

CALL NO. 315
CONTRACT ID. 202035
KENTON COUNTY
FED/STATE PROJECT NUMBER FE01 059 0371 006-007
DESCRIPTION AMSTERDAM ROAD (KY 371)
WORK TYPE GRADE & DRAIN WITH INCIDENTAL SURF
PRIMARY COMPLETION DATE 6/30/2020

# LETTING DATE: January 24,2020

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 am EASTERN STANDARD TIME January 24,2020. Bids will be publicly announced at 10:00 am EASTERN STANDARD TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

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

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# **ADMINISTRATIVE DISTRICT - 06**

CONTRACT ID - 202035

FE01 059 0371 006-007

**COUNTY - KENTON** 

PCN - MP05903711902 FE01 059 0371 006-007

AMSTERDAM ROAD (KY 371) (MP 6.075) FROM 0.48 MILES NORTH OF DEER FIELD DRIVE EXTENDING NORTH TO 0.837 MILES SOUTH OF KY 8 (MP 6.110), A DISTANCE OF 0.04 MILES.GRADE & DRAIN WITH INCIDENTAL SURF

GEOGRAPHIC COORDINATES LATITUDE 39:03:39.00 LONGITUDE 84:36:58.00

# **COMPLETION DATE(S):**

COMPLETED BY 06/30/2020 AP

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) 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 <a href="https://secure.kentucky.gov/sos/ftbr/welcome.aspx">https://secure.kentucky.gov/sos/ftbr/welcome.aspx</a> .

# 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 <a href="mailtokytc.projectquestions@ky.gov">kytc.projectquestions@ky.gov</a>. 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 (<a href="www.transportation.ky.gov/contract">www.transportation.ky.gov/contract</a>). 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

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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

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# **SURFACING AREAS**

The Department estimates the mainline surfacing width to be 20 feet.

The Department estimates the total mainline area to be surfaced to be 445 square yards.

The Department estimates the shoulder width to be 2 feet on each side.

The Department estimates the total shoulder area to be surfaced to be 90 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 LINER AND EXTENSION KENTON COUNTY FE01 059 0371 006-007

Except for the roadway and bid items listed the following shall be incidental to the bid item 72" OD HDPE Pipe Liner.

- (1) Removal of existing drainage structure (s) at proposed location.
- (2) Installation of "Culvert Pipe Liner"
- (3) Furnish all materials, labor and equipment including water pumps.
- (4) Keeping the following people aware of the work schedule so they may adjust their routes if there are unexpected road closures or long delays:
  - (a) County Judge-Executive
  - (b) U.S. Postal Service
  - (c) Fire Department
  - (d) Ambulance Services
  - (e) Public Transportation (Bus)
  - (f) State Police
  - (g) Sheriff and /or County Police
  - (h) School Systems

The following paragraphs indicate the construction requirements pertaining to this project.

The Contractor shall coordinate the removal, replacement, reconstruction and lining of the existing drainage structures with the Engineer.

All work shall be done in accordance with the current Standard Specifications for Road and Bridge Construction except as provided herein and elsewhere in the proposal, these "Special Notes" Pipe Log (if applicable) and applicable Standard Drawings.

The Department will sample and test all materials according to Department's Sampling Manual. The Contractor shall have 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.

# Location – KY 371 at MP 6.09 – Approximately 0.85 miles south of KY 8

Remove the failed portion of the existing CMP, gabion baskets and guardrail on the outlet side. This will be paid under bid item "Site Preparation". Do not disturb the existing concrete headwall at the inlet nor approximately 30' of pipe beneath the roadway. Re-establish a 2:1 embankment on the outlet side with earth fill. A 70 foot long, 72" Outside Diameter smooth walled HDPE Pipe Liner shall be installed in the existing 78" inside diameter corrugated metal pipe at MP 6.09. The pipe shall be installed in section lengths determined by the contractor. The HDPE liner will extend 40' from the existing culvert under the roadway. Place Geo-textile fabric and No. 8 stone under and around the extended portion of the Liner. Once all liner sections are installed and locked together, a bulkhead shall be placed at the inlet and where the liner exits the existing culvert. The contractor shall follow the pipe liner manufacturer's instructions for mix design and installation including grout and air tubes. After the bulkhead cures, grout will be installed to fill the void between the two pipes. All grouting tubes and air vents shall be cut flush with the concrete bulkhead after the grout has cured. Place Class III channel lining at the outlet.

Exact locations will be marked by the project engineer prior to any work. The contractor is responsible for obtaining permission from local residents to stage equipment or materials off ROW.

After all work is completed, debris from construction shall be completely removed from the job site. All disturbed areas shall be satisfactorily graded and then roughened with a bulldozer, disc, or other equipment to prepare the seed bed for the seeding and protection.

The maintaining and controlling of traffic shall be the responsibility of the Contractor (See Traffic Control Notes). The Contractor shall furnish, install and maintain advance construction signs in accordance with the Manual on Uniform Traffic Control Devices, the Department's Standard Specifications for Road and Bridge Construction and applicable Standard Drawings.

The project may be closed to through traffic as directed by the project engineer or as specified in the traffic control notes. Access to all local businesses and residents shall be maintained at all times.

The installation of the pipe liner shall conform to the manufacturer's instruction and any applicable 2019 Standard Specifications and Standard Drawings.

The Contractor shall remove and dispose of all debris and waste in a manner acceptable to the Engineer and in accordance with the disposal requirements of Section 202.03 of the current Standard Specifications.

The Contractor shall furnish all equipment, materials, labor, including the "Culvert Pipe".

All applicable materials and construction requirements for pipe culverts shall be in conformance with Sections 701 and 612 of the current Standard Specifications, these "Special Notes", and applicable Standard Drawings.

All pipe flow line grades will be established by the Engineer and shall meet existing ditch channel elevations. Positive drainage with watertight seals between pipes are required upon completion of the project and shall be the responsibility or the Contractor.

Each Contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting his bid and shall thoroughly familiarize himself with existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department. All utilities shall be located and marked before construction begins.

Information shown on the drawings and in this proposal and the types and quantities of work listed are approximate only, and are not be taken as an accurate or complete evaluation of the material and conditions to be encountered during construction. 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.

The exact limits of Right-of-Way have not been established by the Department. The Contractor shall limit his activities to obvious Right-of-Way and work areas secured by the Department through Consent and Release of the adjacent property owners and shall be responsible for all encroachments onto private lands.

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

# **Special Note for Utility Coordination**

The contractor should note that there are underground utilities within this project corridor. It will be the responsibility of the contractor to have all utilities located through Call-Before-U-Dig, the NKWD and SD1. Any excavation or installation near an underground utility shall be performed by hand so that existing mains or service lines are neither broken nor disturbed. The new HDPE pipes shall be installed at the same elevation and grade as the existing.

# **Special Note For Liquidated Damages**

Contrary to Section 108.09, Liquidated Damages of \$1,000 per calendar day will be assessed for each day the roadway is closed beyond the allowable 7 day closure.

If work is delayed by inclement weather, the minimum work required to allow removal of the lane closure, as directed by the Engineer, shall be resumed immediately as soon as weather permits or the Department will begin to assess Liquidated Damages as specified herein.

All liquidated damages will be applied cumulatively.

All other applicable portions of Section 108 apply.

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# 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 NOTES FOR GUARDRAIL

# 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

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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,

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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.

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# SPECIAL NOTE FOR ASPHALT MILLING AND TEXTURING

Begin paving operations within <u>48 hours</u> 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

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# 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 Standard and Supplemental Specifications and the Standard and Sepia Drawings, current editions. 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, furnish new, or used in like new condition, traffic control devices at the beginning of the work and maintain in like new condition until completion of the work.

### PROJECT PHASING & CONSTRUCTION PROCEDURES

The roadway may be closed up to 7 consecutive calendar days. All proposed work shall be completed during this timeframe. Currently there are temporary traffic signals to allow one lane of traffic. The signals may be utilized during non-working hours if the contractor and project engineer agree. Liquated damages may be applied if all lanes are not reopened after 7 days. The Engineer may specify additional days and hours when work may be performed. Provide for approval by the Engineer a schedule of the proposed road closure 14 calendar days prior to beginning work. Variable Message Boards shall be placed one week in advance at each end of the project.

Do not erect lane closures on the following days:

April 10-12 Easter Weekend

May 23-25 Memorial Day Weekend

The Engineer may specify additional days and hours when lane closures will not be allowed.

At locations with two lanes, maintain alternating one way traffic during construction outside of allowable road closure. Provide a minimum clear lane width of 10 feet; however, provide for passage of vehicles of up to 16 feet in width. 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 CLOSURES

Do not leave lane closures in place during non-working hours.

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### **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.

### 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.

### TEMPORARY ENTRANCES

The Engineer will not require the Contractor to provide continuous access to farms, single family, duplex, or triplex residential properties during working hours; however, provide reasonable egress and ingress to each such property when actual operations are not in progress at that location. Limit the time during which a farm or residential entrance is blocked to the minimum length of time required for actual operations, not extended for the Contractor's convenience, and in no case exceeding six (6) hours. Notify all residents twenty-four hours in advance of any driveway or entrance closings and make any accommodations necessary to meet the access needs of disabled residents.

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Except as allowed by the Phasing as specified above, maintain direct access to all side streets and roads, schools, churches, commercial properties and apartments or apartment complexes of four or more units at all times.

The Department will measure asphalt materials required to construct and maintain any temporary entrances which may be necessary to provide temporary access; however, the Department will not measure aggregates, excavation, and/or embankment, but shall be incidental to Maintain and Control Traffic. The Engineer will determine the type of surfacing material, asphalt or aggregate, to be used at each entrance.

# **BARRICADES**

The Department will not measure barricades used in lieu of barrels and cones for channelization or delineation, but shall be incidental to Maintain and Control Traffic according to Section 112.04.01.

The Department will measure barricades used to protect pavement removal areas in individual units Each. The Department will measure for payment the maximum number of barricades in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual barricades 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 barricades the Engineer directs to be replaced due to poor condition or reflectivity. Retain possession of the Barricades upon completion of the work.

### PAVEMENT MARKINGS

If there is to be a deviation from the existing striping plan, the Engineer will furnish the Contractor a striping plan prior to placement of the final surface course. Install Temporary Striping according to Section 112 with the following exceptions:

- 1. Place Temporary or Permanent Striping before opening a lane to traffic; and
- 2. If the Contractor's operations or phasing requires temporary markings that must subsequently be removed from the final surface course, use an approved removable lane tape; however, the Department will not measure removable lane tape for separate payment, but will measure and pay for removable lane tape as temporary striping.

# PAVEMENT EDGE DROP-OFFS

Do not allow a pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation with an elevation difference greater than 1½". Place Warning signs (MUTCD W8-11 or W8-9A) in advance of and at 1500' intervals throughout the drop-off area. Dual post the signs on both sides of the traveled way. Wedge all transverse

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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. During daylight working hours only, the Engineer will allow the Contractor to use cones in lieu of plastic drums, panels, and barricades. Wedge the drop-off with DGA or asphalt mixture for leveling and wedging with a 1:1 or flatter slope in daylight hours, or 3:1 or flatter slope during nighttime hours, when work is not active in the drop-off area.

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

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

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# USE AND PLACEMENT OF CHANGEABLE MESSAGE SIGNS

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

# **Application**

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

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

# CMS should not be used for:

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

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# Messages

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

- Visible for at least ½ mile under ideal daytime and nighttime conditions
- Legible from all lanes a minimum of 650 feet
- Entire message readable twice while traveling at the posted speed
- 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

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# **Standard Abbreviations**

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

Word	Abbrev.	<b>Example</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 1275
Condition	COND	ICY COND POSSIBLE
Congested	CONG	HVY CONG NEXT 3 MI
Construction	CONST	CONST WORK AHEAD/EXPECT
Construction	CONST	DELAYS
Downtown	DWNTN	DWNTN TRAF USE EX 40
Eastbound	E-BND	E-BND I64 CLOSED/DETOUR
Lastoound	L-DND	EXIT 20
Emergency	EMER	EMER VEH AHEAD/PREPARE TO
Emergency	LIVILIC	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
, <b>.</b>	<b>,</b>	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 175/USE ALT RTE

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Mile	MI	ACCIDENT 3 MI AHEAD/ USE ALT RTE
3.4:	MAID	
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 1275
		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
Southeound	S BIND	EXIT 50
Speed	SPD	SLIP COND POSSIBLE/ SLOW SPD
Street	ST	MAIN ST CLOSED/USE ALT RTE
Traffic	TRAF	CUM PKWAY TRAF/DETOUR
Traffic	IKAI	EXIT 60
Vehicle	VEH	OVRSZ COMM VEH/USE I275
venicie	VEH	
XX .1 1	III DND	NEXT RIGHT
Westbound	W-BND	W-BND I64 CLOSED/DETOUR
*** 1	******	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.

Abbrev.	Intended Word	<b>Word Erroneously Given</b>
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

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> TEMP WRNG

Temporary Warning

Temperature 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.

Reason/Problem

ACCIDENT ACCIDENT/XX MILES XX ROAD CLOSED XX EXIT CLOSED BRIDGE CLOSED

BRIDGE/(SLIPPERY, ICE, ETC.) CENTER/LANE/CLOSED DELAY(S), MAJOR/DELAYS

DEBRIS AHEAD DENSE FOG

DISABLED/VEHICLE
EMER/VEHICLES/ONLY
EVENT PARKING
EXIT XX CLOSED
FLAGGER XX MILES
FOG XX MILES
FREEWAY CLOSED

FRESH OIL HAZMAT SPILL

**ICE** 

**INCIDENT AHEAD** 

LANES (NARROW, SHIFT, MERGE, ETC.)

LEFT LANE CLOSED LEFT LANE NARROWS LEFT 2 LANES CLOSED LEFT SHOULDER CLOSED

LOOSE GRAVEL

MEDIAN WORK XX MILES

MOVING WORK ZONE, WORKERS IN ROADWAY

NEXT EXIT CLOSED NO OVERSIZED LOADS

NO PASSING NO SHOULDER ONE LANE BRIDGE Action

ALL TRAFFIC EXIT RT AVOID DELAY USE XX CONSIDER ALT ROUTE

**DETOUR** 

DETOUR XX MILES DO NOT PASS EXPECT DELAYS FOLLOW ALT ROUTE

KEEP LEFT
KEEP RIGHT
MERGE XX MILES
MERGE LEFT
MERGE RIGHT
ONE-WAY TRAFFIC
PASS TO LEFT
PASS TO RIGHT
PREPARE TO STOP
REDUCE SPEED

**SLOW** 

SLOW DOWN
STAY IN LANE
STOP AHEAD
STOP XX MILES
TUNE RADIO 1610 AM
USE NN ROAD
USE CENTER LANE
USE DETOUR ROUTE
USE LEFT TURN LANE
USE NEXT EXIT
USE RIGHT LANE

WATCH FOR FLAGGER

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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

# I. DESCRIPTION

Except as provided herein, perform all erosion and water pollution control work in accordance with the Department's Standard and Supplemental Specifications, 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(s) 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

Except as provided herein, furnish all materials for erosion and water pollution control work in accordance with the Department's Standard and Supplemental Specifications, and Standard and Sepia Drawings, current editions, and as directed by the Engineer.

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

Except as provided herein, construct all erosion and water pollution control work in accordance with the Department's Standard and Supplemental Specifications, and Standard and Sepia Drawings, current editions, and as directed by the Engineer.

Erosion Control Page 2 of 3

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 Certification, and applicable state and local government agency laws, regulations, rules, specifications, and permits. Contrary to Section 105.05, in case of discrepancy between theses 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 steam.

Provide for erosion control measures to be in place and functioning prior to any earth disturbance within a drainage area. Compute the volume and size of silt control devices necessary to control sediment during each phase of construction. 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.

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# IV. MEASUREMENT

Contrary to Section 212.04 and 213.04, the Department will not measure Erosion Control items for separate payment, but shall be incidental to Pavement Removal, DGA, Leveling and Wedging, and JPC Pavement as applicable

**HDPE** Liner Out 70 FT of 72" OD HDPE Pipe CL2 Asph Base 0.75D PG64-22, as directed by the Engineer Remove guardrail, gabion baskets and failed CMP. Bulk Head 12 Ft. 30 Ft of Existing 78" CMP to remain Note: Edge of Pipe to remain in place may vary from these dimensions shown. FE01 059 0371 006-007 MP 6.075 - 6.110 TYPICAL SECTION KENTON COUNTY 1" CL2 Asph Surf 0.38D PG64-22 30 Ft. Grout 12 Ft. 6 Ft. Concrete Headwall Bulk Head

# 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 2016.

#### SUPPLEMENTAL SPECIFICATIONS

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

 $\underline{http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx}$ 

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#### 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.
- 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.
  - 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.

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- 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:

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

> \*Insert numerals as directed by the Engineer. Add other messages during the project when required by the Engineer.

#### 2.3 Power.

- Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide direct wiring for operation of the sign or arrow board from an external power source to provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.
- **3.0 CONSTRUCTION.** Furnish and operate the variable message signs as designated on the plans or by the Engineer. Ensure the bottom of the message panel is a minimum of 7 feet above the roadway in urban areas and 5 feet above in rural areas when operating. Use Class I, II, or III signs on roads with a speed limit less than 55 mph. Use Class I or II signs on roads with speed limits 55 mph or greater.

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

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

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

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

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

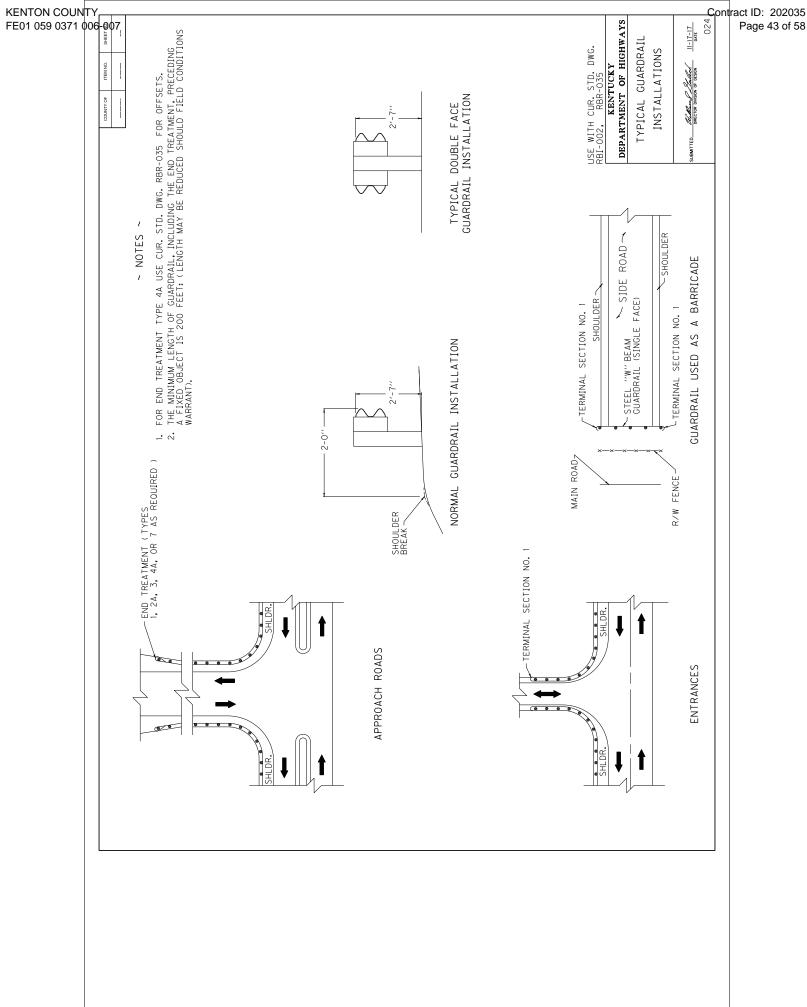
**5.0 PAYMENT.** The Department will pay for the Variable Message Signs at the unit price each. The Department will not pay for signs replaced due to damage or rejection. Payment is full compensation for furnishing all materials, labor, equipment, and service necessary to, operate, move, repair, and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

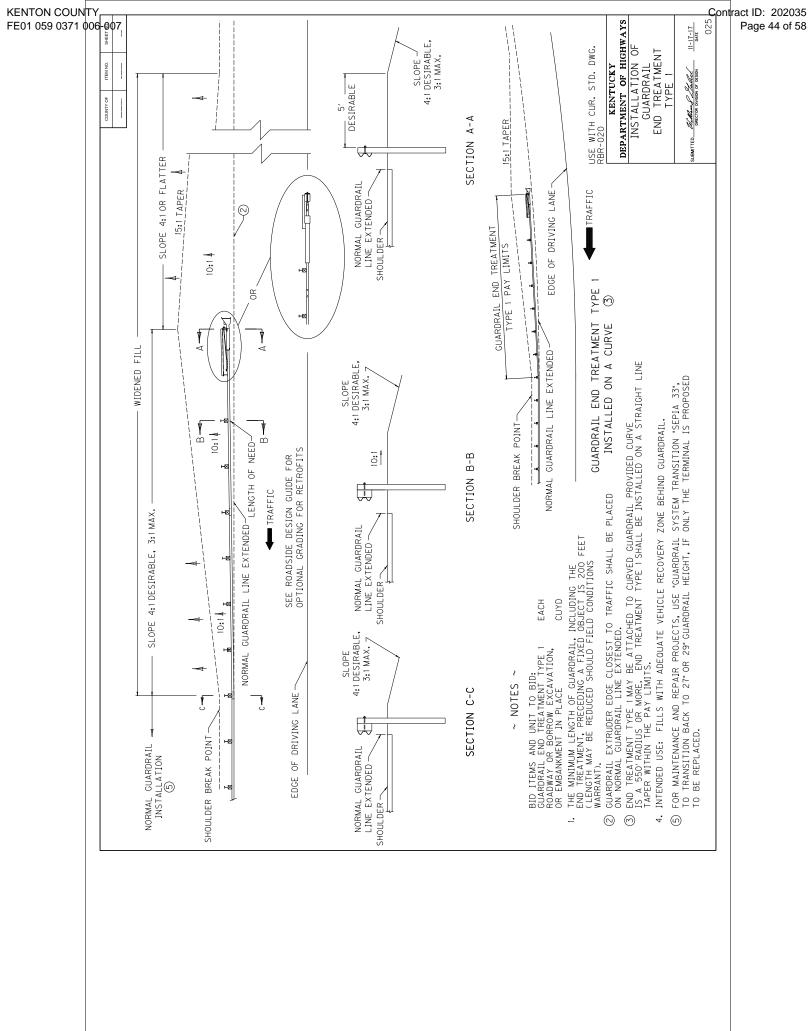
CodePay ItemPay Unit02671Portable Changeable Message SignEach

Effective June 15, 2012

## **2016 KENTUCKY STANDARD DRAWINGS**SUPPLEMENTS TO STANDARD SPECIFICATIONS TABLE OF CONTENTS

GUARDRAIL COMPONENTS	RBR-005-11
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	
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS	RDI-005-04
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS	
CULVERT & STORM SEWER PIPE TYPES & COVER HEIGHTS	
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
NON-CIRCULAR PIPE ALTERNATES	RDI-016-03
PIPE BEDDING FOR CULVERTS, ENTRANCE AND STORM SEWER PIPE	RDI-020-09
PIPE BEDDING, TRENCH CONDITION	
TEMPORARY SILT FENCE	
TEMPORARY SILT FENCE WITH WOVEN WIRE FENCE FABRIC	RDX-215-01
SILT TRAP - TYPE A	
SILT TRAP - TYPE B	RDX-225-01
SILT TRAP - TYPE C	RDX-230-01
CURVE WIDENING AND SUPERELEVATION TRANSITIONS	RGS-001-07
LANE CLOSURE TWO-LANE HIGHWAY	
LANE CLOSURE USING TRAFFIC SIGNALS	TTC-110-03
SHOULDER CLOSURE	
PAVEMENT CONDITION WARNING SIGNS	TTD-125-02
MOBILE OPERATION FOR PAINT STRIPING CASE I	
MOBILE OPERATION FOR PAINT STRIPING CASE II	TTS-105-02



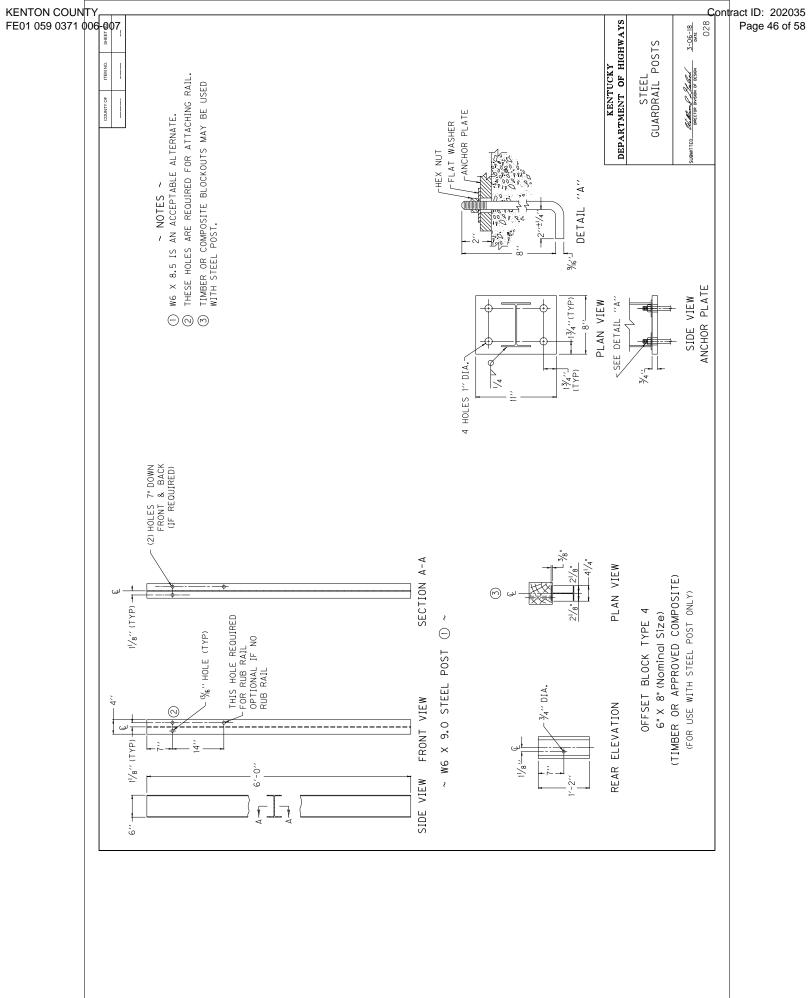


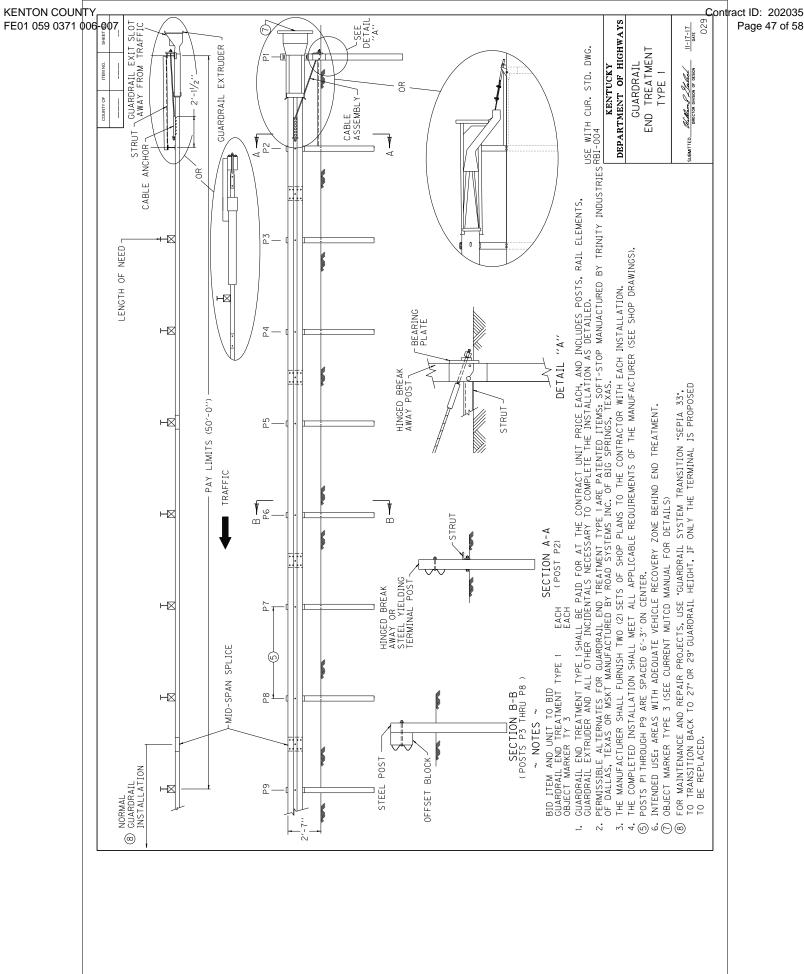
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Page 48 of 58 KENTON COUNTY FE01 059 0371 006-DEPARTMENT OF HIGHWAYS 031 SHEET NO. 11-17-17 DATE USE WITH CUR. STD. DWG. RBR-001, RBR-005, RBR-010 RBR-015, RBR-050 GUARDRAIL END TREATMENT TYPE 7 ALTERNATE ANCHOR 31/2" ITEM NO. ANCHOR PLATE ASSMEBLY (2) KENTUCKY Milliam & Halled DIRECTOR DIVISION OF DESIGN -1" DIA. COUNTY OF 2′-0" — 7/8" DIA. 7/8" DIA.  $\odot$ FRONT VIEW -1,-6 -2'-0"  $\Theta$ ٿ. ٿ و DETAIL "A"  $2' \times 1' \times 1/2$ " ANCHOR PLATE ASSEMBL  $4'' \times 5'' \times 1/2$ " TAB PLATE BOL 6 BOLT  $\odot$ ., 4 %" DIA.  $\times$  2%" HEAVY HEX HD 2' x 18" x 1/4" SOIL PLATE 3/4" DIA. x 2" HEAVY HEX HD w/NUT & (2) FLAT WASHERS w/NUT & (2) FLAT WASHERS TAB PLATE DESCRIPTION OF MATERIAL 7/8" DIA.-6′-01/2′′ W6×15 W-BEAM BILL ,,0-,9 7/8" DIA. SIDE VIEW 3′-0′′ (5) 9 OTY. SOIL PLATE ) -1 2′-0" ġ 4 (9) (0) 101/4" . 91/ 1-5 (0) 1,-6 BID ITEM AND UNIT TO BID CUARDBAIL END TREATMENT TYPE 7 SHALL BE TO THE PAY LIMITS CUARDBAIL END TREATMENT TYPE 7 SHALL BE TO THE PAY LIMITS AS DETAILED AND THE CONTRACT UNIT PRICE EACH SHALL INCLUBE TERMINAL SECTION NO. 2, STEEL "W" BEAM GUARDRAIL (SINGLE FACE), GUARDRAIL GSTS MI, STEEL MOHONP PLATE AND POST, SOIL PLATE, TAB ATTES, EXCAVATION, LABOR, HARDWARE AND ALL INCIDENTALS NECESSARY FOR THE INSTALLATION. THE DESIREABLE OFFSET DISTANCE FROM THE NORMAL GUARDRAIL LINE SHALL BE 4'-0'. THE MINIMUM OFFSET DISTANCE FROM THE NORMAL GUARDRAIL LINE IS ZERO FEET. IO. SEE CUR. STD. DWG. RBR-001, RBR-005, RBR-010 AND RBR-015 FOR APPLICABLE DETAILS AND SPECIFICATIONS. SPLICE BOLTS AT TERMINAL SECTION NO. 2 SHALL BE LOOSELY TIGHTENED AND CENTERED TO ALLOW MAXIMUM MOVEMENT DUE TO EXPANSION. ONE (1)"//6 " ROUND WASHER AND (1) RECTANGULAR PLATE WASHER REQUIRED FOR EACH SPLICE BOLT, AT TERMINAL SECTION NO. 2. LEAVE CLEARANCE IN BETWEEN TAB PLATES FOR GALVANIZED W6  $\times$  15 W-BEAM POST. 25:1 TAPER - SEE DETAIL "A" FOR METAL PLATE PLACEMENT 2'-0" MIN. 8'-0" DES. ELEVATION VIEW 6 PLAN VIEW 6'-01/2" GRADE LINE 5,-0, ~ NOTES ~ TERMINAL SECTION NO. 2-SOIL PLATE

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KENTON COUNTY FE01 059 0371 006-Contract ID: 202035 Page 49 of 58 032 DEPARTMENT OF HIGHWAYS 11-17-17 DATE SHEET NO. ISOMETRIC VIEW USE WITH CUR. STD. DWGS. RBM-020, RBR-060 DELINEATORS FOR GUARDRAIL ITEM NO. KENTUCKY Milliam & Halled.
DIRECTOR DIVISION OF DESIGN COUNTY OF WHEN CONCRETE BARRIERS EXTEND ACROSS BRIDGE STRUCTURES IN LIEU OF STEEL BEAM GUARDRAIL, DELINEATORS SHALL BE INSTALLED AT SAME VERTICAL ALIGNMENT AS ON THE GUARDRAIL, AND DELINEATORS SHALL COMPLY WITH CURRENT STANDARD DRAWING RBM-020. DELINEATOR DELINEATORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, BID ITEMS AND UNIT TO BID
DELINEATOR FOR GUARDRAIL B/W
DELINEATOR FOR GUARDRAIL M/W
DELINEATOR FOR GUARDRAIL M/Y
DELINEATOR FOR GUARDRAIL M/Y
DELINEATORS SHALL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE EACH AND
SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR ONE COMPHETE INSTALLATION. DIMENSIONS SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MANUFACTURER'S TOLERANCES. DELINEATORS SHALL NOT BE INSTALLED WITHIN THE PAY LIMITS OF THE END TREATMENT. DELINEATOR SHAPE AND DIMENSIONS ARE SHOWN FOR ILLUSTRATION PURPOSES ONLY. TYPES OF DELINEATORS PERMITTED SHALL BE FROM THE LIST OF APPROVED MATERIALS. SPACING SHOULD BE ADJUSTED IN CURVES SO THAT SEVERAL DELINEATORS ARE ALWAYS SIMULTANEOUSLY VISIBLE TO THE ROAD USER. APPROXIMATE DELINEATOR SPACING - MONO-DIRECTIONAL WHITE DELINEATOR FOR GUARDRAIL FACING TRAFFIC - MONO-DIRECTIONAL YELLOW DELINEATOR BI-DIRECTIONAL WHITE DELINEATOR FOR GUARDRAIL FACING TRAFFIC 100 50, FOR GUARDRAIL FACING TRAFFIC DELINEATORS SHALL BE MANUFACTURED FROM 12 GA. GALVANIZED STEEL. BI-DIRECTIONAL WHITE DELINEATOR FOR GUARDRAIL FACING TRAFFIC GUARDRAIL DELINEATORS SHALL BE REQUIRED ON ALL GUARDRAIL, PLACEMENT OF DELINEATORS FOR GUARDRAIL TANGENT CURVE TRAFFIC TRAFFIC TRAFFIC NOTES TRAFFIC DIMENSIONS SHOWN ARE FOR ONE VERSION OF A WEB-MOUNTED CUARDRAIL DELINEATOR. DELINEATORS WITH ALTERNATE DIMENSIONS MAY BE CONSIDERED FOR INCLUSION ON THE APPROVED PRODUCTS LIST. SIDE VIEW SIDE VIEW GUARDRAIL DELINEATOR ъ. 4. c. o. TYPE IX SHEETING, YELLOW OR WHITE 2 1/2" TRAFFIC 1/2" ~ **DELINEATOR** FRONT VIEW PLAN VIEW - 1 1/2"-2, FRONT VIEW GUARDRAIL

-2′-8″

6′-0′′

NORMAL GUARDRAIL CONSTRUCTION (SEE GUARDRAIL SYSTEM TRANSITION "SEPIA 33")

SHOULDER BREAK

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## **PART III**

## EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

#### Contract ID: 202035 Page 52 of 58

## 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.

#### 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.

- 3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.
- 4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administrating agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

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#### **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: <a href="https://www.eProcurement.ky.gov">https://www.eProcurement.ky.gov</a>.

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

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

# EMPLOYEE RIGHTS UNDER THE FAIR LABOR STANDARDS ACT

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

## **FEDERAL MINIMUM WAGE**

**\$7.25** 

1 =11 1100

**BEGINNING JULY 24, 2009** 

#### **OVERTIME PAY**

At least  $1\frac{1}{2}$  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.
- $\bullet$  Some state laws provide greater employee protections; employers must comply with both.
- $\bullet$  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.



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### **PART IV**

## **INSURANCE**

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

current edition

## **PART V**

## **BID ITEMS**

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#### **PROPOSAL BID ITEMS**

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**Report Date** 12/27/19

Section: 0001 - CULVERT REPAIR

LINE	BID CODE	ALT DESCRIPTION	QUANTITY	UNIT	<b>UNIT PRIC</b>	FP	<b>AMOUNT</b>
0010	00083	CRUSHED AGGREGATE SIZE NO 8 (LIMESTONE)	50.00	TON		\$	
0020	00221	CL2 ASPH BASE 0.75D PG64-22	25.00	TON		\$	
0030	00301	CL2 ASPH SURF 0.38D PG64-22	30.00	TON		\$	
0040	01987	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	3.00	EACH		\$	
0050	02230	EMBANKMENT IN PLACE	225.00	CUYD		\$	
0060	02351	<b>GUARDRAIL-STEEL W BEAM-S FACE</b>	187.50	LF		\$	
0070	02367	<b>GUARDRAIL END TREATMENT TYPE 1</b>	1.00	EACH		\$	
0800	02371	<b>GUARDRAIL END TREATMENT TYPE 7</b>	1.00	EACH		\$	
0090	02484	CHANNEL LINING CLASS III	75.00	TON		\$	
0100	02562	TEMPORARY SIGNS	150.00	SQFT		\$	
0110	02599	FABRIC-GEOTEXTILE TYPE IV	100.00	SQYD		\$	
0120	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0130	02671	PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		\$	
0140	02676	MOBILIZATION FOR MILL & TEXT	1.00	LS		\$	
0150	02677	<b>ASPHALT PAVE MILLING &amp; TEXTURING</b>	30.00	TON		\$	
0160	06514	PAVE STRIPING-PERM PAINT-4 IN	400.00	LF		\$	
0170	08100	CONCRETE-CLASS A	6.00	CUYD		\$	
0180	20257NC	SITE PREPARATION	1.00	LS		\$	
0190	21945EN	GROUT	30.00	LF		\$	
0200	24583EC	HDPE PIPE LINER 72 INCH OD EQ	70.00	LF		\$	

Section: 0002 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	<b>UNIT PRIC</b>	FP	AMOUNT
0210	02569		DEMOBILIZATION	1.00	LS		\$	