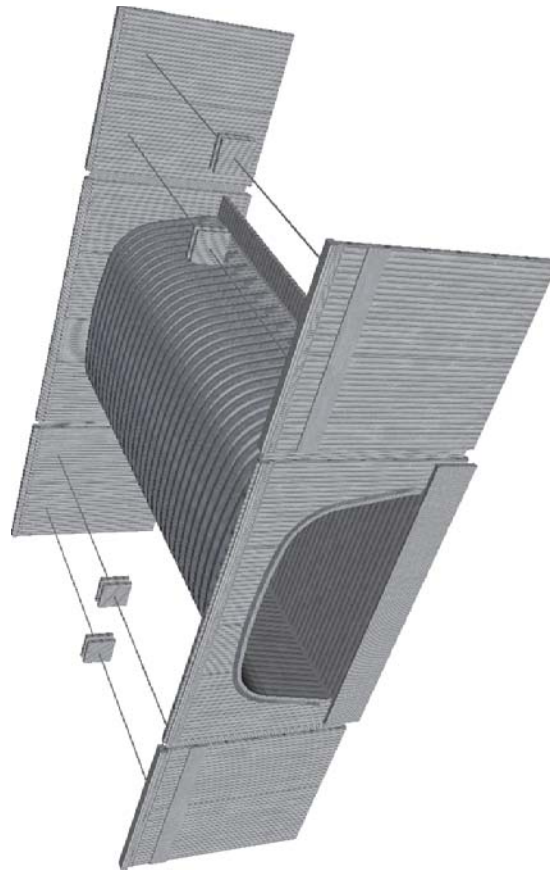
[illegible]

Type 1	2,000
Type 2A	0,000
Type 3	0,000
Type 4	0,000
Type 7	0,000
Terminal	2,000

Butler County  
TYPICAL SECTION  
FD04 016 0231 008-009

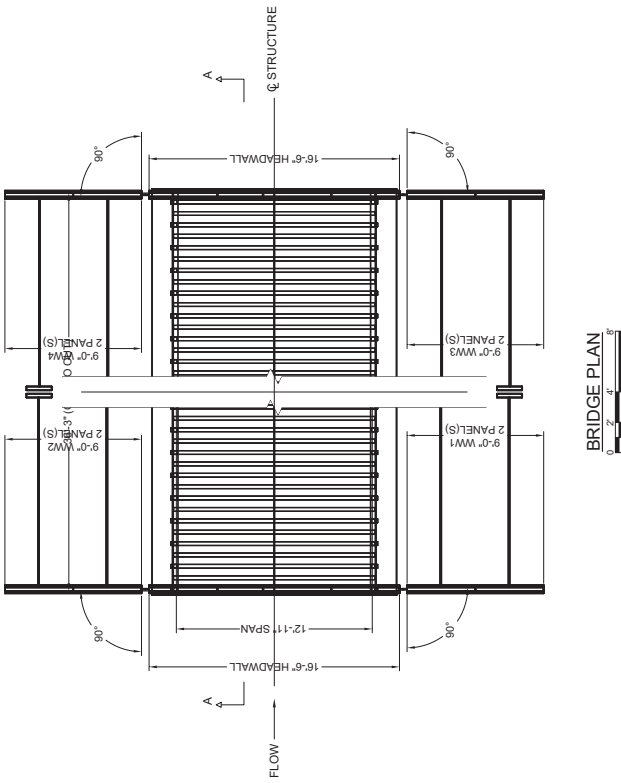






**PRELIMINARY**  
NOT FOR CONSTRUCTION

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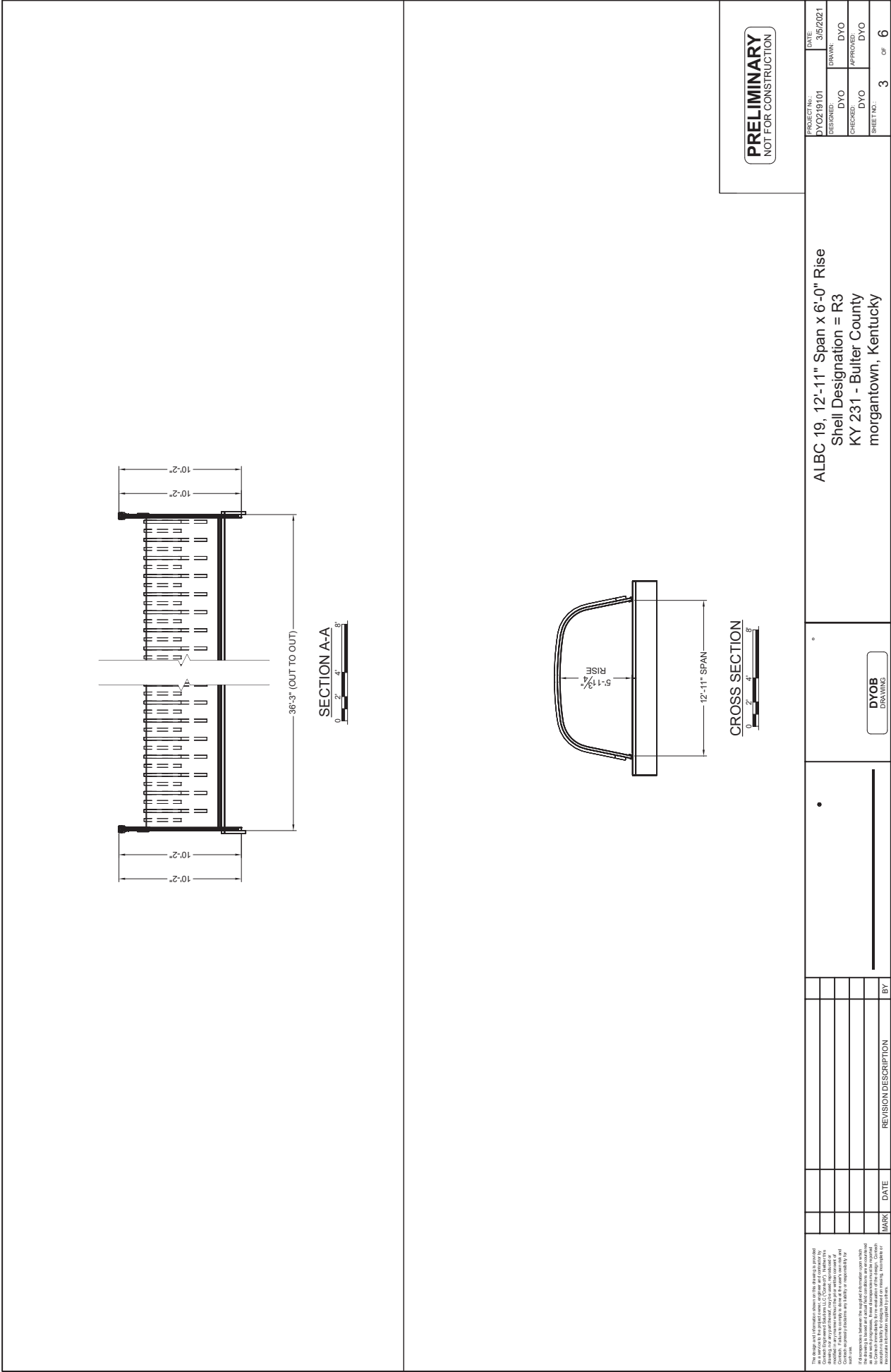
**PRELIMINARY**  
NOT FOR CONSTRUCTION

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**PRELIMINARY**  
NOT FOR CONSTRUCTION

ALBC 19, 12'-11" Span x 6'-0" Rise	PROJECT No.	DATE
Shell Designation = R3	DY0219101	3/5/2021
KY 231 - Bulter County morgantown, Kentucky	DESIGNED:	DRAWN:
	DYO	DYO
	CHECKED:	APPROVED:
	DYO	DYO
	SHEET NO.:	2 OF 6





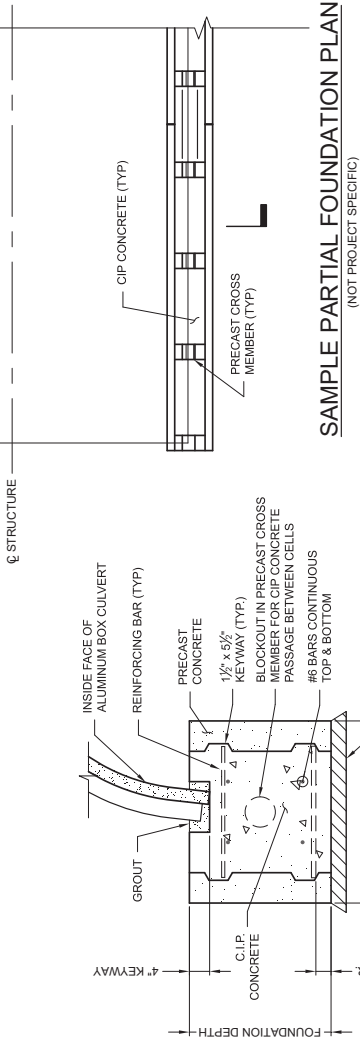
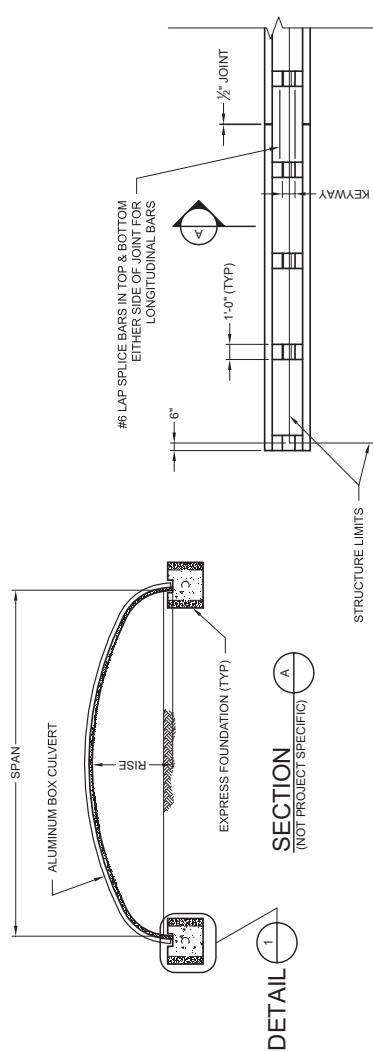
\*Modified from M-145.

Fine beach sands, windblown sands, stream deposited sands, etc., exhibiting fine, rounded particles and typically Classified by AASHTO M-145 as A-3 materials should not be used.

Reference the most current version of ASTM D2487, Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System), for comparable soil groups.

DYOB  
DRAWING

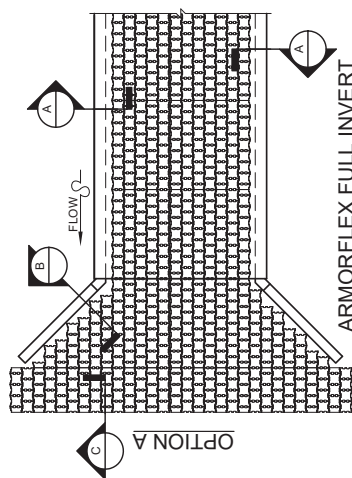
EXPRESS FOUNDATIONS



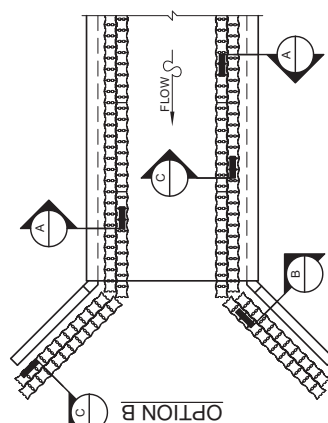
DETAIL  
(NOT PROJECT SPECIFIC)

The design and information shown on this drawing is intended for the use of the project only. It is not to be used for any other purpose without the written consent of the design engineer. The design engineer is not responsible for the accuracy of the information shown on this drawing. The design engineer is not responsible for the accuracy of the information shown on this drawing. The design engineer is not responsible for the accuracy of the information shown on this drawing.		MARK	DATE	REVISION DESCRIPTION	BY
ALBC 19, 12'-11" Span x 6'-0" Rise Shell Designation = R3 KY 231 - Butler County morgantown, Kentucky		DYOB DRAWING			
PROJECT No. DY0219101		DATE 3/5/2021		DRAWN DYO	
DESIGNED DYO		APPROVED DYO		DYO	
SHEET NO. 5		OF 6		DYO	

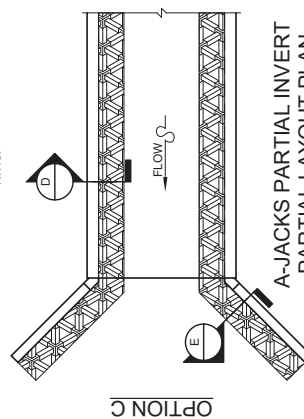
A-JACKS PARTIAL INVERT



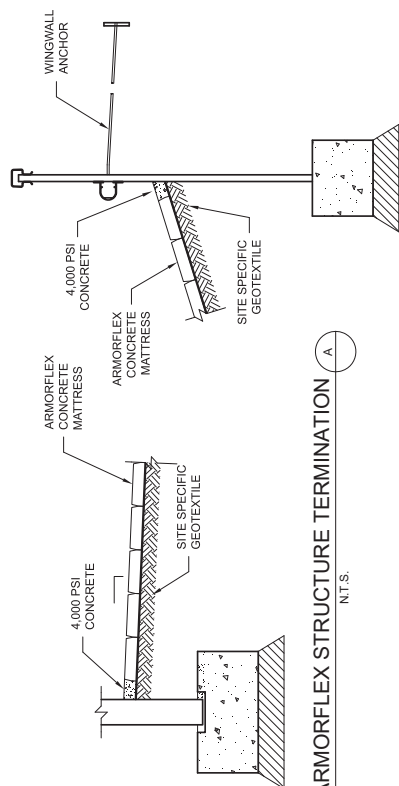
ARMORFLEX FULL INVERT  
PARTIAL LAYOUT PLAN



## ARMORFLEX PARTIAL INVERT PARTIAL LAYOUT PLAN



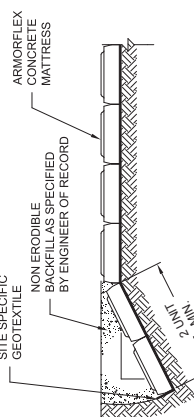
A-JACKS PARTIAL INVERT  
PARTIAL LAYOUT PLAN



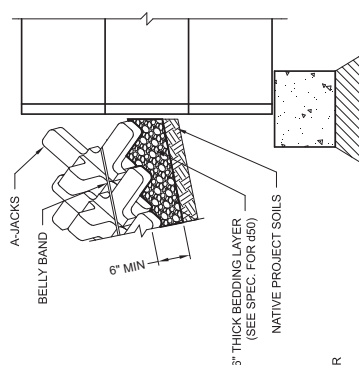
ARMORFLEX STRUCTURE TERMINATION



## ARMORFLEX WINGWALL TERMINATION



STANDARD TERMINATION



## A-JACKS WINGWALL TERMINATION

[illegible]

Contract Id: \_\_\_\_\_ Contractor: \_\_\_\_\_

Section Engineer: \_\_\_\_\_ District & County: \_\_\_\_\_

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

**\*Required Signatures before Leaving Project Site**

Printed Section Engineer’s Representative\_\_\_\_\_ & Date\_\_\_\_\_

Signature Section Engineer’s Representative\_\_\_\_\_ & Date\_\_\_\_\_

Printed Contractor’s Representative\_\_\_\_\_ & Date\_\_\_\_\_

Signature Contractor’s Representative\_\_\_\_\_ & Date\_\_\_\_\_

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

Printed Bailey Bridge Yard Representative\_\_\_\_\_ & Date\_\_\_\_\_

Signature Bailey Bridge Yard Representative\_\_\_\_\_ & Date\_\_\_\_\_

Printed Contractor’s Representative\_\_\_\_\_ & Date\_\_\_\_\_

Signature Contractor’s Representative\_\_\_\_\_ & Date\_\_\_\_\_

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



**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 PORTABLE CHANGEABLE MESSAGE SIGNS**

This Special Note will apply when indicated on the plans or in the proposal.

**1.0 DESCRIPTION.** Furnish, install, operate, and maintain variable message signs at the locations shown on the plans or designated by the Engineer. Remove and retain possession of variable message signs when they are no longer needed on the project.

## **2.0 MATERIALS.**

**2.1 General.** Use LED Variable Message Signs Class I, II, or III, as appropriate, from the Department's List of Approved Materials.

Unclassified signs may be submitted for approval by the Engineer. The Engineer may require a daytime and nighttime demonstration. The Engineer will make a final decision within 30 days after all required information is received.

### **2.2 Sign and Controls.** All signs must:

- 1) Provide 3-line messages with each line being 8 characters long and at least 18 inches tall. Each character comprises 35 pixels.
- 2) Provide at least 40 preprogrammed messages available for use at any time. Provide for quick and easy change of the displayed message; editing of the message; and additions of new messages.
- 3) Provide a controller consisting of:
  - a) Keyboard or keypad.
  - b) Readout that mimics the actual sign display. (When LCD or LCD type readout is used, include backlighting and heating or otherwise arrange for viewing in cold temperatures.)
  - c) Non-volatile memory or suitable memory with battery backup for storing pre-programmed messages.
  - d) Logic circuitry to control the sequence of messages and flash rate.
- 4) Provide a serial interface that is capable of supporting complete remote control ability through land line and cellular telephone operation. Include communication software capable of immediately updating the message, providing complete sign status, and allowing message library queries and updates.
- 5) Allow a single person easily to raise the sign to a satisfactory height above the pavement during use, and lower the sign during travel.
- 6) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
- 7) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
- 8) Provide the driver board as part of a module. All modules are interchangeable, and have plug and socket arrangements for disconnection and reconnection. Printed circuit boards associated with driver boards have a conformable coating to protect against moisture.
- 9) Provide a sign case sealed against rain, snow, dust, insects, etc. The lens is UV stabilized clear plastic (polycarbonate, acrylic, or other approved material) angled to prevent glare.
- 10) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
- 11) Provide a photocell control to provide automatic dimming.

11

- 12) Allow an on-off flashing sequence at an adjustable rate.
- 13) Provide a sight to aim the message.
- 14) Provide a LED display color of approximately 590 nm amber.
- 15) Provide a controller that is password protected.
- 16) Provide a security device that prevents unauthorized individuals from accessing the controller.
- 17) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

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

\*Insert numerals as directed by the Engineer.

Add other messages during the project when required by the Engineer.

### 2.3 Power.

- 1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide direct wiring for operation of the sign or arrow board from an external power source to provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.

**3.0 CONSTRUCTION.** Furnish and operate the variable message signs as designated on the plans or by the Engineer. Ensure the bottom of the message panel is a minimum of 7 feet above the roadway in urban areas and 5 feet above in rural areas when operating. Use Class I, II, or III signs on roads with a speed limit less than 55 mph. Use Class I or II signs on roads with speed limits 55 mph or greater.

Maintain the sign in proper working order, including repair of any damage done by others, until completion of the project. When the sign becomes inoperative, immediately repair or replace the sign. Repetitive problems with the same unit will be cause for rejection and replacement.

Use only project related messages and messages directed by the Engineer, unnecessary messages lessen the impact of the sign. Ensure the message is displayed in either one or 2 phases with each phase having no more than 3 lines of text. When no message is needed, but it is necessary to know if the sign is operable, flash only a pixel.

When the sign is not needed, move it outside the clear zone or where the Engineer directs. Variable Message Signs are the property of the Contractor and shall be removed from the project when no longer needed. The Department will not assume ownership of these signs.

**4.0 MEASUREMENT.** The final quantity of Variable Message Sign will be

11  
the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

**5.0 PAYMENT.** The Department will pay for the Variable Message Signs at the unit price each. The Department will not pay for signs replaced due to damage or rejection. Payment is full compensation for furnishing all materials, labor, equipment, and service necessary to, operate, move, repair, and maintain or replace the variable message signs. The Department will make payment for the completed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

9V

### **SPECIAL NOTE FOR ALUMINUM AND STEEL STRUCTURAL PLATE BOX CULVERTS**

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

**1.0 DESCRIPTION.** Furnish and install either an aluminum or a steel structural plate box culvert as the Contract specifies.

#### **2.0 MATERIALS.**

**2.1 Structure.** These structures consist of prefabricated sections assembled and erected at the site. Prefabricated sections consist of corrugated aluminum or steel plates, as the Contract specifies, which have been factory shaped, punched, and coated when required. The Department will not permit field modification except for tapping saddles or other devices to permit passage of other conduits or utilities through the structure. Furnish and install all auxiliary items such as ribs, wales, stiffeners, footing pads, etc. that the design requires. Furnish and install endwalls and toewalls when the plans require them. When endwalls are required, construct full height wing sections. Do not field bevel cut wing sections.

Before beginning erection, furnish to the Engineer applicable shop drawings, erection layouts, and manufacturer's brochures for submittal to the Division of Construction. Indicate the location of the drawing number, design load (as applicable), contract award year, and contractor stencils on the shop drawings. If a drawing number has not been assigned for the structure, obtain one from the Division of Structural Design. The Department will accept plates and accessories by certificate of compliance from the manufacturer. Upon completion of construction, submit to the Division of Structural Design an as-built set of structure plans and reviewed shop drawings in 22 inch by 36 inch Portable Document Format (PDF) for archiving.

**2.1.1 Aluminum Structure.** Obtain the aluminum structural plate box culvert, and aluminum endwalls or toewalls when required, from either Contech Construction Products or Lane Metal Products.

The Department will accept comparable aluminum structures produced by other companies when the Engineer approves. For such approval, submit sufficient data and design calculations to show that the proposed structures are equal in all respects to the Contech product and also include evidence of actual installations now in service that are performing satisfactorily. Design according to the current AASHTO LRFD Bridge Design Specifications, except design for KYHL-93 live load. The KYHL-93 live load is arrived at by increasing the standard AASHTO HL-93 truck and lane loads as specified in the AASHTO Specifications by 25%. Do not consider as a tunnel or tunnel liner plate for design. Before beginning erection, furnish the Engineer applicable shop drawings and structural design calculations performed, stamped, and signed by a qualified Professional Engineer licensed to practice in the State of Kentucky.

Use aluminum accessories and plates, of the plan specified thickness, that conforms to AASHTO M 219 or ASTM B 308 as applicable.

Where non-aluminum utilities are passed through, insulate with an aluminastic compound or approved equal, to prevent bi-metallic contact.

**2.1.2 Steel Structure.** Use either (1) Contech Construction Products'

9V

Multi-Plate Steel Box Culvert; or (2) Lane Metal Products Company's Low Profile Box Culvert.

The Department will accept comparable steel structures produced by other companies when the Engineer approves. For such approval, submit sufficient data and design calculations to show that the proposed structures are equal in all respects to those specified above and also include evidence of actual installations now in service that are performing satisfactorily. Design according to the current AASHTO LRFD Bridge Design Specifications, except design for KYHL-93 live load. The KYHL-93 live load is arrived at by increasing the standard AASHTO HL-93 truck and lane loads as specified in the AASHTO Specifications by 25%. Do not consider as a tunnel or tunnel liner plate for design. Before beginning erection, furnish the Engineer applicable shop drawings and structural design calculations performed, stamped, and signed by a qualified Professional Engineer licensed to practice in the State of Kentucky.

Use steel accessories and plates, of the plan specified thickness, that conform to AASHTO M 167 for galvanized steel.

**2.2 Asphalt Coating.** On all steel drainage structures, except those installed as railroad tunnels, cattle underpasses, bicycle or pedestrian underpasses, or similar dry conditions, apply an asphalt coating conforming to Subsection 806.06.

**2.3 Bedding Material.** Use granular material with 100% passing 1 inch sieve that conforms to Subsection 804.08. Bedding shall be placed at a minimum thickness of twice the corrugation depth.

**2.4 Backfill Material.** Select any of the following alternates and obtain the Engineers approval.

- 1) well graded or uniformly graded bank or creek gravel, crushed or uncrushed, up to 3 inches maximum size;
- 2) well graded or uniformly graded natural or crushed sand;
- 3) finely shot limestone or sandstone providing no individual fragment is larger than 3 inches and the material contains no more than 5 percent dirt and/or shale, as determined by visual inspection by the Engineer;
- 4) crushed stone or crushed slag up to 3 inches maximum size (except DGA or Size No. 610);
- 5) other locally available materials meeting the approval of the Engineer (local soils conforming to soil classifications A-2-4 or A-2-5 from AASHTO M 145 will be acceptable). Do not use plastic soils, or materials containing significant amounts of nondurable shale (SDI < 95 by KM 64-513); or
- 6) flowable fill conforming to Subsection 601.03.03, B), 5).

**2.5 Foundation Material.** Use material capable of supporting the imposed loads due to backfill weight and footing pressures of 2 tons per square foot.

### **3.0 CONSTRUCTION.**

**3.1 Technical Representative.** Provide a technical representative from the structure manufacturer to advise at the start of the project. Ensure the technical representative is available thereafter to assist in the event problems or special circumstances arise.



9V

Technical assistance shall be provided at no additional cost to the Department.

**3.2 Site Preparation.** Perform structure excavation according to Section 603, except as modified herein.

On structures with footing pads, excavate trenches 3 inches below the elevation shown on the plans, and level the bottom of the trench with 3 inches of bedding material before placing the footing pads.

On structures with a full metal invert, excavate the entire area covered by the invert plates to accommodate bedding material placement to a minimum thickness of twice the corrugation depth before placing the invert plates.

Take soundings for foundation design at the inlet and outlet of each culvert and at intervals no greater than 20 feet along the grade line of the bottom of the culvert, to a depth of one foot. Make soundings on the centerline and at each edge of the culvert. Where ledge rock, gravel, hardpan, or other unyielding material is encountered or known to exist within the limits stated, perform excavation in the area under the invert plates or footing pads. Extend the additional excavation to a depth of  $0.042 H$  below the bottom of the metal plates, where  $H$  is the height of fill above the top of the culvert. However, regardless of the height of fill, the Department will require the additional depth to be a minimum of one foot and will not require it to be more than  $0.75 H_c$ , where  $H_c$  is the total height of the culvert.

Backfill the additional excavation with an earth cushion of firmly compacted fine soils in layers of 6 inches or less, prior to placing the sand bedding layer.

Excavate cross trenches as necessary to place metal toewalls when the plans require them.

Excavate a minimum width of the outside dimension of the box culvert including footing pads or invert plates plus 6 inches on each side.

Proper bedding preparation is critical for satisfactory performance of the box culvert. Place the bed for footing pads or invert plates to uniform lines and grade to avoid distortions and undesirable stresses in the structure.

Construct concrete footings or bottom slabs in accordance with the plans and standard specifications.

**3.3 Installation.** Erect the culvert, and endwalls when required, in strict accordance with the manufacturer's recommendations. The Department will allow offsite assembly of the structure, provided prior approval is obtained, and assembly is in accordance with the manufacturer's instructions. Structural plates shall be assembled with their inside circumferential sheet laps pointing downstream. Align plates circumferentially to avoid permanent distortion from the specified shape. Ensure the width and height of the completed structure is within 2 percent of the specified dimensions or 2 inches, whichever is greater.

Tighten bolts in the erected structure according to the manufacturer's recommendations, with good seam laps, while in proper shape, using nuts and bolts the manufacturer supplies. Construct concrete footings and headwalls in accordance with the plans.

Install the ribs, wales, and toewalls when required, according to the manufacturer's recommendations.

In side-by-side installations, install the box culverts with footing pads or invert plates of each culvert no closer than 2 feet to the footing pads or invert plates of the adjacent culvert, unless the plans show otherwise. Excavate the entire volume between the culverts and place backfill.

**3.4 Backfill.** Proper placement and compaction of backfill are essential to obtain

9V

maximum strength and stability of the finished structure. Use equipment and construction procedures to prevent excessive structure distortion from occurring. The manufacturer of the structure will specify the magnitude of allowable shape changes during backfill. Monitor the shape of the structure to control distortion until all backfilling operations are completed.

On structures with concrete footing pads, backfill the trench for the pads to the flowline inside the culvert before outside backfilling begins.

Place granular backfill material in horizontal layers not exceeding 6 inches loose depth, and bring up uniformly on both sides of the structure. Compact each layer to the same level on all sides before proceeding to the next lift. Do not use compaction equipment or methods that produce earth pressures that cause distortion or damage. Place material on top of the structure at right angles to the centerline of the structure. Compact each layer of backfill to a density of at least 95 percent of the maximum density according to KM 64-511. The Department will determine the in-place density using nuclear gages. The Engineer may waive density testing when not feasible due to the nature of the material. When using flowable fill, place according to Subsection 601.03.09, C).

If the structure is not installed in a full depth trench, use backfill material for embankment adjacent to the structure for a distance equal to the span width on each side of the box culvert and to a height of 2 feet or subgrade elevation, whichever is lower, above the structure.

**3.5 Construction Loads.** Do not allow construction loads in excess of HS-20 vehicles to cross the completed box culvert unless it is internally braced. Design the support for such bracing so as not to impair the structural integrity or severely interfere with the hydraulics of the box culvert or its invert. Have the culvert manufacturer review the details of the bracing and submit them to the Engineer for approval.

**3.6 Headwalls.** Construct concrete headwalls, when required, according to the plans. Apply masonry coating to exposed surfaces of the headwalls when required by Subsection 601.03.18, B). When using an aluminum structure, coat aluminum surfaces that will be in contact with concrete with alumilastic compound or an approved equal prior to placing concrete.

#### **4.0 MEASUREMENT.**

**4.1 Structure Excavation.** The Department will measure Structure Excavation as Structure Excavation, Common or Structure Excavation, Solid Rock according to Subsection 206.04.03, except on the sides of the structure the volume will be bounded by vertical planes 6 inches outside the footing pads or invert plates and parallel thereto.

The Department will measure material necessary for backfill in excess of the material excavated as Borrow Excavation, Roadway Excavation, or Embankment-in-Place, as applicable.

The Department will measure granular material used to replace excavated material that is unsuitable for backfill as Borrow Excavation, Roadway Excavation, or Embankment-in-Place. The Department will not measure earthwork for payment when the bid item is Embankment-in-Place unless the unsuitable material is wasted.

The Department will not measure flowable fill for payment and will consider it incidental to the structure.

The Department will not measure bedding for payment and will consider it incidental to the structure.

**4.2 Aluminum Structural Plate Box Culvert.** The Department will measure the

9V

quantity in linear feet at each location. The Department will consider the number of linear feet in each installation to be the plan length, increased or decreased by authorized adjustments. The Department will not measure ribs, wales, stiffeners, footing pads, toewalls, endwalls, internal braces, or asphalt coating for payment and will consider them incidental to the structure.

**4.3 Steel Structural Plate Box Culvert.** See 4.2.

**4.4 Class A Concrete.** The Department will measure Class A Concrete in footings and headwalls according to Subsection 601.04.

**4.5 Reinforcement.** The Department will measure Steel Reinforcement in the footings and headwalls according to Subsection 602.04.

**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>
20694EN	Aluminum Structural Plate Box Culvert	Linear Foot
20695EN	Steel Structural Plate Box Culvert	Linear Foot
----	Structure Excavation, as classified	See Section 603.05
----	Concrete, Class	See Section 601.05
----	Steel Reinforcement	See Section 602.05

The Department will consider payment as full compensation for all work required in this note.

June 15, 2012

2020 KENTUCKY STANDARD DRAWINGS

CURVE WIDENING AND SUPERELEVATION TRANSITIONS .....	RGS-001-07
SUPERELEVATION FOR MULTILANE PAVEMENT .....	RGS-002-06
MISCELLANEOUS STANDARDS .....	RGX-001-06
APPROACHES, ENTRANCES, AND MAIL BOX TURNOUT .....	RPM-110-07
LANE CLOSURE TWO-LANE HIGHWAY .....	TTC-100-04
SHOULDER CLOSURE .....	TTC-135-02
PAVEMENT CONDITION WARNING SIGNS.....	TTD-125-02
MOBILE OPERATION FOR PAINT STRIPING CASE I .....	TTS-100-02
MOBILE OPERATION FOR PAINT STRIPING CASE II.....	TTS-105-02
GUARDRAIL END TREATMENT TYPE 1 .....	RBR-020-07
STEEL BEAM GUARDRAIL (“W”-BEAM).....	RBR-001-13
GUARDRAIL COMPONENTS.....	RBR-005-11
GUARDRAIL TERMINAL SECTIONS .....	RBR-010-06
DELINEATORS FOR GUARDRAIL.....	RBR-055-01
INSTALLATION OF GUARDRAIL END TREATMENT TYPE 1 .....	RBI-004-06
TYPICAL GUARDRAIL INSTALLATIONS .....	RBI-001-12
TYPICAL GUARDRAIL INSTALLATIONS .....	RBI-002-07
EROSION CONTROL BLANKET SLOPE INSTALLATION.....	RDI-040-01
EROSION CONTROL BLANKET CHANNEL INSTALLATION.....	RDI-041-01
CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-001-10
CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-002-05
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-003-05
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-004-04
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-005-04
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-006-04
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-007-04
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-008-04
CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-011-03
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS.....	RDI-012-03

## **PART III**

### **EMPLOYMENT, WAGE AND RECORD REQUIREMENTS**

**TRANSPORTATION CABINET  
DEPARTMENT OF HIGHWAYS**

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

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

**I. APPLICATION**

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

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

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

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

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

Revised: January 25, 2017

**II. NONDISCRIMINATION OF EMPLOYEES**

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

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

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

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

## EXECUTIVE BRANCH CODE OF ETHICS

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

KRS 11A.040 (7) provides:

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

KRS 11A.040 (9) states:

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

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

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

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

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

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

Revised: January 27, 2017

### **Kentucky Equal Employment Opportunity Act of 1978**

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

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

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

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

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



# EMPLOYEE RIGHTS UNDER THE FAIR LABOR STANDARDS ACT

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

## FEDERAL MINIMUM WAGE

**\$7.25** PER HOUR

BEGINNING JULY 24, 2009

### OVERTIME PAY

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

### CHILD LABOR

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

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

**No more than**

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

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

### TIP CREDIT

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

### ENFORCEMENT

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

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

### ADDITIONAL INFORMATION

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

For additional information:



**1-866-4-USWAGE**

(1-866-487-9243)

TTY: 1-877-889-5627



**WWW.WAGEHOUR.DOL.GOV**

## **PART IV**

## **INSURANCE**

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

**PART V**

**BID ITEMS**

Report Date 4/6/21

Section: 0001 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	250.00	TON		\$	
0020	00212		CL2 ASPH BASE 1.00D PG64-22	45.00	TON		\$	
0030	00301		CL2 ASPH SURF 0.38D PG64-22	80.00	TON		\$	
0040	00441		ENTRANCE PIPE-18 IN	50.00	LF		\$	
0050	01310		REMOVE PIPE	50.00	LF		\$	
0060	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	12.00	EACH		\$	
0070	02014		BARRICADE-TYPE III	6.00	EACH		\$	
0080	02187		SITE PREPARATION	1.00	EACH		\$	
0090	02230		EMBANKMENT IN PLACE	600.00	CUYD		\$	
0100	02237		DITCHING	350.00	LF		\$	
0110	02351		GUARDRAIL-STEEL W BEAM-S FACE	450.00	LF		\$	
0120	02360		GUARDRAIL TERMINAL SECTION NO 1	2.00	EACH		\$	
0130	02367		GUARDRAIL END TREATMENT TYPE 1	2.00	EACH		\$	
0140	02381		REMOVE GUARDRAIL	712.50	LF		\$	
0150	02483		CHANNEL LINING CLASS II	250.00	TON		\$	
0160	02562		TEMPORARY SIGNS	550.00	SQFT		\$	
0170	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0180	02671		PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		\$	
0190	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		\$	
0200	02677		ASPHALT PAVE MILLING & TEXTURING	30.00	TON		\$	
0210	05950		EROSION CONTROL BLANKET	2,000.00	SQYD		\$	
0220	06515		PAVE STRIPING-PERM PAINT-6 IN	2,100.00	LF		\$	
0230	20694EN		ALUMINUM STRUCTURAL PLATE BOX CULVERT	36.25	LF		\$	

Section: 0002 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0240	02569		DEMOBILIZATION	1.00	LS		\$	