



**CALL NO. 308**

**CONTRACT ID. 172011**

**VARIOUS COUNTIES**

**FED/STATE PROJECT NUMBER FE01 121 DW17 0110000**

**DESCRIPTION VARIOUS ROUTES IN DISTRICT 11**

**WORK TYPE WATERBOURNE PAINT STRIPING**

**PRIMARY COMPLETION DATE 8/1/2017**

**LETTING DATE: January 27,2017**

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN STANDARD TIME January 27,2017. 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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**PART I**  
**SCOPE OF WORK**

ADMINISTRATIVE DISTRICT - 11

CONTRACT ID - 172011  
FE01 121 DW17 0110000  
COUNTY - VARIOUS  
PCN - MP12100001711  
FE01 121 DW17 0110000

VARIOUS ROUTES IN DISTRICT 11 -WATERBOURNE PAINT STRIPING  
GEOGRAPHIC COORDINATES LATITUDE 37:02:01.00 LONGITUDE 83:49:31.00

COMPLETION DATE(S):

COMPLETED BY 08/01/2017	SPECIFIED COMPLETION DATE - ALL ITEMS IN CONTRACT
COMPLETED BY 06/01/2017	SPECIFIED COMPLETION DATE - PRIORITY ROUTES
5 WORKING Days	REMOVE STRIPING ERRORS AND SPILLS
15 CALENDAR Days	RESTRIPING ROUTES WITH FAILED RETROREFLECTIVITY

## **CONTRACT NOTES**

### **PROPOSAL ADDENDA**

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

### **BID SUBMITTAL**

Bidder must use the Department's Expedite Bidding Program available on the Internet web site of the Department of Highways, Division of Construction Procurement. ([www.transportation.ky.gov/construction-procurement](http://www.transportation.ky.gov/construction-procurement))

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.

### **SPECIAL NOTE FOR COMPOSITE OFFSET BLOCKS**

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

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

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

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

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

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

Questions about projects during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by fax (502) 564-7299 or email to [kytc.projectquestions@ky.gov](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.

06/01/16

**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 Expedite Bidding Program. Submittal of the Affidavit should be done along with the bid in Bid Express.**

03/01/2011



**NATIONAL HIGHWAY**

Be advised that some routes in this project are on the NATIONAL HIGHWAY SYSTEM.

**SPECIAL NOTES FOR WATERBORNE PAINT STRIPING  
AND DURABLE WATERBORNE PAINT STRIPING  
2017 DISTRICT WIDE CONTRACTS – DISTRICT 11**

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**DESCRIPTION**

Except as specified herein, perform all work according to the Commonwealth of Kentucky, Transportation Cabinet, Department of Highways' 2012 Standard Specifications for Road and Bridge Construction; Supplemental Specifications; applicable Standard and Sepia Drawings; applicable Special Notes and Special Provisions; and Kentucky Methods; current editions. Section references are to the Standard Specifications.

**SCOPE OF WORK**

Furnish and apply waterborne striping paint for 4 inch lines and durable waterborne striping paint for 6 inch lines, reflectorized with glass beads, to the sections of roadway provided in this contract with an updated listing provided at the pre-construction meeting. This contract is for the installation of centerlines, lane lines, edgelines, ramp lines, dotted lines and gore markings only. Gore marking materials shall be the same as the mainline of the roadway. Special markings such as stop bars, crosswalks, cross-hatching, railroad markings, etc. are not to be installed under this contract.

Intersection approach markings such as the edgelines of large painted islands or edgelines on mountable medians may be included at the discretion of the Engineer provided they can be painted by the striping truck. Markings that would require application by equipment other than the striping truck are not to be installed under this contract.

Retrace existing lines on the listed routes. The Department will pre-mark any section of roadway where there are no existing markings, old markings are no longer visible, or where the existing markings are to be changed. Do not place edge lines on any section of roadway where edgelines do not currently exist without written authorization from the Chief District Engineer.

**MATERIALS FOR WATERBORNE AND DURABLE WATERBORNE PAINT STRIPING**

*PAINT:* Furnish paint materials for this project to meet the performance requirements detailed in Sections 842 and 846 of the Standard Specifications, except that yellow composition shall have a contrast ratio at 15 mils wet film thickness of 0.980.

Submit initial samples for each paint formulation for approval prior to initiation of the striping operation. The Contractor's paint manufacturer may submit the initial sample directly to the Department. The Department will obtain subsequent samples of paint in accordance with the

## Waterborne & Durable waterborne Paint Striping Page 2 of 12

Materials Field Sampling Manual when striping operations are in progress. A minimum of one sample will be obtained per color, per truck, per week and shall represent the quantity of striping applied per week. Deductions for application of non-specification paint shall be assessed to the quantity of striping represented by the sample.

**BEADS:** Use sufficient beads to ensure the pavement marking material meets retroreflectivity requirements. The Department will evaluate beads as part of the installed pavement marking in accordance with Kentucky Method 202 or 203 as applicable. Testing of the coatings, gradation and quality of the product applied shall be the responsibility of the contractor.

### **MATERIALS SAMPLING AND ACCEPTANCE**

If two or more random samples obtained during striping operations fail to meet minimum compositional requirements, striping operations shall be discontinued at the discretion of the Engineer. In the event striping operations are discontinued, the Department will randomly sample and test each batch of paint the contractor has in stock at the storage location.

For batches of paint that fail to meet the minimum compositional criteria, the stock material will be rejected. The contractor will be required to remove all failing paint from his central storage location. Batches that are tested and found to be in compliance with the compositional requirements may be used. After the Department has sampled all of the material at the central storage area, sampling and testing will resume according to the Materials Field Sampling Manual as soon as striping operations resume.

A deduction in payment will be made for any paint used that fails to meet ~~the~~ material requirements according to Sections 842 and 846 as applicable.

### **EQUIPMENT**

Each striper shall be equipped with electrical foot counters. The counters shall individually tabulate the amount of footage applied by each striping gun on the carriage, whether solid or dashed. The counters shall be capable of measuring up to six digits and shall have a reset feature. The counters shall be calibrated in the presence of a Department representative to insure an accurate measurement of the paint applied. Perform the calibration prior to starting striping operations and as necessary thereafter. When done, the Department's representative will record the calibrations on the Engineer's Daily Work Report (DWR).

Each striper shall be equipped with an accurate dashing mechanism, capable of being adjusted to retrace existing lane line, dotted lines or centerline markings as directed by the Engineer. The striper shall also be equipped with a detection device that will automatically cutoff the paint guns when a raised or recessed pavement marker is detected in the pavement. The Contractor, at his own expense, shall replace or adequately clean any pavement marker lens that is painted.

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Equip each striper with a Data Logging System (DLS) that will record operational details during striping operations, store data, and generate and export reports on a daily basis to the manufacturer's secure server. Provide only DLS equipment certified by the manufacturer. Ensure the data is in Microsoft Excel format, or a comma or spaces delimited text file adequate for insertion into a computerized spreadsheet. The DLS shall monitor and report the quantities of paint and beads consumed in line and calculate, in real time, the gallons of paint per mile, average wet film thickness, and pounds of beads per gallon of paint for each line application. The DLS shall monitor and report the ambient temperature, pavement temperature, and paint temperature, and record the data at the beginning of each line application and at a minimum of 1 mile increments during application. The DLS shall be capable of storing and supplying the necessary scaling and calibration parameters to the flow meters, and shall provide a means of adjusting the scaling factor as necessary. The DLS shall include a remote cab mounted display, which shall indicate in real time, pavement temperature, application rate of paint in gallons per mile, paint film thickness in mils, and application rate of beads in pounds per gallon. In addition the Contractor's striper shall also be equipped with a calibrated measuring device for monitoring quantities of paint and beads consumed in line. Submit to the Engineer the Dailey Striping Report (DSR) and export to the secure server a DLS report as raw data, and as an Excel spreadsheet containing the following information: route, the beginning and ending mile points, the beginning and ending coordinates determined by a Global Positioning System receiver with a 16 foot accuracy and the direction of travel, line type, line width, line color, direction of application, weight of paint applied in pounds or number of strokes counted, appropriate scaling factors, paint film thickness in mils, paint application rate in gallons per mile, bead application rate in pounds per gallon, paint temperature obtained immediately after the heat exchanger, ambient temperature, pavement temperature, and vehicle speed in miles per hour. Application and temperature data shall be reported in one-mile increments for each line applied. Provide GPS mapping system that is capable of real time (within 20 minutes) tracking of material application rates, film thickness, beads pounds per gallon, vehicle speed, time, date, project numbers, operator manual data, and color coded alarms for film thickness. Film thickness alarms must have a tolerance of  $\pm 0.5$  mils. Provide access to stored data on a secure password protected website. The Department reserves the right to obtain any and all raw data recorded by the DLS at any time during this Contract. The Engineer may require field verification of the DLS operation and calibration at any time to ensure the accuracy of the DLS data and output. If field personnel suspect that the DLS data and/or output are not accurate, the Engineer may direct additional checks be performed.

Prior to starting striping operations, make all stripers available at a central location within Kentucky designated by the Department for inspection by the Department for compliance to Kentucky Method 64-267 and DLS requirements. Striping trucks that can fulfill the requirements of this method and these notes will be approved for use on this contract. Striping trucks that have not been approved for use by Department personnel will not be allowed to stripe as part of this contract. The Department reserves the right to perform random field verifications of striping equipment during this contract.

The Engineer may require the Contractor to provide detailed operating instructions from the manufacturer of the striping equipment and/or the DLS if quality or reporting issues arise at any time during the contract. The Contractor shall then be required to operate the striping equipment within the suggested operating guidelines of the manufacturer, with particular emphasis on the

## Waterborne & Durable waterborne Paint Striping Page 4 of 12

speed of the striping operation, or make other adjustments until the quality of the striping is satisfactory to the Engineer.

The Contractor shall provide a separate sweeping unit powerful enough to remove normal highway dirt and debris. This unit shall not be a part of the striper.

### **CONSTRUCTION**

Except as specified herein apply all striping according to Section 713.

### **SURFACE PREPARATION**

Prepare the pavement surface for the striping operation in accordance with Section 713.03.02. Sweep all pavement surfaces prior to striping and maintain the cleaning operation far enough in advance of the striping operation to prevent any dust from the cleaning operation from mixing with the paint. The sweeper must maintain contact with the roadway. When the Engineer determines abnormal amounts of debris or other material have accumulated beyond the capability of the required sweeping unit which will require shoveling or other means to remove, the Engineer will make arrangements, prior to painting, to have the material removed by the Department or that section of roadway will be deleted from the contract.

### **QUALITY CONTROL (QC) and QUALITY ASSURANCE (QA)**

The Contractor shall designate a Quality Control Coordinator (QCC) for the project who will be the contact person for any questions or concerns regarding the quality of the work performed under this contract. The QCC shall:

- Hold current qualification from the Department as a Pavement Marking Inspection Technician;
- Plan and oversee the Contractor's evaluation of the lines applied on the project;
- Complete and submit Daily Striping Reports to the Engineer within 24 hours of completion of that days striping;
- Ensure that the DLS manufacturer submits electronic DLS raw data and Excel spreadsheets from the secure server by e-mail, at the e-mail addresses provided at the preconstruction meeting, to designated field personnel no later than the first working day following application of the pavement markings.
- Verify the electronic records are completed and received by the Engineer prior to the records being removed from the pavement marking equipment.
- Coordinate and review or Perform KM-202, for each section of striping and provide completed test reports (electronic copy) along with printouts from the handheld retroreflectometer to the Engineer within one (1) working day of completion;
- Document all adjustments made to the application process to consistently produce the quality of line desired;

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- Notify the Engineer of any changes in the striping work plan that are determined necessary
- Inform and mobilize crews to complete restriping or corrective work (after notification by the Department);
- Supply the appropriate certifications for paint and the DLS to the Engineer assigned to the particular project at the time of sampling;
- Track the quantities of materials supplied by the Contractor's vendors and applied by the painting crew;
- Meet with the Engineer to discuss and/or conduct field reviews on the project throughout the execution of the contract;
- Perform QC testing in accordance with KM-202 for each section of striping on zones selected by the Department based on KM-64-113 The Department will **NOT** provide advanced notice of the randomly selected zones to the Contractor prior to the striping being placed, but will only provide the locations for each randomly selected zone on the day of the test. The Department's QA inspector will coordinate the date of the test with the Contractor's QCC. .

At the Pre-construction Conference, the Contractor shall furnish the Department for approval a Quality Control Plan (QCP) that covers in detail the following items:

- The name, address, phone and fax numbers for the QCC;
- The names of individuals other than the QCC taking readings in accordance with KM-202 (these people shall hold qualification from the Department as Pavement Marking Inspection Technicians);
- An overall work plan which states the estimated starting and completion dates for the entire project, the number of crews to be used on the project and a general description of how the project will be completed;
- A description of the striping equipment to be used on the project, including make and model of each striper, minimum and maximum operating speeds, and type of instruments to be used to calibrate the flow of paint and beads;
- The frequency and method to be used to monitor application rates and quality of the line (specifically with regard to retroreflectivity, width, thickness, bead distribution, tracing accuracy, etc.);
- A list of paint(s) and bead(s) to be used in this contract along with a statement from the paint manufacturer that indicates the recommended minimum and maximum application temperatures for ambient temperature, pavement temperature, paint temperature, and guidelines for any other environmental factors that would adversely affect the successful performance of the paint;
- The contact person, phone, e-mail and fax numbers for reporting claims for paint on vehicles
- A description and product literature of the reflectometer to be used by the Contractor;
- A description, product literature, and manufacturer's certification of the DLS to be used by the Contractor;
- The manufacturer's sampling procedure for sampling paint from the tote.

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Obtain the Engineer's acceptance of the Contractor's QCP prior to the start of work. The Department reserves the right to require the Contractor to make changes in the QCP to obtain the quality specified in the contract.

After acceptance by the Department, the Contractor shall notify the Engineer in writing of any proposed change(s) to the QCP. Proposed changes are subject to acceptance by the Department.

The Department will perform Quality Assurance (QA) testing on (at least) one segment of each section of striping completed by the Contractor. QA testing is intended to verify the Contractor's QC test data. Upon receipt of the Contractor's QC test reports for each section, the QA Inspector will randomly select (at least) one segment for QA evaluation. The Department will **NOT** provide advance notice to the Contractor of the selected segment. The Department will perform the test in accordance with KM-202 with the exception that QA testing will be conducted within the later of 30-60 calendar days after the striping application or 2 weeks of receipt of the Contractor's QC report.

The Department will base payment for each section evaluated in accordance with KM-202 on the Contractor's QC test results if the QC and QA mean values for each segment selected for QA testing differ by less than 10% of the QA mean value.

If a dispute should arise regarding the acceptability of the Contractor's QC test results the dispute resolution shall be conducted as follows:

1. If the retroreflectivity values obtained during the QA testing within a segment indicate a change in pay quantities (i.e. QC readings are passing and QA readings are failing) and the mean values differ by more than 10% of the QA mean value; additional testing will be required. Discard the original QC and QA test results for the section in question. The QA will randomly establish three new zones, in accordance with KM-113, in each segment within the section in question. The QC and QA will jointly evaluate each new zone within the section in accordance with KM-202 (with the exception of the evaluation period if greater than 60 days). The QC test results for each segment will be used for evaluation of the section if the QC and QA mean values for each segment differ by less than 10% of the QA mean value.
2. If the variance between QC and QA testing does not indicate a change in the pay quantities for the section (i.e. QC and QA readings are both passing) however, the QC mean values differ by more than 10% of the QA mean value, additional readings will not be required. Accept the QC test results for evaluation of the section. However, additional testing within the section in question should be conducted as soon as possible to determine the cause of the discrepancy. The Contractor and the Engineer shall document the resolution to the discrepancy.
3. If resolution to a dispute or variance of QC and QA test results cannot be achieved by the QC and QA, additional testing will be required. Discard the QC and QA test results for the section in question. Additional testing will be conducted by the QC, QA, and representatives of Central Office Division of Materials. Additional testing will be conducted within two

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weeks of receipt of a written request from the Engineer to the Division of Materials for each section in question. Three new zones, randomly selected in accordance with KM-113, will be established by the QA for each segment of the section in question. Each instrument to be used for testing will be calibrated in the presence of Central Office representatives prior to initiation of testing. The QC, QA and Central Office representatives will obtain readings for each new zone in accordance with KM-202 (with the exception of the evaluation period if greater than 60 days). The QC test results for each segment will be used for evaluation of the section if the QC mean values for each segment differ by less than 10% to the mean value obtained by Central Office. The QA test results for each segment will be used for evaluation of the section if the QC mean values differ by more than 10% to the mean value obtained by Central Office and the QA mean value differs by less than 10% to the Central Office mean value. If neither the QC nor QA mean values meet these requirements, the Central Office mean value for each segment will be used to evaluate the section in question. These results will be final and the basis of payment for the section in question.

The Contractor shall incur all costs associated with additional testing performed by Department personnel for dispute resolution that does not result in the use of QC test data as the basis of payment. These costs will include the cost to maintain and control traffic.

The Department reserves the right to take over the QC portion of testing. In the event that the Department exercises this option, the Contractor will incur the cost of testing performed by the Department.

The Department reserves the right to evaluate retroreflectivity on designated routes, in whole or in part, in accordance with KM-203. The Department will identify routes or portions of routes to be evaluated in accordance with KM-203. The evaluation of a section in accordance with KM-203 will be conducted at the Departments expense.

The Department will require the Department's approved vendor performing retroreflectivity evaluation in accordance with KM-203 to successfully demonstrate compliance to his/her quality control procedures prior to collection of data for this contract. The Department will select an appropriate test site for demonstration purposes and conduct joint evaluations of both yellow and white longitudinal markings within the test site using approved 30M geometry handheld instruments. The demonstration will be deemed successful if the mean average obtained by the approved vendor differs by less than 10% to the mean average obtained by the Department for each marking evaluated within the test site.

The Department will base payment for each section evaluated in accordance with KM-203 solely on the test results obtained by the Department's approved vendor. Completed test results submitted by the Department's approved vendor will be considered final and are not subject to dispute.

The Department will furnish the Contractor with a blank electronic copy of the Contractors Daily Striping Report (DSR). The Contractor shall complete and furnish this standard DSR to the Engineer's office daily for each crew for each color and width of line applied. The information on the DSR shall reflect the milepoints and quantities for striping completed for that day and for



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that crew. The Contractor shall also include with the DSR the certification for the paint used on that day's striping according to Section 842.05 and 846.05, as applicable.

Export DLS reports on a daily basis to the manufacturer's secure server. Ensure that the DLS manufacturer submits electronic DLS raw data and Excel spreadsheets from the secure server by e-mail, at the e-mail addresses provided at the preconstruction meeting, to the designated field personnel no later than the first working day following application of the pavement markings. Verify the electronic records are completed and received by the Engineer prior to the records being removed from the pavement marking equipment.

### **APPLICATION OF STRIPING**

Roadways shall be marked with 4", 6", 8" and 12" lines as indicated in the summaries and/or as directed by the Engineer. The four-inch line shall be not less than four inches nor more than five inches in width. The six-inch line shall be not less than six inches nor more than seven inches in width. The centerline of all newly applied lines shall be within one inch of the centerline of the existing stripe. Mark all Interstate and Parkway System Routes and other routes listed on the summaries for 6 inch striping using Durable Waterborne Paint meeting the requirements of Section 846, except as specified herein. Mark all other routes with four-inch lines using Waterborne Paint meeting the requirements of Section 842, except as specified herein. Apply Gore area markings at twice the width of the normal line width on that portion of roadway. All lines shall have distinct, clean edges with proper bead distribution across the entire width and length of the line.

Passing zones and lane lines shall be installed as a 10' segment of paint with a 30' gap. The length of the 10' segment shall not be less than 10' nor longer than 10 feet 6 inches. The stripe-gap cycle shall be not less than 39 feet 6 inches and no longer than 40 feet 6 inches.

Apply paint, in a single pass, in accordance with the application rates in Section 713.03.03. Contrary to Section 713.03.03, the Contractor may apply beads at any application rate that meets the retroreflectivity requirements of Section 713.03.05.

The Contractor shall be responsible for protecting the painted line from traffic until dry in order to eliminate tracking. Retroreflectivity readings will be taken on zones with substantial amounts of tracking and the readings will be used in the calculation of payment. If the contractor elects to use additional traffic control devices beyond what is specified in the TRAFFIC CONTROL PLAN, the additional cost shall be incidental to the bid item "Maintain and Control Traffic".

If the Engineer determines that the quality of the striping applied by the Contractor is unsatisfactory with regard to retroreflectivity, bead distribution, paint thickness, overspray, accuracy of retracing, line width, consistency, tracking, etc., the Engineer may stop the striping operation immediately until the Contractor can demonstrate that the problem has been corrected. If it is determined by the Engineer that the striping is not applied at the specified application rate, restriping will be required.

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### **CLEANING OF APPLIED STRIPING**

The contractor has the option to clean accumulated debris from affected route prior to performing QC testing. Cleaning is defined as a single pass using the broom truck to remove accumulated debris from the affected striping. Notify the Engineer 48 hours prior to performing the cleaning operations.

### **MARKING REMOVAL**

The Contractor shall be responsible for all necessary cleanup of any paint or other material that is spilled onto the pavement or elsewhere as a result of his operations and for correcting any striping error (including tracking and rain damage) that the Engineer determines removal to be required. Contrary to Section 713.03.04, remove all striping errors or paint spills by water blasting only (see attached note) at no additional cost to the Department. This removal process shall be performed in a manner that shall not be detrimental to the pavement. Upon notification of a striping error or paint spill by the Engineer, the Contractor shall be required to begin the process of correcting the striping error or paint spill within five (5) working days and shall work continuously to complete the corrective work prior to striping any other section of roadway included in this contract.

Prior to retracing, the Engineer will notify the Contractor if existing striping errors need to be removed. Contrary to Section 713.03.04, remove all existing striping errors by water blasting only (see attached note). The Department will measure and pay for water blasting removal of existing stripes directed by the Engineer in linear feet.

### **PAINT ON VEHICLES**

The Contractor shall be responsible for addressing disputes with the public regarding paint on vehicles that occur as a result of his operations. All complaints from the public shall be addressed in a timely manner and the Contractor must demonstrate a “good faith” attempt to resolve disputes to the satisfaction of the citizen. However, the Contractor shall have the right to dispute fault and refuse settlement in cases where the Contractor feels that paint on the vehicle was a result of negligence on the part of the citizen. Unresolved disputes involving paint on vehicles shall be handled through the legal system. The Department shall not be held responsible for paint on vehicles under any circumstances.

### **RETROREFLECTIVITY REQUIREMENTS**

The minimum retroreflectivity requirements shall be in accordance with Section 713.03.05A of the Standard Specifications.

## Waterborne & Durable waterborne Paint Striping Page 10 of 12

Restriping will be required for striping that fails to meet the minimum retroreflectivity requirements. The provisions for restriping are described in the section of this contract entitled MEASUREMENT AND PAYMENT. Complete the restriping within 15 calendar days after notification by the Engineer except that no striping will be performed after **October 15, 2017**. All aspects of this specification shall apply to lines that are repainted due to failure to meet the requirements of this specification including the retroreflectivity requirements.

### **SCHEDULING**

At the Pre-construction conference, the Engineer may provide the contractor with a list of Priority Routes (not to exceed 10 percent of the total project estimate) which are to be striped prior to **June 1, 2017**. The painting of all scheduled routes shall be completed by **August 1, 2017**.

The Contractor shall coordinate the daily striping schedule, one week in advance, with the Engineer. The Contractor shall ensure that once striping begins on a section that ALL striping on that section must be completed within two weeks. Failure to comply with this requirement will result in withholding of pay estimates.

The Engineer may eliminate any route from the schedule at any time prior to striping if it is determined that the route does not require retracing. Also, the Engineer may add additional routes to be striped. The Contractor shall be notified of added routes prior to July 1, 2017.

### **CONTRACT COMPLETION AND LIQUIDATED DAMAGES**

All priority routes shall be striped by June 1, 2017. Contrary to the Standard Specifications, no time extension will be granted for failure to complete striping of these priority routes by the June 1, 2017 milestone completion date. Liquidated damages in the amount specified in Section 108.09 of the Standard Specifications will be assessed for each day that any priority route remains unstriped after June 1, 2017.

Sections that are required to be re-striped due to failure to meet retroreflectivity requirements must be completed within 15 calendar days after notification by the Engineer. The Department will assess Liquidated Damages in the amount specified in Section 108.09 of the Standard Specifications for each day beyond the 15 calendar days that the restriping is not completed and shall accrue until October 15, 2017. All re-striping must be complete by October 15, 2017. Failure to complete all necessary corrective work by the October 15, 2017 deadline will result in no additional payment for the stripe beyond the 50% that was initially paid for the installation of the stripe and payment will be based upon the Payment Schedule.

All routes that are required to be striped under this contract shall be completed by August 1, 2017. Contrary to the Standard Specifications, no time extension will be granted. Liquidated damages will apply in accordance with Section 108.09 of the Standard Specifications

## Waterborne & Durable waterborne Paint Striping Page 11 of 12

for failure to complete the striping by August 1, 2017. Liquidated damages will accrue until October 15, 2017; no striping shall be performed after this date.

Remove all striping errors and spills within five (5) working days after notification by the Engineer. Liquidated damages, in the amount specified in Section 108.09 of the Standard Specifications, shall apply for each day beyond the five (5) working days that the Contractor has not begun to correct the striping error/spill or continuously work to complete the corrective work.

The Department will apply all Liquidated Damages accumulatively.

### **RE-TESTING OF FAILURES**

The Department's costs associated with re-testing of striping failures for Kentucky Method 203 shall be reimbursed to the Department by the contractor. The reimbursement shall include mobilization of the Department's mobile striping vendor's mobile testing machine as well as the current per mile rate for the mobile striping according to the Cabinet's Master Agreement.

### **MEASUREMENT AND PAYMENT**

**STRIPING:** The Department will measure the paint striping of each type in linear miles of paint stripe. The Department will measure the quantity at twice the rate for a 4-inch line when an 8-inch line is applied or twice the rate for a 6-inch line when a 12-inch line is applied.

The Department will pay 50% of the Contract Unit Bid price for the applicable bid items after application of all striping to a particular section of roadway. Contrary to Section 104.02.02, the overrun and underrun formula shall not apply to this contract. The remaining payment will be made based upon the following procedure and the Payment Schedule:

1. Each section of striping will be evaluated in accordance with KM-202 or KM-203, as applicable, and the QC/QA testing specified herein, for the purpose of evaluating retroreflectivity.
2. If a Section is accepted in accordance with the appropriate Kentucky Methods, the Department will make final payment according to the Payment Schedule listed below.
3. If a section is not accepted in accordance with the appropriate Kentucky Methods, restripe the entire section within fifteen (15) calendar days after notification by the Engineer subject to the same requirements as the original striping at no additional cost to the Department. If the restriped Section is accepted in accordance with the appropriate Kentucky Methods, the Department will make final payment according to the following Payment Schedule. If the section is not restriped by October 15, 2017, the Department will not make final payment and the Contractor shall accept the deduction in payment for the section that has been determined to be unacceptable.

Waterborne & Durable waterborne Paint Striping  
Page 12 of 12

**Payment Schedule**

	Initial Payment	Final Payment	Total Payment
Section is Accepted	50%	50%	100%
Section is Not Accepted	50%	0%	50%

**QUALITY CONTROL:** The Department will measure and pay the quantity as one lump sum. The Department will not measure the QCP, the DLS, any actions and personnel required to carry out the QCP, any testing, any testing equipment, or any other work necessary to perform the specified QC/QA procedures for payment, but will consider them incidental to this item of work.

**MAINTAIN AND CONTROL TRAFFIC:** See Traffic Control Plan.

**LAW ENFORCEMENT OFFICER:** See Traffic Control Plan.

**WATER BLASTING EXISTING STRIPE:** See Special Note for Water Blasting Existing Stripe.

"

**SPECIAL NOTE FOR WATER'BLASTING GZHUPI 'STRIPE**

Vj ku'Ur gekn'P qvg'y kn'cr r n' "y j gtg'kpf kcvgf "qp"vj g'r rpu"qt "kp"vj g'r tqr qucnf""Ugevkqp" tghgtgpegu"j gtgk"ctg"vq"vj g'F gr ctvo gpvau"4234"Ucpf ctf "Ur gekkcvkpu"ht "Tqcf "cpf " Dtkf i g'Eqpwtvckp0

**1.0 DESCRIPTION.**""Tgo qxg'r cxgo gpvutkpi . "vgo r qtct { "qt"r gto cpgpv"htgo "cur j cnf" qt"eqpetgvg'r cxgo gpvutkpi "vmtc/j ki j "r tguwtg'y cvgt0"

**2.0 MATERIALS AND EQUIPMENT.**

**2.1 Truck Mounted Ultra-high Pressure Pump and Water Tank.**""Wug"c"tvenf j cklpi "c"ugr ctvg"j { f tqvckle"vcpuo kuukp"ecr cdng"qh"ur ggf "kpetgo gpw"qh"Ö3"hqv'r gt" o kpwg'cv'qr gtcvtu"fkvetgkq0"Wug"c"r wo r "ecr cdng"qh"r gkxgtkpi "c"o kpo wo "qh"52.222" r uk'vq"c"two r gt"o qwpvgf "f genfeqpvckkpi "cp"qr gtcvt"eqpvqngf "tqvckpi "o cplkqf "vj cv'ku" ur ggf "xctkcdng"wr "vq"cv'ngcu"5.222"tr o "cpf "ceegr w"kvgtcj cpi gcdng"y cvgtlgv"pq | ngu0" Rtqxf g" cni pgeguet { "y cvgtlgv"pq | | ng"ugwr u" cpf "r cvgtpu" vq" gpuwtg" ercgp" uwhkelpv" tgo qxcn0Gpuwtg"vj g'f genu"fkuej cti g'fkgeu"vj g'y cvgt"cpf "tgo qxcn'o cvgtkcn'kp"o c ppgt" vj cv'ku'pqvj c| ctf qvu"vq"xgi kengu"qt"r gf guntkpu0"

**2.2 Water.**"Eqphqto "vq"Ugevkqp": 250'

**3.0 CONSTRUCTION.** Dghqtg"uctkpi "y qtm"r tqxf g"vj g"Gpi kpggt"y kj "c"eqpvcevq" y qtnlj knqt { "qh"4"r tqlgew"y j gtg'utkpi "tgo qxcn'y cu'eqo r ngvgf "ceegr vcdn' "ht"o"uko knt" v' r g'qh'r cxgo gpv0"K'pq"j knqt { "ku'cxckcdng."eqo r ngvg"3.222"dkpgct"hgvg'qh'utkpi "tgo qxcn' cpf "qdvckp"vj g"Gpi kpggtu'cr r tqxcn'dghqtg'eqpvkpi 0'

Eqpf wev'utkpi "tgo qxcn'vpf gt"rpg'emjwgtu'o ggvkpi "vj g"eqpf kkpau"qh"vj g"O WEF " cpf "Mgpwenf "Ucpf ctf "F tcy kpi u"cpf "Ur gekkcvkpu0Y cvgtduv"vq"tgo qxg'vgo r qtct { "qt" r gto cpgpv'utkpi "eqo r ngvgf "cu"vj g"Gpi kpggt"fkgeu0"Y q"pqv'f co ci g"vj g'r cxgo gpv'kp" cp { "y c { "cpf "r tqvgev'cni'qkv'ugcu0"K'f co ci g'ku'qdugtxgf . "uqr "vj g'tgo qxcn'r tqeguu'wpkri" vj g'qr gtcvt"ecp"o cng"ej cpi gu'cpf "f go qpwtcvg"ceegr vcdng"utkpi "tgo qxcn0"Y gr ck"cp { " f co ci g"vq"vj g'r cxgo gpv0Xcewwo "cni'o ctnkpi "o cvgtkcn'cpf "tgo qxcn'f gdtku'eqpewtgpv" y kj "vj g'drcukpi "qr gtcvkp0"

**4.0 MEASUREMENT.**"Vj g'F gr ctvo gpv'y kn'o gcuwtg"vj g's wcpvkv' "kp"dkpgct"hgvg0Y j gp" vj g'tgo qxcn'ctgcay kf vj "gzeggf u": "kpej gu'cpf "c"ugeqpf "r cuu'ku'tgs vktgf . "vj g'F gr ctvo gpv" y kn'o gcuwtg"vj g"ngpi vj "qh"vj g"cf f kkpccn'r cuu"ht"Re { o gpv0"Vj g'F gr ctvo gpv'y kn'pqv" o gcuwtg"ht"r c { o gpv'cf f kkpccn'r cuugu"ht"y kf vj u'qh": "kpej gu'qt"ngu'qt"r cuugu"vq"ht vj gt" gtcf kcvg"o ctnkpi u0Vj g'F gr ctvo gpv'y kn'pqv'o gcuwtg"tgr ck"qh'f co ci gf "r cxgo gpv'ht" r c { o gpv'cpf "y kn'eqpukf gt"kv'kpekf gpv'vq"vj ku'kgo "qh'y qtn0"

**5.0 PAYMENT.** Vj g'F gr ctvo gpv'y kn'o cng"r c { o gpv'ht"vj g'eqo r ngvgf "cpf "ceegr vgf" s wcpvkvku'vpf gt"vj g'hmqy kpi <

Eqf g" Rcf "Kgo " " " Rcf "Wpkv  
44886GP "\*\*\*\*\*Y cvgt "Drcukpi "Gzkuvki "Utkr g"\*\*\*\*\*Nlpgct"Hqqv"

Vj g'F gr ctvo gpv'y kn'eqpukf gt"r c { o gpv'cu'ham'eqo r gpucvkp"ht "cni'y qtnl'tgs vktgf "vpf gt" vj ku'pqvg0'

Qevqdg"52."4234"

## **SPECIAL NOTE FOR CENTERLINE & EDGELINE RUMBLE STRIPES**

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Be advised there may be some centerline and edgeline rumble stripes to be retraced. Place centerline rumble stripes according to Standard Drawings TPM-155-02 and TPM-160-02. Place edgeline rumble stripes according to the detail drawings for centerline and edgeline rumble strips. Notify the Engineer if questions arise regarding the striping patterns. If necessary, the Engineer will obtain guidance from the District Traffic Engineer and/or the Division of Traffic.

### **SPECIAL NOTE FOR PROJECTS TO BE RESURFACED IN 2017**

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Be advised that some projects listed herein may be scheduled for resurfacing in 2017. The Engineer may delete the striping on these routes from this Contract.



## **COORDINATION OF WORK WITH OTHERS**

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Be advised, the Department may issue permits for work on the Department's right of way adjacent to or within the limits of this project. See Sections 107.06 and 107.14. The Engineer will coordinate the work of the Contractor and the permit holders.

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

Be advised the Department may be performing work adjacent to or within this project. The Engineer will coordinate the Department's operations with the Contractor's work. See Section 105.11.

The Department will not grant any time extension or monetary consideration, and will not consider any claims if the Contractor's forces are delayed in their operations.

## **TRAFFIC CONTROL PLAN DURABLE WATERBORNE AND WATERBORNE PAINT STRIPING**

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1. Maintain and Control Traffic in accordance with the Standard Specifications for Road and Bridge Construction, Supplemental Specification, Standard and Sepia Drawings, and the MUTCD, current editions.
2. Contrary to Section 112, include all items necessary to maintain and control traffic in the lump sum bid item “Maintain and Control Traffic”. The Department will measure and pay only the bid items listed; consider all other work and necessary items to be incidental to the listed bid items. The Department will measure and pay “Maintain and Control Traffic” as one lump sum.
3. Maintain possession of all temporary traffic control items, devices, materials, and incidentals, unless otherwise specified in the proposal, when no longer needed.
4. If the Contractor desires to deviate from the traffic control scheme outlined in the Standard Drawings, prepare an alternate plan and present it in writing to the Engineer. Do not use the alternate plan until reviewed and approved by the District Engineer and the Divisions of Construction, Maintenance, and Traffic Operations.
5. Provide for the Contractor’s vehicles to always move with and not across or against the flow of traffic. Do not allow vehicles to make U-turns at any location. Do not allow the striper to stop and back down the road or ramps to stripe gore lines and turn lanes. Require vehicles to enter or leave work areas in a manner that will not be hazardous to, or interfere with, normal traffic flow. Do not allow vehicles to park or stop within the right-of-way except within work areas designated by the Engineer. Do not allow personal vehicles to park within the right-of-way except in specific areas designated by the Engineer.
6. Do not allow the paint supply truck to operate as one of the traffic control vehicles shown on the Standard Drawings. If one of the required traffic control vehicles experiences mechanical problems or for some other reason is not available to remain in position as shown in the traffic control scheme, cease the striping operation until all required vehicles are in place.
7. Do not perform striping operations on any roadway during the peak times of the day, holiday periods, or special events as determined by the Engineer.
8. On two-lane, two-way highways, make provisions to the satisfaction of the Engineer to periodically allow traffic to safely pass the train of vehicles in the striping operation.

Traffic Control Plan  
Durable Waterborne & Waterborne Paint Striping  
Page 2 of 2

9. In low speed, urban situations, the Engineer may permit the Contractor to delete the intermediate trail vehicle between the striper and the final trail vehicle shown on the Standard Drawings.
10. If requested by the Contractor, the Engineer may approve Law Enforcement Officer Police Support on Interstate highways when striping operations are taking place. If the Contractor requests Law Enforcement Officer Police Support on other than Interstate Highways, provide written justification for the Engineer's approval. If approved, provide two (2) police support units for each lane closure, each unit consisting of an off-duty law enforcement officer from any police agency having lawful jurisdiction and a police car equipped with externally mounted flashing blue lights. Place the police support unit at locations determined by the Engineer. The Department will measure and pay for each approved individual police support unit on a per hour basis for the officer with the police vehicle.

## CONTRACT COMPLETION DATE AND LIQUIDATED DAMAGES

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All Priority Routes shall be striped by June 1, 2017. Contrary to the Standard Specifications, no time extension will be granted for failure to complete striping of these priority routes by the June 1, 2017 milestone completion date. Liquidated damages in the amount specified in **Section 108.09 of the Standard Specifications** will be assessed for each day that any Priority Route remains unstriped after June 1, 2017.

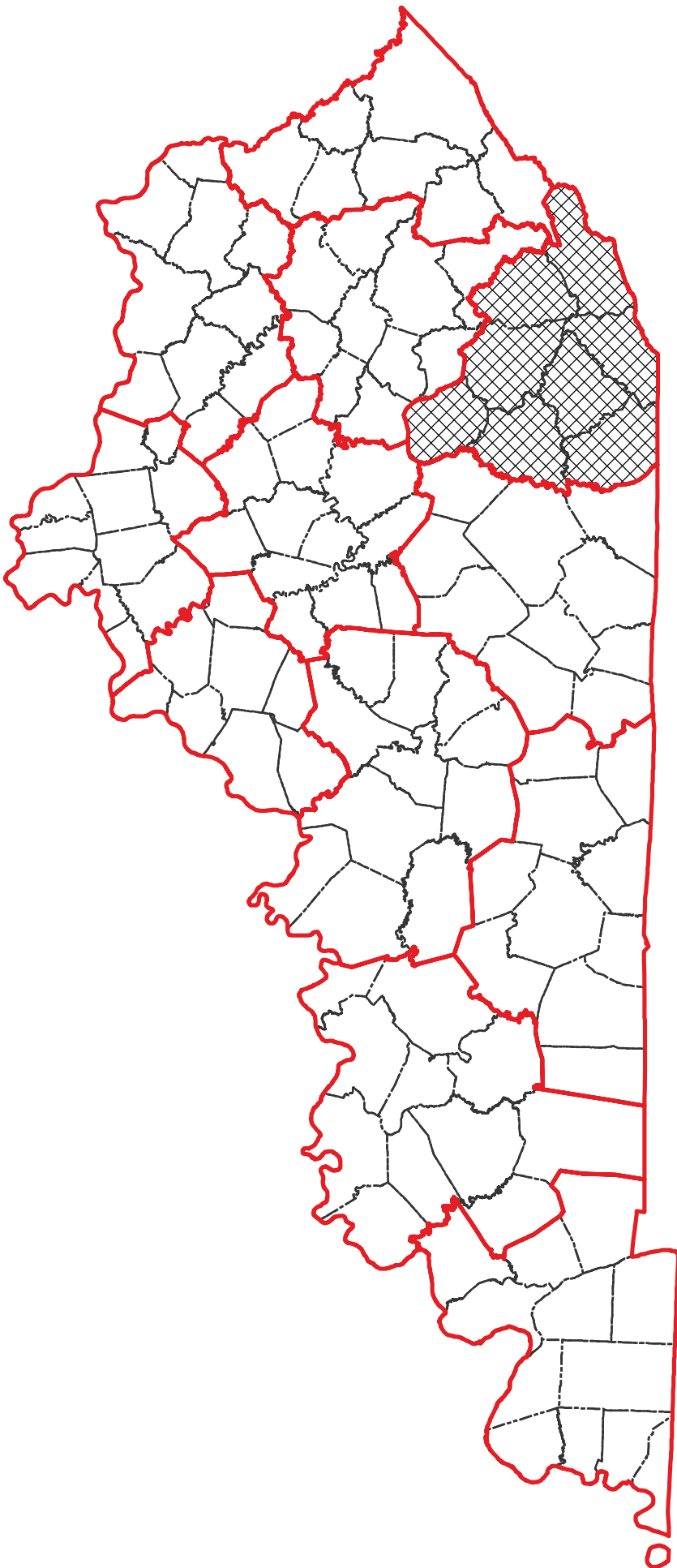
Sections that are required to be re-striped due to failure to meet retroreflectivity requirements must be completed within 15 calendar days after notification by the Engineer. The Department will assess Liquidated Damages in the amount specified in Section 108.09 of the Standard Specifications for each day beyond the 15 calendar days that the restriping is not completed and shall accrue until October 15, 2017. All re-striping must be complete by October 15, 2017. Failure to complete all necessary corrective work by the October 15, 2017 deadline will result in no additional payment for the stripe beyond the 50% that was initially paid for the installation of the stripe and payment will be based upon the Payment Schedule.

All routes that are required to be striped under this contract shall be completed by August 1, 2017. Contrary to the Standard Specifications, no time extension will be granted. Liquidated damages will apply in accordance with **Section 108.09 of the Standard Specifications** for failure to complete the striping by August 1, 2017. Liquidated damages will accrue until October 15, 2017; no striping shall be performed after this date.

Remove all striping errors and spills within five (5) working days after notification by the Engineer. Liquidated damages, in the amount specified in **Section 108.09 of the Standard Specifications**, shall apply for each day beyond the five (5) working days that the Contractor has not begun to correct the striping error/spill or continuously work to complete the corrective work.

The Department will apply all Liquidated Damages accumulatively.

# Highway District 11



Division of Planning



2017 Durable Waterborne Paint Striping - District 11  
6 Inch Lines - Interstate & Parkway Systems

County	Route	Begin	End	Begin Yellow	End Yellow	Yellow Miles	Begin White	End White	White Miles	Comments
Clay	Daniel Boone Pkwy	13.913	14.345	13.913	14.345	0.778				
Clay	Daniel Boone Pkwy	19.527	35.929	19.527	35.929	29.524				
Laurel	Daniel Boone Pkwy	0.000	8.831	0.000	8.831	17.662				
Leslie	Daniel Boone Pkwy	35.929	51.026	35.929	51.026	27.175				
Whitley	I-75	5.552	25.260	5.552	25.260	39.416	5.552	25.260	49.270	
Whitley	I-75 Ramps					3.900			8.200	All Ramps

Interstate & Parkway Grand Total 6 Inch Lines                      118.454                      57.470

NOTES: 1. 6" LINES - DURABLE WATERBORNE PAINT - SECTION 846  
2. SOME ROADS ARE ESTIMATED QUANTITIES ONLY. RETRA  
AS DIRECTED BY THE ENGINEER. THE DEPARTMENT WILL  
MEASURE AND PAY ONLY ACTUAL QUANTITIES RETRACEI

2017 Waterborne Paint Striping - District 11  
4 Inch Lines - MP System

County	Route	Begin	End	Begin Yellow	End Yellow	Yellow Length	Yellow Miles	Begin White	End White	White Length	White Miles	Comments
Bell	US 25E	0.000	18.651	0.000	18.651	18.651	39.167	0.000	18.651	18.651	46.628	
Bell	US 119	0.000	15.880	0.000	15.880	15.880	33.348	0.000	15.880	15.880	34.936	
Bell	KY 66	4.985	18.424	4.985	18.424	13.439	26.878	4.985	18.424	13.439	26.878	
Bell	KY 74	13.700	16.753	13.700	16.753	3.053	5.495	13.700	16.753	3.053	6.106	MP & RS Route
Bell	KY 186	0.000	2.977	0.000	2.977	2.977	5.954					
Bell	KY 441	4.257	4.897	4.257	4.897	0.640	1.152					MP & RS Route
Bell	KY 516	0.000	1.305	0.000	1.305	1.305	2.349					
Bell	KY 987	4.576	13.371	4.576	13.371	8.795	17.590					MP & RS Route
Bell	KY 2395	0.000	0.766	0.000	0.766	0.766	1.532					
Bell	KY 2398	0.000	0.631	0.000	0.631	0.631	1.262					
Bell	KY 3085	0.000	2.025	0.000	2.025	2.025	4.050	0.000	2.025	2.025	4.050	
Bell	KY 3151	0.000	0.524	0.000	0.524	0.524	1.048					
Bell	KY 3492	0.000	0.585	0.000	0.585	0.585	1.170					
Bell	KY 3502	0.000	0.349	0.000	0.349	0.349	0.698					
Total							141.694				118.598	

Clay	US 421	15.727	20.814	15.727	20.814	5.087	9.157	15.727	20.814	5.087	10.174	
Clay	KY 80	5.488	7.537	5.488	7.537	2.049	3.688	5.488	7.537	2.049	4.098	
Clay	KY 472	0.000	8.222	0.000	8.222	8.222	14.800					
Clay	KY 1850	0.000	2.840	0.000	2.840	2.840	5.680					
Clay	KY 2443	0.000	0.374	0.000	0.374	0.374	0.748					
Clay	KY 2467	0.000	3.931	0.000	3.931	3.931	7.862					
Clay	KY 3014	0.000	0.283					0.000	0.283	0.283	0.566	EL Only
Clay	KY 3477	0.000	3.060	0.000	3.060	3.060	6.120					
Clay	KY 3478	0.000	4.200	0.000	4.200	4.200	8.400					
Clay	KY 3560	0.000	1.364	0.000	1.364	1.364	2.728					
Total							59.182				14.838	

Harlan	US 119	0.000	13.213	0.000	13.213	13.213	23.783	0.000	13.213	13.213	29.069	
Harlan	US 119	13.213	39.182	13.213	39.182	25.969	36.357	13.213	39.182	25.969	57.132	
Harlan	US 421	13.453	13.938	13.453	13.938	0.485	0.873	13.453	13.938	0.485	1.019	
Harlan	US 421	13.938	17.851	13.938	17.851	3.913	9.783	13.938	17.851	3.913	10.174	
Harlan	KY 160	0.000	6.694	0.000	6.694	6.694	13.388	0.000	6.694	6.694	13.388	
Harlan	KY 221	18.402	21.560	18.402	21.560	3.158	5.684	18.402	21.560	3.158	6.316	
Harlan	KY 221	21.560	26.767	21.560	26.767	5.207	10.414					
Harlan	KY 1084	0.000	1.571	0.000	1.571	1.571	3.142					
Harlan	KY 2429	0.000	0.454					0.000	0.186	0.186	0.372	EL Only
Harlan	KY 2430	0.000	0.664	0.000	0.664	0.664	1.328					
Harlan	KY 3001	0.000	6.960	0.000	6.960	6.960	13.920	0.000	6.960	6.960	13.920	
Harlan	KY 3099	0.000	1.697					0.000	1.697	1.697	3.394	EL Only
Harlan	KY 3463	0.000	1.641	0.000	0.837	0.837	1.674	0.837	1.641	0.804	1.608	Portion EL Only
Total							120.346				136.391	

Jackson	KY 30	9.121	17.517	9.121	17.517	8.396	15.113	9.121	17.517	8.396	16.792	
Jackson	KY 3443	0.000	2.580	0.000	2.580	2.580	5.160					
Jackson	KY 3630	9.355	12.523	9.355	12.523	3.168	5.702	9.355	12.523	3.168	6.336	
Total							25.975				23.128	

2017 Waterborne Paint Striping - District 11  
4 Inch Lines - MP System

County	Route	Begin	End	Begin Yellow	End Yellow	Yellow Length	Yellow Miles	Begin White	End White	White Length	White Miles	Comments
Knox	US 25E	0.000	26.198	0.000	26.198	26.198	52.396	0.000	26.198	26.198	65.495	
Knox	KY 6	1.105	11.708	1.105	11.708	10.603	19.085					
Knox	KY 11	0.000	3.272	0.000	3.272	3.272	5.890					
Knox	KY 312	0.000	1.313	0.000	1.313	1.313	3.020	0.000	1.313	1.313	2.626	
Knox	KY 1232	0.000	3.650	0.000	3.650	3.650	6.570					
Knox	KY 1418	0.000	2.319	0.000	2.319	2.319	4.638					
Knox	KY 2413	0.000	0.198	0.000	0.198	0.198	0.396					
Knox	KY 2415	0.000	0.240	0.000	0.240	0.240	0.480					
Knox	KY 2418	0.000	0.688	0.000	0.688	0.688	1.376					
Knox	KY 2420	0.000	0.376	0.000	0.376	0.376	0.752					
Knox	KY 2421	0.000	1.125	0.000	1.125	1.125	2.250					
Knox	KY 2423	0.000	0.949	0.000	0.949	0.949	1.898					
Knox	KY 3041	0.000	3.910	0.000	3.910	3.910	7.820	0.000	3.910	3.910	7.820	
Knox	KY 3085	0.000	2.140	0.000	2.140	2.140	4.280	0.000	2.140	2.140	4.280	
Total							110.851				80.221	

Laurel	US 25	0.000	9.028	0.000	9.028	9.028	16.250	0.000	9.028	9.028	19.862	
Laurel	US 25	9.028	13.621	9.028	13.621	4.593	10.564	9.028	13.621	4.593	11.942	
Laurel	US 25	13.621	16.379	13.621	16.379	2.758	4.964	13.621	16.379	2.758	6.068	
Laurel	US 25E	0.000	2.024	0.000	2.024	2.024	4.048	0.000	2.024	2.024	5.060	
Laurel	US 25W	0.000	1.036	0.000	1.036	1.036	2.072	0.000	1.036	1.036	2.072	
Laurel	KY 80	0.000	4.000	0.000	4.000	4.000	7.200	0.000	4.000	4.000	9.200	
Laurel	KY 80	4.000	11.211	4.000	11.211	7.211	14.422	4.000	11.211	7.211	18.028	
Laurel	KY 192	16.746	18.228	16.746	18.228	1.482	2.668	16.746	18.228	1.482	2.964	
Laurel	KY 192	18.228	22.041	18.228	22.041	3.813	8.770	18.228	22.041	3.813	9.533	
Laurel	KY 229	2.315	11.522	2.315	11.522	9.207	16.573	2.315	11.522	9.207	18.414	
Laurel	KY 472	0.000	11.586	0.000	11.586	11.586	20.855	0.000	1.000	1.000	2.000	
Laurel	KY 770	0.000	1.243	0.000	1.243	1.243	2.237	0.000	1.243	1.243	2.486	
Laurel	KY 1193	0.000	3.556	0.000	3.556	3.556	7.112	0.000	3.556	3.556	7.112	
Laurel	KY 1223	0.000	1.139	0.000	1.139	1.139	2.278					MP & RS Route
Laurel	KY 1227	0.000	2.900	0.000	2.900	2.900	5.800					
Laurel	KY 1561	0.000	1.311	0.000	1.311	1.311	2.622					
Laurel	KY 1769	0.000	0.865	0.000	0.865	0.865	1.730					
Laurel	KY 2388	0.000	0.793	0.000	0.793	0.793	1.586					
Laurel	KY 2389	0.000	0.460	0.000	0.460	0.460	0.920					
Laurel	KY 2390	0.000	0.338	0.000	0.338	0.338	0.676					
Laurel	KY 2391	0.000	0.858	0.000	0.858	0.858	1.716					
Laurel	KY 3008	0.000	0.214	0.000	0.214	0.214	0.428					
Laurel	KY 3009	0.000	0.347	0.000	0.347	0.347	0.694					
Laurel	KY 3010	0.000	0.418	0.000	0.418	0.418	0.836					
Laurel	KY 3012	0.000	0.171	0.000	0.171	0.171	0.342					
Laurel	KY 3429	0.000	2.888	0.000	2.888	2.888	5.776					
Laurel	KY 3630	0.000	1.680	0.000	1.680	1.680	3.024	0.000	1.680	1.680	3.360	
Laurel	KY 6259	0.000	0.245	0.000	0.245	0.245	0.490					
Laurel	KY 6260	0.000	0.114	0.000	0.114	0.114	0.228					
Laurel	KY 6264	0.000	0.244	0.000	0.167	0.167	0.334	0.167	0.244	0.077	0.154	Portion EL Only
Laurel	KY 6267	0.000	0.590	0.000	0.590	0.590	1.180					
Total							148.395				118.253	



2017 Waterborne Paint Striping - District 11  
4 Inch Lines - MP System

County	Route	Begin	End	Begin Yellow	End Yellow	Yellow Length	Yellow Miles	Begin White	End White	White Length	White Miles	Comments
Leslie	US 421	20.542	22.513	20.542	22.513	1.971	3.548	20.542	22.513	1.971	3.942	
Leslie	KY 118	0.000	3.524	0.000	3.524	3.524	7.048	0.000	3.524	3.524	8.105	
Leslie	KY 221	0.000	1.753	0.000	1.753	1.753	3.506					
Leslie	KY 1850	0.000	4.940	0.000	4.940	4.940	9.880					
Leslie	KY 2431	0.000	0.135	0.000	0.135	0.135	0.270					
Leslie	KY 3424	0.000	1.193	0.000	1.193	1.193	2.386					MP & RS Route
Leslie	KY 3425	0.000	0.812	0.000	0.812	0.812	1.624					
Leslie	KY 6272	0.000	0.510					0.000	0.510	0.510	1.020	EL Only
Leslie	KY 6274	0.000	0.285					0.000	0.285	0.285	0.570	EL Only
Leslie	KY 6275	0.000	0.322					0.000	0.220	0.220	0.440	EL Only
Leslie	KY 6276	0.000	0.138					0.000	0.138	0.138	0.276	EL Only
Total							28.262				14.353	

Whitley	US 25W	10.923	16.227	10.923	16.227	5.304	8.486	10.923	16.227	5.304	10.608	
Whitley	US 25W	26.892	29.610	26.892	29.610	2.718	4.349	26.892	29.610	2.718	5.436	
Whitley	US 25W	29.610	33.464	29.610	33.464	3.854	6.937	29.610	33.464	3.854	9.635	
Whitley	US 25W	33.464	33.763	33.464	33.763	0.299	0.598	33.464	33.763	0.299	0.598	
Whitley	US 25W	32.427	33.362	32.427	33.362	0.935	1.870	32.427	33.362	0.935	2.104	One Way
Whitley	KY 90 S	0.000	0.318	0.000	0.318	0.318	0.572	0.000	0.318	0.318	0.398	
Whitley	KY 92	0.000	4.606	0.000	4.606	4.606	8.291	0.000	4.606	4.606	9.212	
Whitley	KY 92	4.606	9.396	4.606	9.396	4.790	8.622	4.606	9.396	4.790	10.538	
Whitley	KY 92	9.396	32.998	9.396	32.998	23.602	42.484	9.396	32.998	23.602	47.204	
Whitley	KY 204	11.749	13.099	11.749	13.099	1.350	2.700					MP & RS Route
Whitley	KY 312	2.493	2.632	2.493	2.632	0.139	0.320	2.493	2.632	0.139	0.278	
Whitley	KY 312	2.493	2.525	2.493	2.525	0.032						One Way
Whitley	KY 628	0.000	3.021	0.000	3.021	3.021	6.042					MP & RS Route
Whitley	KY 679	0.000	0.510	0.000	0.521	0.521	1.042					
Whitley	KY 856	0.000	2.047	0.000	2.047	2.047	4.094					
Whitley	KY 895	0.000	3.047	0.000	3.047	3.047	6.094					
Whitley	KY 1193	4.504	7.933	4.504	7.933	3.429	6.858	4.594	7.933	3.339	6.678	
Whitley	KY 1259	2.643	4.192	2.643	4.192	1.549	3.098					
Whitley	KY 1277	0.000	3.316	0.000	3.316	3.316	6.632					
Whitley	KY 1418	0.000	1.524	0.000	1.524	1.524	3.048					
Whitley	KY 1481	0.000	2.663	0.000	2.663	2.663	5.326					
Whitley	KY 2386	0.000	0.800	0.000	0.800	0.800	1.600					
Whitley	KY 2792	0.000	5.243	0.000	5.243	5.243	9.437	0.000	5.243	5.243	10.486	
Whitley	KY 2987	0.000	0.262					0.000	0.262	0.262	0.524	EL Only
Whitley	KY 2994	0.000	0.371					0.000	0.371	0.371	0.742	EL Only
Whitley	KY 3422	0.000	4.157	0.000	4.157	4.157	8.314					
Whitley	KY 3606	0.000	0.028	0.000	0.028	0.028	0.050	0.000	0.028	0.028	0.056	
Total							146.865				114.496	

MP Grand Total 4 Inch Lines

781.569

620.278

NOTES: 1. 4" LINES - WATERBORNE PAINT - SECTION 842  
2. SOME ROADS ARE ESTIMATED QUANTITIES ONLY. RETRACE AS DIRECTED BY THE ENGINEER. THE DEPARTMENT WILL MEASURE AND PAY ONLY ACTUAL QUANTITIES RETRACED

2016 Waterborne Paint Striping - District 11  
4 Inch Lines - RS System

County	Route	Begin	End	Begin Yellow	End Yellow	Yellow Length	Yellow Miles	Begin White	End White	White Length	White Miles	Comments
Bell	KY 74	0.000	11.291	0.000	11.291	11.291	22.582					MP & RS Route
Bell	KY 188	0.000	4.066	0.000	4.066	4.066	7.319					
Bell	KY 217	0.000	8.789	0.000	8.789	8.789	17.578					
Bell	KY 225	0.000	1.378					0.000	1.378	1.378	2.756	EL Only
Bell	KY 441	3.827	4.257	3.827	4.257	0.430	0.774					MP & RS Route
Bell	KY 987	0.000	4.576	0.000	4.576	4.576	9.152					MP & RS Route
Bell	KY 987	13.371	19.355	13.371	19.355	5.984	11.968					MP & RS Route
Bell	KY 988	0.000	1.701	0.000	1.701	1.701	3.402					
Bell	KY 1344	0.000	5.548	0.000	5.548	5.548	11.096					
Bell	KY 1491	0.000	2.332	0.000	2.332	2.332	4.664	0.000	1.766	1.766	3.532	
Bell	KY 1534	0.000	5.840	0.000	5.840	5.840	11.680					
Bell	KY 1595	0.000	1.486	0.000	1.486	1.486	2.972					
Bell	KY 1630	0.000	1.300	0.000	1.054	1.054	2.108	1.054	1.300	0.246	0.492	Portion EL Only
Bell	KY 2011	0.000	9.009	0.000	9.009	9.009	18.018					
Bell	KY 2013	0.000	1.996	0.000	0.050	0.050	0.100	0.050	1.996	1.946	3.892	Portion EL Only
Bell	KY 2014	0.000	4.173	0.000	4.173	4.173	8.346					
Bell	KY 2015	0.000	2.827	0.000	2.827	2.827	5.654					
Bell	KY 2077	0.000	0.800					0.000	0.800	0.800	1.600	EL Only
Bell	KY 2133	0.000	0.814	0.000	0.814	0.814	1.628					
Bell	KY 2394	0.000	0.636	0.000	0.636	0.636	1.272					
Bell	KY 3482	0.000	1.410	0.000	1.410	1.410	2.820					
Bell	KY 3483	0.000	0.800	0.000	0.800	0.800	1.600					
Bell	KY 3484	0.000	3.567	0.000	3.567	3.567	7.134					
Bell	KY 3485	0.000	4.554	0.000	4.554	4.554	9.108					
Total							160.975				12.272	

Clay	KY 484	0.000	1.652	0.000	1.652	1.652	2.974					
Clay	KY 577	0.000	11.903	0.000	11.903	11.903	21.425					
Clay	KY 638	0.000	13.318	0.000	13.318	13.318	23.972					
Clay	KY 687	0.000	14.074	0.000	14.074	14.074	25.333					
Clay	KY 1350	0.000	6.097	0.000	6.097	6.097	12.194					
Clay	KY 1482	0.000	10.255	0.000	10.255	10.255	20.510					
Clay	KY 1524	0.000	16.462	0.000	16.462	16.462	32.924					
Clay	KY 1709	0.000	0.936	0.000	0.936	0.936	1.872					
Clay	KY 2000	0.000	9.092	0.000	5.555	5.555	11.110	5.555	9.092	3.537	7.074	Portion EL Only
Clay	KY 2432	0.000	0.360	0.000	0.360	0.360	0.720					
Clay	KY 3476	0.000	1.440	0.000	1.440	1.440	2.880					
Clay	KY 3481	0.000	0.104	0.000	0.104	0.104	0.208					
Total							156.123				7.074	

2016 Waterborne Paint Striping - District 11  
4 Inch Lines - RS System

County	Route	Begin	End	Begin Yellow	End Yellow	Yellow Length	Yellow Miles	Begin White	End White	White Length	White Miles	Comments
Harlan	KY 72	0.000	2.175	0.000	2.175	2.175	4.350	0.000	2.175	2.175	4.350	
Harlan	KY 72	2.175	4.671	2.175	4.672	2.497	4.994					
Harlan	KY 72	8.617	10.913	8.617	10.913	2.296	4.592	8.617	10.913	2.296	4.592	
Harlan	KY 72	12.229	13.275	12.229	13.275	1.046	2.092	12.229	13.275	1.046	2.092	
Harlan	KY 510	0.000	2.269	0.000	2.269	2.269	4.538					
Harlan	KY 522	0.000	17.665	0.000	17.665	17.665	35.330	0.000	17.665	17.665	35.330	
Harlan	KY 568	0.000	3.268	0.000	3.268	3.268	6.536					
Harlan	KY 840	0.000	5.000	2.811	5.000	2.189	4.378	0.000	2.811	2.811	5.622	Portion EL Only
Harlan	KY 987	0.000	19.422	0.000	19.422	19.422	38.844					
Harlan	KY 990	0.000	1.080	0.000	1.080	1.080	2.160					
Harlan	KY 991	0.000	1.475					0.000	1.475	1.475	2.950	EL Only
Harlan	KY 1138	0.000	1.793	0.000	1.793	1.793	3.586	1.498	1.793	0.295	0.590	
Harlan	KY 1556	0.000	2.052					0.000	2.052	2.052	4.104	EL Only
Harlan	KY 1780	0.000	2.214	2.104	2.214	0.110	0.220	0.000	2.104	2.104	4.208	Portion EL Only
Harlan	KY 1926	0.000	0.468	0.000	0.468	0.468	0.936					
Harlan	KY 2008	0.000	1.396	0.000	1.396	1.396	2.792					
Harlan	KY 2009	0.000	2.726	0.000	2.726	2.726	5.452	0.000	1.450	1.450	2.900	
Harlan	KY 2010	0.000	5.418					0.157	5.418	5.261	10.522	Portion EL Only
Harlan	KY 2074	0.000	0.600					0.000	0.600	0.600	1.200	EL Only
Harlan	KY 2179	0.000	0.721	0.000	0.721	0.721	1.442					
Harlan	KY 3448	0.000	0.593					0.000	0.593	0.593	1.186	EL Only
Harlan	KY 3449	0.000	1.976	0.000	1.976	1.976	3.952	1.020	1.927	0.907	1.814	
Harlan	KY 3450	0.000	0.559					0.000	0.480	0.480	0.960	EL Only
Harlan	KY 3452	0.000	0.898					0.000	0.898	0.898	1.796	EL Only
Harlan	KY 3455	0.000	0.691	0.215	0.691			0.000	0.215	0.215	0.430	Portion EL Only
Harlan	KY 3455	0.691	0.729					0.691	0.729	0.038	0.076	EL Only
Harlan	KY 3457	0.000	0.512					0.000	0.512	0.512	1.024	EL Only
Harlan	KY 3458	0.000	0.774					0.000	0.774	0.774	1.548	EL Only
Harlan	KY 3460	0.000	0.370	0.000	0.370	0.370	0.740					
Harlan	KY 3462	0.000	0.735					0.000	0.735	0.735	1.470	EL Only
Harlan	KY 3464	0.000	0.982					0.000	0.982	0.982	1.964	EL Only
Harlan	KY 3465	0.000	1.670					0.000	1.670	1.670	3.340	EL Only
Harlan	KY 3466	0.000	2.326					0.000	2.326	2.326	4.652	EL Only
Harlan	KY 3467	0.000	0.385					0.000	0.385	0.385	0.770	EL Only
Total							126.934				99.490	

Jackson	KY 577	0.000	11.197	0.000	11.197	11.197	22.394					
Jackson	KY 578	0.000	7.202	0.000	7.202	7.202	14.404					
Jackson	KY 587	0.000	10.263	0.000	10.263	10.263	20.526					
Jackson	KY 1071	0.000	6.712	0.000	6.712	6.712	13.424					
Jackson	KY 1209	0.000	3.891	0.000	3.891	3.891	7.782					
Jackson	KY 1431	0.000	2.951	0.000	2.951	2.951	5.902					
Jackson	KY 1709	0.000	3.980	0.000	3.980	3.980	7.960					
Jackson	KY 1912	0.000	0.120	0.000	0.120	0.120	0.240					
Jackson	KY 1955	0.000	7.691	0.000	7.691	7.691	15.382					
Jackson	KY 2002	0.000	5.300	0.000	5.300	5.300	10.600					
Jackson	KY 2003	0.000	6.578	0.000	6.578	6.578	13.156					
Jackson	KY 3445	0.000	5.170	0.000	5.170	5.170	10.340					
Jackson	KY 3446	0.000	6.081	0.000	6.081	6.081	12.162					
Jackson	KY 3447	0.000	5.080	0.000	5.080	5.080	10.160					
Total							164.432				0.000	

2016 Waterborne Paint Striping - District 11  
4 Inch Lines - RS System

County	Route	Begin	End	Begin Yellow	End Yellow	Yellow Length	Yellow Miles	Begin White	End White	White Length	White Miles	Comments
Knox	KY 223	3.945	16.780	3.945	16.780	12.835	23.103					
Knox	KY 233	0.000	4.633	0.000	4.633	4.633	8.339					
Knox	KY 459	0.000	10.950	0.000	10.950	10.950	19.710					
Knox	KY 718	0.000	10.813	0.000	10.813	10.813	19.463					
Knox	KY 930	0.000	4.063	0.000	4.063	4.063	7.313					
Knox	KY 1304	0.000	6.100	0.000	6.100	6.100	12.200					
Knox	KY 1527	0.000	2.403	0.000	2.403	2.403	4.806					
Knox	KY 1530	0.000	2.603	0.000	2.603	2.603	5.206					
Knox	KY 1803	0.000	5.738	0.000	5.738	5.738	11.476					
Knox	KY 1809	0.000	6.313	0.000	6.313	6.313	12.626					
Knox	KY 2406	0.000	0.095	0.000	0.095	0.095	0.190					
Knox	KY 2408	0.000	0.309	0.000	0.309	0.309	0.618					
Knox	KY 2409	0.000	0.251	0.000	0.251	0.251	0.502					
Knox	KY 2414	0.000	0.183	0.000	0.183	0.183	0.366					
Knox	KY 2417	0.000	1.265	0.000	0.200	0.200	0.400					MP & RS Route
Knox	KY 3153	0.000	0.373	0.000	0.373	0.373	0.746					
Knox	KY 3437	0.000	1.746					0.000	1.746	1.746	3.492	EL Only
Knox	KY 3439	2.970	4.582	2.970	4.582	1.612	3.224					
Knox	KY 3440	0.000	2.579	0.000	2.579	2.579	5.158					
Knox	KY 3442	0.000	2.498	0.000	1.418	1.418	2.836	1.418	2.498	1.080	2.160	Portion EL Only
Total							138.283				5.652	

Laurel	KY 233	0.000	0.668	0.000	0.668	0.668	1.336					
Laurel	KY 488	0.000	2.076	0.000	2.076	2.076	4.152					
Laurel	KY 490	8.161	11.509	8.161	11.509	3.348	6.696					MP & RS Route
Laurel	KY 521	0.000	2.898	0.000	2.898	2.898	5.796					
Laurel	KY 552	0.000	3.087	0.000	3.087	3.087	5.557					
Laurel	KY 578	0.000	10.051	0.000	10.051	10.051	20.102					
Laurel	KY 586	0.000	4.613	0.000	4.613	4.613	9.226					
Laurel	KY 638	0.000	13.187	0.000	13.187	13.187	23.737					
Laurel	KY 687	0.000	0.238	0.000	0.238	0.238	0.428					
Laurel	KY 1023	0.000	2.968	0.000	2.968	2.968	5.342					
Laurel	KY 1035	0.000	2.210	0.000	2.210	2.210	3.978					
Laurel	KY 1223	1.139	8.782	1.139	8.782	7.643	15.286					MP & RS Route
Laurel	KY 1228	0.000	2.876	0.000	2.876	2.876	5.752					
Laurel	KY 1305	0.000	6.514	0.000	6.514	6.514	13.028					
Laurel	KY 1376	0.000	2.852	0.000	2.852	2.852	5.704					
Laurel	KY 1394	0.000	2.634	0.000	2.634	2.634	5.268					
Laurel	KY 1535	0.000	3.798	0.000	3.798	3.798	7.596					
Laurel	KY 1803	0.000	9.245	0.000	9.245	9.245	18.490					
Laurel	KY 1810	0.000	3.246	0.000	3.246	3.246	6.492					
Laurel	KY 1956	0.000	10.970	0.000	10.970	10.970	21.940	0.000	10.970	10.970	21.940	
Laurel	KY 2041	0.000	1.435	0.000	1.435	1.435	2.870					
Laurel	KY 3430	0.000	4.069	0.000	4.069	4.069	8.138					
Laurel	KY 3434	0.000	3.587	0.000	3.587	3.587	7.174					
Laurel	KY 3435	0.000	3.766	0.000	3.766	3.766	7.532					
Laurel	KY 3497	0.000	6.123	0.000	6.123	6.123	12.246					
Laurel	KY 3534	0.000	0.284	0.000	0.284	0.284	0.568					
Total							224.434				21.940	

2016 Waterborne Paint Striping - District 11  
4 Inch Lines - RS System

County	Route	Begin	End	Begin Yellow	End Yellow	Yellow Length	Yellow Miles	Begin White	End White	White Length	White Miles	Comments
Leslie	KY 257	0.000	11.030	0.000	11.030	11.030	22.060					
Leslie	KY 406	0.000	13.476	0.000	13.476	13.476	26.952					
Leslie	KY 1482	0.000	7.460	0.000	7.460	7.460	14.920					
Leslie	KY 1780	0.000	5.166	0.000	1.430	1.430	2.860	1.430	5.166	3.736	7.472	Portion EL Only
Leslie	KY 1780	5.166	14.299	5.166	14.299	9.133	18.266					
Leslie	KY 1807	0.000	3.613	0.000	3.613	3.613	7.226					
Leslie	KY 2008	0.000	2.535	0.000	0.575	0.575	1.150	0.575	2.535	1.960	3.920	Portion EL Only
Leslie	KY 2008	2.535	8.638	2.535	3.070	0.535	1.070	6.845	8.638	1.793	3.586	Portion EL Only
Leslie	KY 2009	0.000	15.302	0.000	15.302	15.302	30.604					
Leslie	KY 2057	0.000	3.115	0.000	2.600	2.600	5.200					
Leslie	KY 2058	0.000	4.841					0.000	4.841	4.841	9.682	EL Only
Leslie	KY 3424	1.193	5.337	1.193	5.337	4.144	8.288					MP & RS Route
Leslie	KY 3426	0.000	1.151					0.000	1.151	1.151	2.302	EL Only
Leslie	KY 3427	0.000	4.516	0.000	3.635	3.635	7.270	3.635	4.516	0.881	1.762	Portion EL Only
Leslie	KY 3427	4.516	11.693	4.516	11.693	7.177	14.354					
Leslie	KY 3428	0.000	1.956					0.000	1.956	1.956	3.912	EL Only
Total							160.220				32.636	

Whitley	KY 478	0.000	7.705	0.000	7.705	7.705	15.410					
Whitley	KY 511	0.000	7.331	0.000	7.331	7.331	14.662					
Whitley	KY 779	0.000	12.694	0.000	12.694	12.694	25.388					
Whitley	KY 904	0.000	10.433	0.000	10.433	10.433	20.866					
Whitley	KY 1064	0.000	17.063	0.000	17.063	17.063	34.126					
Whitley	KY 1595	0.000	4.587	0.000	4.587	4.587	9.174					
Whitley	KY 1673	0.000	1.642	0.000	1.642	1.642	3.284					
Whitley	KY 1809	0.000	1.436	0.000	1.436	1.436	2.872					
Whitley	KY 2995	0.000	0.952	0.000	0.952	0.952	1.904					
Whitley	KY 2996	0.000	4.288	0.000	4.288	4.288	8.576					
Whitley	KY 3423	0.000	4.870	0.000	4.870	4.870	9.740					
Total							146.002				0.000	

NOTES: 1. 4" LINES - WATERBORNE PAINT - SECTION 842  
2. SOME ROADS ARE ESTIMATED QUANTITIES ONLY. RETRACE AS DIRECTED BY THE ENGINEER. THE DEPARTMENT WILL MEASURE AND PAY ONLY ACTUAL QUANTITIES RETRACED.

Contractor & District Information		
DISTRICT	1	CONTRACTOR [Name]
CONTACT		[Mailing Address]
PROJECT TYPE:	Rehabilitation / Resurfacing	[City, ST ZIP CODE]
FUNDING STRIP:		[Phone]
CONTRACT ID:		[Fax]
APPLICATION DATE:	1/12/2011	[E-Mail Address]
APPLICATION TYPE:	Temporary	[Crew Name/No.]
FIRST DAY TO TEST:	2/11/2011	[Driver]
LAST DAY TO TEST:	3/13/2011	[Striping Truck]
SECTION STATUS:	ACCEPT AT 100% PAY	[Comment]

**PART II**

**SPECIFICATIONS AND STANDARD DRAWINGS**

### **SPECIFICATIONS REFERENCE**

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2012* and *Standard Drawings, Edition of 2016*.



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<b>Subsection:</b> <b>Revision:</b>	101.03 DEFINITIONS Add the following Definitions to this section: <b>Superpave Mix Design Technologist (SMDT)</b> - An inspector qualified by the KYTC to submit, adjust, or approve asphalt mix designs.  <b>Superpave Plant Technologist (SPT)</b> - An inspector qualified by the KYTC to perform routine inspection and process control, acceptance, or verification testing on asphalt mixtures.
<b>Subsection:</b> <b>Revision:</b>	102.15 Process Agent. Replace the 1st paragraph with the following: Every corporation doing business with the Department shall submit evidence of compliance with KRS Sections 14A.4-010, 271B.11-010, 271B.11-070, 271B.11-080, 271B.5-010 and 271B.16-220, and file with the Department the name and address of the process agent upon whom process may be served.
<b>Subsection:</b> <b>Revision:</b>	105.13 Claims Resolution Process. Delete all references to TC 63-34 and TC 63-44 from the subsection as these forms are no longer available through the forms library and are forms generated within the AASHTO SiteManager software.
<b>Subsection:</b> <b>Revision:</b>	108.01 Subcontracting of Contract. Replace the section with the following: Do not subcontract, sell, transfer, assign, or otherwise dispose of the Contract or any portion of the Contract or Contracts, or of the right, title, or interest therein, without the Engineer's written consent. If the Contractor chooses to subcontract any portion of the Contract, a written request to sublet work must be submitted on the Subcontract Request (TC 63-35) form for the Engineer's approval. When directed by the Engineer, submit a certified copy of the actual subcontract agreement executed between the parties.  The Engineer will allow the Contractor to subcontract a portion, but the Contractor must perform with his own organization work amounting to no less than 30 percent of the total Contract cost. The Engineer will not allow any subcontractor to exceed the percentage to be performed by the Contractor and will require the Contractor to maintain a supervisory role over the entire project.  Do not allow any subcontractor to further subcontract any portion of the work without obtaining written consent from the Engineer. When the Engineer gives such consent, the first tier subcontractor may further subcontract a portion of his work not to exceed 50 percent of the work originally subcontracted to him by the Contractor. Do not allow any second tier subcontractor to subcontract any portion of the work.  Extra work performed by subcontractors in accordance with Section 109 will not be utilized in the computation of total dollar amount subcontracted. Subcontract percentages are based upon the original contract amount.  Payment to subcontractors for satisfactory performance of their work or materials supplied must be made within 7 calendar days from receipt of payment from the Engineer. Upon request by the Engineer, provide proof that payment has been made to the subcontractor within the 7 calendar days. Progress payments may be withheld for failure to comply with this request

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	<p>The Engineer's written consent to subcontract, assign, or otherwise dispose of any portion of the Contract does not, under any circumstances, relieve the Contractor or the surety of their respective liabilities and obligations under the Contract. The Engineer will make transactions only with the Contractor. The Engineer will recognize subcontractors only in the similar capacity of employees or workers of the Contractor who are subject to the same requirements as to character and competence as specified in Subsection 108.06.</p> <p>Lease agreements are acceptable on Department projects. No additional paperwork is needed when equipment is rented from a commercial rental company unless the leased equipment comes with an operator. In these circumstances, payroll records for the operator of the leased equipment must be maintained and submitted by the contractor in accordance with Department policy.</p> <p>Lease agreements between contractors that involve equipment only will require the submittal of a TC 63-71 Department Equipment Rental Form. If a Contractor is found to be in violation of these requirements, the Engineer reserves the right to withhold payment for the work which was performed in violation of these requirements. This provision does not include the lease or use of equipment from a corporation or company wholly owned by the Contractor. The Contractor shall not use equipment in the performance of the Contract to which title is not held by the Contractor or an approved subcontractor without a submitted lease agreement.</p> <p>If a public official has provided a documented Declaration of Emergency, then the Engineer may verbally waive the requirement of submitting a TC 63-71 Department Equipment Rental Form until the situation has ended. After the emergency situation ends, immediately remove the equipment from the project or submit a completed TC 63-71 Department Equipment Rental Form to the Engineer.</p>
<b>Subsection:</b>	108.03 Preconstruction Conference.
<b>Revision:</b>	<p>Replace 8) Staking with the following:</p> <p>8) Staking (designated by a Professional Engineer or Land Surveyor licensed in the Commonwealth of Kentucky.</p>
<b>Subsection:</b>	109.07.02 Fuel.
<b>Revision:</b>	<p>Revise item Crushed Aggregate Used for Embankment Stabilization to the following:</p> <p style="padding-left: 40px;">Crushed Aggregate Used for Stabilization of Unsuitable Materials Used for Embankment Stabilization</p> <p>Delete the following item from the table.</p> <p><del>Crushed Sandstone Base (Cement Treated)</del></p>
<b>Subsection:</b>	110.02 Demobilization.
<b>Revision:</b>	<p>Replace the first part of the first sentence of the second paragraph with the following:</p> <p>Perform all work and operations necessary to accomplish final clean-up as specified in the first paragraph of Subsection 105.12;</p>
<b>Subsection:</b>	112.03.12 Project Traffic Coordinator (PTC).
<b>Revision:</b>	<p>Replace the last paragraph of this subsection with the following:</p> <p>Ensure the designated PTC has sufficient skill and experience to properly perform the task assigned and has successfully completed the qualification courses.</p>

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<b>Subsection:</b>	112.04.18 Diversions (By-Pass Detours).
<b>Revision:</b>	Insert the following sentence after the 2nd sentence of this subsection. The Department will not measure temporary drainage structures for payment when the contract documents provide the required drainage opening that must be maintained with the diversion. The temporary drainage structures shall be incidental to the construction of the diversion. If the contract documents fail to provide the required drainage opening needed for the diversion, the cost of the temporary drainage structure will be handled as extra work in accordance with section 109.04.
<b>Subsection:</b>	201.03.01 Contractor Staking.
<b>Revision:</b>	Replace the first paragraph with the following: Perform all necessary surveying under the general supervision of a Professional Engineer or Land Surveyor licensed in the Commonwealth of Kentucky.
<b>Subsection:</b>	201.04.01 Contractor Staking.
<b>Revision:</b>	Replace the last sentence of the paragraph with the following: Complete the general layout of the project under the supervision of a Professional Engineer or Land Surveyor licensed in the Commonwealth of Kentucky.
<b>Subsection:</b>	206.04.01 Embankment-in-Place.
<b>Revision:</b>	Replace the fourth paragraph with the following: The Department will not measure <b>suitable</b> excavation included in the original plans that is disposed of for payment and will consider it incidental to Embankment-in-Place.
<b>Subsection:</b>	208.02.01 Cement.
<b>Revision:</b>	Replace paragraph with the following: Select Type I or Type II cement conforming to Section 801. Use the same type cement throughout the work.
<b>Subsection:</b>	208.03.06 Curing and Protection.
<b>Revision:</b>	Replace the fourth paragraph with the following: Do not allow traffic or equipment on the finished surface until the stabilized subgrade has cured for a total of 7-days with an ambient air temperature above 40 degrees Fahrenheit. A curing day consists of a continuous 24-hour period in which the ambient air temperature does not fall below 40 degrees Fahrenheit. Curing days will not be calculated consecutively, but must total seven (7) , 24-hour days with the ambient air temperature remaining at or above 40 degrees Fahrenheit before traffic or equipment will be allowed to traverse the stabilized subgrade. The Department may allow a shortened curing period when the Contractor requests. The Contractor shall give the Department at least 3 day notice of the request for a shortened curing period. The Department will require a minimum of 3 curing days after final compaction. The Contractor shall furnish cores to the treated depth of the roadbed at 500 feet intervals for each lane when a shortened curing time is requested. The Department will test cores using an unconfined compression test. Roadbed cores must achieve a minimum strength requirement of 80 psi.
<b>Subsection:</b>	208.03.06 Curing and Protection.
<b>Revision:</b>	Replace paragraph eight with the following: At no expense to the Department, repair any damage to the subgrade caused by freezing.

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<b>Subsection:</b>	212.03.03 Permanent Seeding and Protection.
<b>Part:</b>	A) Seed Mixtures for Permanent Seeding.
<b>Revision:</b>	Revise <b>Seed Mix Type I</b> to the mixture shown below: 50% Kentucky 31 Tall Fescue ( <i>Festuca arundinacea</i> ) 35% Hard Fescue ( <i>Festuca (Festuca longifolia)</i> ) 10% Ryegrass, Perennial ( <i>Lolium perenne</i> ) 5% White Dutch Clover ( <i>Trifolium repens</i> )
<b>Subsection:</b>	212.03.03 Permanent Seeding and Protection.
<b>Part:</b>	A) Seed Mixtures for Permanent Seeding.
<b>Number:</b>	2)
<b>Revision:</b>	Replace the paragraph with the following: Permanent Seeding on Slopes Greater than 3:1 in Highway Districts 4, 5, 6, and 7. Apply seed mix Type II at a minimum application rate of 100 pounds per acre. If adjacent to a golf course replace the crown vetch with Kentucky 31 Tall Fescue.
<b>Subsection:</b>	212.03.03 Permanent Seeding and Protection.
<b>Part:</b>	A) Seed Mixtures for Permanent Seeding.
<b>Number:</b>	3)
<b>Revision:</b>	Replace the paragraph with the following: Permanent Seeding on Slopes Greater than 3:1 in Highway Districts 1, 2, 3, 8, 9, 10, 11, and 12. Apply seed mix Type III at a minimum application rate of 100 pounds per acre. If adjacent to crop land or golf course, replace the Sericea Lespedeza with Kentucky 31 Fescue.
<b>Subsection:</b>	212.03.03 Permanent Seeding and Protection.
<b>Part:</b>	B) Procedures for Permanent Seeding.
<b>Revision:</b>	Delete the first sentence of the section.
<b>Subsection:</b>	212.03.03 Permanent Seeding and Protection.
<b>Part:</b>	B) Procedures for Permanent Seeding.
<b>Revision:</b>	Replace the second and third sentence of the section with the following: Prepare a seedbed and apply an initial fertilizer that contains a minimum of 100 pounds of nitrogen, 100 pounds of phosphate, and 100 pounds of potash per acre. Apply agricultural limestone to the seedbed when the Engineer determines it is needed. When required, place agricultural limestone at a rate of 3 tons per acre.
<b>Subsection:</b>	212.03.03 Permanent Seeding and Protection.
<b>Part:</b>	D) Top Dressing.
<b>Revision:</b>	Change the title of part to D) Fertilizer.
<b>Subsection:</b>	212.03.03 Permanent Seeding and Protection.
<b>Part:</b>	D) Fertilizer.
<b>Revision:</b>	Replace the first paragraph with the following: Apply fertilizer at the beginning of the seeding operation and after vegetation is established. Use fertilizer delivered to the project in bags or bulk. Apply initial fertilizer to all areas prior to the seeding or sodding operation at the application rate specified in 212.03.03 B). Apply 20-10-10 fertilizer to the areas after vegetation has been established at a rate of 11.5 pounds per 1,000 square feet. Obtain approval from the Engineer prior to the 2nd fertilizer application. Reapply fertilizer to any area that has a streaked appearance. The reapplication shall be at no additional cost to the Department. Re-establish any vegetation severely damaged or destroyed because of an excessive application of fertilizer at no cost to the Department.
<b>Subsection:</b>	212.03.03 Permanent Seeding and Protection.
<b>Part:</b>	D) Fertilizer.
<b>Revision:</b>	Delete the second paragraph.

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<b>Subsection:</b>	212.04.04 Agricultural Limestone.		
<b>Revision:</b>	Replace the entire section with the following: The Department will measure the quantity of agricultural limestone in tons.		
<b>Subsection:</b>	212.04.05 Fertilizer.		
<b>Revision:</b>	Replace the entire section with the following: The Department will measure fertilizer used in the seeding or sodding operations for payment. The Department will measure the quantity by tons.		
<b>Subsection:</b>	212.05 PAYMENT.		
<b>Revision:</b>	Delete the following item code:		
	<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
	05966	Topdressing Fertilizer	Ton
<b>Subsection:</b>	212.05 PAYMENT.		
<b>Revision:</b>	Add the following pay items:		
	<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
	05963	Initial Fertilizer	Ton
	05964	20-10-10 Fertilizer	Ton
	05992	Agricultural Limestone	Ton
<b>Subsection:</b>	213.03.02 Progress Requirements.		
<b>Revision:</b>	Replace the third paragraph with the following: After exposing areas of erodible material, make every effort to stabilize and protect the areas as quickly as possible. Permanently seed and mulch all areas at final grade within 14 days. Temporary stabilization practices on those portions of the project where construction activities have temporarily ceased shall be initiated within 14 days of the date of activity cessation. The Engineer will suspend grading operations for instances where the Contractor fails to sustain erosion control measures to effectively control erosion and to prevent water pollution in accordance with the KPDES Permit. In addition, the Engineer will withhold monies due on current estimates until corrective work has been initiated and is continuously progressing to remediate noted deficiencies. Additionally, should noted deficiencies not be adequately addressed to the satisfaction of the Engineer within 7 calendar days of receipt of written notification of deficiencies, the Department will apply a penalty equal to the daily liquidated damages rate until all aspects of the work have been completed.		
<b>Subsection:</b>	213.03.05 Temporary Control Measures.		
<b>Part:</b>	E) Temporary Seeding and Protection.		
<b>Revision:</b>	Delete the second sentence of the first paragraph.		
<b>Subsection:</b>	304.02.01 Physical Properties.		
<b>Table:</b>	Required Geogrid Properties		
<b>Revision:</b>	Replace all references to Test Method "GRI-GG2-87" with ASTM D 7737.		
<b>Subsection:</b>	402.03.02 Contractor Quality Control and Department Acceptance.		
<b>Part:</b>	B) Sampling.		
<b>Revision:</b>	Replace the second sentence with the following: The Department will determine when to obtain the quality control samples using the random-number feature of the mix design submittal and approval spreadsheet. The Department will randomly determine when to obtain the verification samples required in Subsections 402.03.03 and 402.03.04 using the Asphalt Mixture Sample Random Tonnage Generator.		

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<b>Subsection:</b>	402.03.02 Contractor Quality Control and Department Acceptance.
<b>Part:</b>	D) Testing Responsibilities.
<b>Number:</b>	3) VMA.
<b>Revision:</b>	Add the following paragraph below Number 3) VMA: Retain the AV/VMA specimens and one additional corresponding $G_{mm}$ sample for 5 working days for mixture verification testing by the Department. For Specialty Mixtures, retain a mixture sample for 5 working days for mixture verification testing by the Department. When the Department's test results do not verify that the Contractor's quality control test results are within the acceptable tolerances according to Subsection 402.03.03, retain the samples and specimens from the affected subplot(s) for the duration of the project.
<b>Subsection:</b>	402.03.02 Contractor Quality Control and Department Acceptance.
<b>Part:</b>	D) Testing Responsibilities.
<b>Number:</b>	4) Density.
<b>Revision:</b>	Replace the second sentence of the Option A paragraph with the following: Perform coring by the end of the following work day.
<b>Subsection:</b>	402.03.02 Contractor Quality Control and Department Acceptance.
<b>Part:</b>	D) Testing Responsibilities.
<b>Number:</b>	5) Gradation.
<b>Revision:</b>	Delete the second paragraph.
<b>Subsection:</b>	402.03.02 Contractor Quality Control and Department Acceptance.
<b>Part:</b>	H) Unsatisfactory Work.
<b>Number:</b>	1) Based on Lab Data.
<b>Revision:</b>	Replace the second paragraph with the following: When the Engineer determines that safety concerns or other considerations prohibit an immediate shutdown, continue work and the Department will make an evaluation of acceptability according to Subsection 402.03.05.
<b>Subsection:</b>	402.03.03 Verification.
<b>Revision:</b>	Replace the first paragraph with the following: <b>402.03.03 Mixture Verification.</b> For volumetric properties, the Department will perform a minimum of one verification test for AC, AV, and VMA according to the corresponding procedures as given in Subsection 402.03.02. The Department will randomly determine when to obtain the verification sample using the Asphalt Mixture Sample Random Tonnage Generator. For specialty mixtures, the Department will perform one AC and one gradation determination per lot according to the corresponding procedures as given in Subsection 402.03.02. However, Department personnel will not perform AC determinations according to KM 64-405. The Contractor will obtain a quality control sample at the same time the Department obtains the mixture verification sample and perform testing according to the procedures given in Subsection 402.03.02. If the Contractor's quality control sample is verified by the Department's test results within the tolerances provided below, the Contractor's sample will serve as the quality control sample for the affected subplot. The Department may perform the mixture verification test on the Contractor's equipment or on the Department's equipment.
<b>Subsection:</b>	402.03.03 Verification.
<b>Part:</b>	A) Evaluation of Subplot(s) Verified by Department.
<b>Revision:</b>	Replace the third sentence of the second paragraph with the following: When the paired $t$ -test indicates that the Contractor's data and Department's data are possibly not from the same population, the Department will investigate the cause for the difference according to Subsection 402.03.05 and implement corrective measures as the Engineer deems appropriate.

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<b>Subsection:</b>	402.03.03 Verification.
<b>Part:</b>	B) Evaluation of Sublots Not Verified by Department.
<b>Revision:</b>	Replace the third sentence of the first paragraph with the following: When differences between test results are not within the tolerances listed below, the Department will resolve the discrepancy according to Subsection 402.03.05.
<b>Subsection:</b>	402.03.03 Verification.
<b>Part:</b>	B) Evaluation of Sublots Not Verified by Department.
<b>Revision:</b>	Replace the third sentence of the second paragraph with the following: When the <i>F</i> -test or <i>t</i> -test indicates that the Contractor's data and Department's data are possibly not from the same population, the Department will investigate the cause for the difference according to Subsection 402.03.05 and implement corrective measures as the Engineer deems appropriate.
<b>Subsection:</b>	402.03.03 Verification.
<b>Part:</b>	C) Test Data Patterns.
<b>Revision:</b>	Replace the second sentence with the following: When patterns indicate substantial differences between the verified and non-verified sublots, the Department will perform further comparative testing according to subsection 402.03.05.
<b>Subsection:</b>	402.03 CONSTRUCTION.
<b>Revision:</b>	Add the following subsection: <b>402.03.04 Testing Equipment and Technician Verification.</b> For mixtures with a minimum quantity of 20,000 tons and for every 20,000 tons thereafter, the Department will obtain an additional verification sample at random using the Asphalt Mixture Sample Random Tonnage Generator in order to verify the integrity of the Contractor's and Department's laboratory testing equipment and technicians. The Department will obtain a mixture sample of at least 150 lb at the asphalt mixing plant according to KM 64-425 and split it according to AASHTO R 47. The Department will retain one split portion of the sample and provide the other portion to the Contractor. At a later time convenient to both parties, the Department and Contractor will simultaneously reheat the sample to the specified compaction temperature and test the mixture for AV and VMA using separate laboratory equipment according to the corresponding procedures given in Subsection 402.03.02. The Department will evaluate the differences in test results between the two laboratories. When the difference between the results for AV or VMA is not within $\pm 2.0$ percent, the Department will investigate and resolve the discrepancy according to Subsection 402.03.05.
<b>Subsection:</b>	402.03.04 Dispute Resolution.
<b>Revision:</b>	Change the subsection number to 402.03.05.
<b>Subsection:</b>	402.05 PAYMENT.
<b>Part:</b>	Lot Pay Adjustment Schedule Compaction Option A Base and Binder Mixtures
<b>Table:</b>	AC
<b>Revision:</b>	Replace the Deviation from JMF(%) that corresponds to a Pay Value of 0.95 to $\pm 0.6$ .
<b>Subsection:</b>	403.01 Description.
<b>Revision:</b>	Replace the sentence three and four of the first paragraph with the following: Provide a Superpave Plant Technologist (SPT) or Superpave Mix Design Technician (SMDT) qualified by the Laboratories' Quality Acceptance program. Be available to address all Quality Control concerns arising during work performed under section 403.
<b>Subsection:</b>	403.02.10 Material Transfer Vehicle (MTV).
<b>Revision:</b>	Replace the first sentence with the following: In addition to the equipment specified above, provide a MTV with the following minimum characteristics:

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<b>Subsection:</b>	403.03.03 Preparation of Mixture
<b>Part:</b>	C) Mix Design Criteria
<b>Number:</b>	2)
<b>Revision:</b>	Revise part 2) to read as follows: Selection of Optimum AC. Normally, the Department will approve the AC at an air-void content of 4.0 percent. The Engineer may assign an AC corresponding to other air-void levels as deemed appropriate. Ensure the optimum AC is a minimum of 5.2 percent by weight of the total mixture for all 0.5-inch nominal surface mixtures and 5.5 percent by weight of the total mixture for all 0.38-inch nominal surface mixtures.
<b>Subsection:</b>	412.02.09 Material Transfer Vehicle (MTV).
<b>Revision:</b>	Replace the paragraph with the following: Provide and utilize a MTV with the minimum characteristics outlined in section 403.02.10.
<b>Subsection:</b>	412.03.07 Placement and Compaction.
<b>Revision:</b>	Replace the first paragraph with the following: Use a MTV when placing SMA mixture in the driving lanes. The MTV is not required on ramps and/or shoulders unless specified in the contract. When the Engineer determines the use of the MTV is not practical for a portion of the project, the Engineer may waive its requirement for that portion of pavement by a letter documenting the waiver.
<b>Subsection:</b>	412.04 MEASUREMENT.
<b>Revision:</b>	Add the following subsection: 412.04.03. Material Transfer Vehicle (MTV). The Department will not measure the MTV for payment and will consider its use incidental to the asphalt mixture.
<b>Subsection:</b>	501.03.19 Surface Tolerances and Testing Surface.
<b>Part:</b>	B) Ride Quality.
<b>Revision:</b>	Add the following to the end of the first paragraph: The Department will specify if the ride quality requirements are Category A or Category B when ride quality is specified in the Contract. Category B ride quality requirements shall apply when the Department fails to classify which ride quality requirement will apply to the Contract.
<b>Subsection:</b>	501.03.05 Weather Limitations and Protection.
<b>Revision:</b>	Replace the reference to Subsection 501.03.19 in Paragraph 5, with Subsection 501.03.20.
<b>Subsection:</b>	601.02.02 Cement
<b>Revision:</b>	Replace the third sentence with the following: The Department will allow the use of Type IP( $\leq 20$ ), Type IS( $\leq 30$ ), Type IL, Type II, and Type III when the Engineer approves.
<b>Subsection:</b>	601.02.02 Cement
<b>Revision:</b>	Replace the fifth sentence with the following: If unsatisfactory test results are obtained using Type IP( $\leq 20$ ), Type IS( $\leq 30$ ), Type IL, Type II, or Type III cement complete the work using Type I cement.



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<b>Subsection:</b>	601.03.02 Concrete Producer Responsibilities.																																																																																															
<b>Part:</b>	E) Trip Tickets.																																																																																															
<b>Revision:</b>	Replace the section with the following: Furnish a trip ticket containing the minimum information shown in the table below. Certify that the data on the ticket is correct and that the mixture conforms to the approved mix design. Ensure that the plant manager or a Level II concrete technician signs the ticket. The Department's jobsite inspector will complete all other necessary information on the back of the trip ticket.																																																																																															
	<table><tr><td>Contract Id:</td><td>Proj. Number:</td><td>Date:</td><td>County:</td><td></td></tr><tr><td>Truck No:</td><td>Producer Name:</td><td colspan="3">SiteManager Sample Id:</td></tr><tr><td>Qty(Yds<sup>3</sup>):</td><td colspan="2">Time Loaded (Non Agitated Concrete Only):</td><td colspan="2"></td></tr><tr><td colspan="5">Begin Mixing Time: _____ AM _____ PM _____ REV _____</td></tr><tr><td colspan="2">Set Retarder Used</td><td>Yes ____</td><td>Type ____</td><td>No ____</td></tr><tr><td colspan="2">Water Reducer Used</td><td>Yes ____</td><td>Type ____</td><td>No ____</td></tr><tr><td colspan="2">Water Underrun _____ Gal/Yd<sup>3</sup></td><td colspan="3">Total Gallons _____</td></tr><tr><td>Design W/C:</td><td>Actual W/C:</td><td colspan="2">Slump (inches)</td><td></td></tr><tr><td colspan="5"><b>Batch Weight Information:</b></td></tr><tr><td>Material:</td><td>Description:</td><td>Design Qty:</td><td>Required:</td><td>Batched:</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="5">Remarks:</td></tr><tr><td colspan="5"></td></tr><tr><td colspan="5"></td></tr><tr><td colspan="5">*The data on this ticket is correct for the approved concrete mix design.*</td></tr><tr><td colspan="5"></td></tr><tr><td colspan="2">Signature: _____</td><td colspan="3">Date: _____</td></tr><tr><td colspan="5">KRMCA Level II Technician or Plant Manager</td></tr></table>	Contract Id:	Proj. Number:	Date:	County:		Truck No:	Producer Name:	SiteManager Sample Id:			Qty(Yds <sup>3</sup> ):	Time Loaded (Non Agitated Concrete Only):				Begin Mixing Time: _____ AM _____ PM _____ REV _____					Set Retarder Used		Yes ____	Type ____	No ____	Water Reducer Used		Yes ____	Type ____	No ____	Water Underrun _____ Gal/Yd <sup>3</sup>		Total Gallons _____			Design W/C:	Actual W/C:	Slump (inches)			<b>Batch Weight Information:</b>					Material:	Description:	Design Qty:	Required:	Batched:											Remarks:															*The data on this ticket is correct for the approved concrete mix design.*										Signature: _____		Date: _____			KRMCA Level II Technician or Plant Manager				
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<b>Part:</b>	A) Concrete																																																																																															
<b>Revision:</b>	Revise Table for INGREDIENT PROPORTIONS AND REQUIREMENTS FOR VARIOUS CLASSES OF CONCRETE as follows: Replace "M1 w/ Type 1 cement" with "M1 w/ Type 1 or blended hydraulic cement"																																																																																															
<b>Subsection:</b>	601.03.03 Proportioning and Requirements																																																																																															
<b>Part:</b>	C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures																																																																																															
<b>Revision:</b>	Revise part C) header to read as follows: Mixtures Using Type IP(≤20), IS(≤30), and IL Cement and Mineral Admixtures.																																																																																															
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<b>Revision:</b>	Revise first sentence to read as follows: Type IP(≤20), IS(≤30), IL Cement.																																																																																															
<b>Subsection:</b>	601.03.03 Proportioning and Requirements																																																																																															
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<b>Number:</b>	2)																																																																																															
<b>Revision:</b>	Revise second sentence to read as follows: The use of fly ash, blast furnace slag cement, or microsilica in concrete is the Contractor's option.																																																																																															

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<b>Subsection:</b>	601.03.03 Proportioning and Requirements
<b>Part:</b>	C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures
<b>Number:</b>	2)
<b>Revision:</b>	Revise the first sentence in the second paragraph to read as follows: When the ability to use blast furnace slag cement or microsilica has not been demonstrated have the concrete producer provide trial batches in accordance with Subsection 601.03.02 G) 1).
<b>Subsection:</b>	601.03.03 Proportioning and Requirements
<b>Part:</b>	C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures
<b>Number:</b>	2)
<b>Part:</b>	b)
<b>Revision:</b>	Revise first sentence to read as follows: Blast Furnace Slag Cement
<b>Subsection:</b>	601.03.03 Proportioning and Requirements
<b>Part:</b>	C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures
<b>Number:</b>	2)
<b>Part:</b>	b)
<b>Revision:</b>	Revise second sentence to read as follows: When added as a separate ingredient, use Grade 120 or Grade 100 slag to reduce the quantity of cement, except do not use blast furnace slag cement to reduce the quantity of Type IS( $\leq 30$ ) cement.
<b>Subsection:</b>	601.03.03 Proportioning and Requirements
<b>Part:</b>	C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures
<b>Number:</b>	2)
<b>Part:</b>	b)
<b>Revision:</b>	In part b), replace all references to "GGBF slag" with "blast furnace slag cement".
<b>Subsection:</b>	601.03.04 Classes and Primary Uses
<b>Part:</b>	H) Class M1
<b>Revision:</b>	Revise part H) to read as follows: High early strength for bridge joint repair and full or partial depth bridge deck patching. (Type 1 cement or blended hydraulic cement)
<b>Subsection:</b>	603.03.06 Cofferdams.
<b>Revision:</b>	Replace the seventh sentence of paragraph one with the following: Submit drawings that are stamped by a Professional Engineer licensed in the Commonwealth of Kentucky.
<b>Subsection:</b>	605.03.04 Tack Welding.
<b>Revision:</b>	Insert the subsection and the following: 605.03.04 Tack Welding. The Department does not allow tack welding.
<b>Subsection:</b>	606.03.17 Special Requirements for Latex Concrete Overlays.
<b>Part:</b>	A) Existing Bridges and New Structures.
<b>Number:</b>	1) Prewetting and Grout-Bond Coat.
<b>Revision:</b>	Add the following sentence to the last paragraph: Do not apply a grout-bond coat on bridge decks prepared by hydrodemolition.
<b>Subsection:</b>	609.03 Construction.
<b>Revision:</b>	Replace Subsection 609.03.01 with the following: 609.03.01 A) Swinging the Spans. Before placing concrete slabs on steel spans or precast concrete release the temporary erection supports under the bridge and swing the span free on its supports. 609.03.01 B) Lift Loops. Cut all lift loops flush with the top of the precast beam once the beam is placed in the final location and prior to placing steel reinforcement. At locations where lift loops are cut, paint the top of the beam with galvanized or epoxy paint.

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<b>Subsection:</b>	611.03.02 Precast Unit Construction.
<b>Revision:</b>	Replace the first sentence of the subsection with the following: Construct units according to ASTM C1577, <b>replacing Table 1 (Design Requirements for Precast Concrete Box Sections Under Earth, Dead and HL-93 Live Load Conditions) with KY Table 1 (Precast Culvert KYHL-93 Design Table)</b> , and Section 605 with the following exceptions and additions:
<b>Subsection:</b>	613.03.01 Design.
<b>Number:</b>	2)
<b>Revision:</b>	Replace "AASHTO Standard Specifications for Highway Bridges" with "AASHTO LRFD Bridge Design Specifications"
<b>Subsection:</b>	615.06.02
<b>Revision:</b>	Add the following sentence to the end of the subsection. The ends of units shall be normal to walls and centerline except exposed edges shall be beveled $\frac{3}{4}$ inch.
<b>Subsection:</b>	615.06.03 Placement of Reinforcement in Precast 3-Sided Units.
<b>Revision:</b>	Replace the reference of 6.6 in the section to 615.06.06.
<b>Subsection:</b>	615.06.04 Placement of Reinforcement for Precast Endwalls.
<b>Revision:</b>	Replace the reference of 6.7 in the section to 615.06.07.
<b>Subsection:</b>	615.06.06 Laps, Welds, and Spacing for Precast 3-Sided Units.
<b>Revision:</b>	Replace the subsection with the following: Tension splices in the circumferential reinforcement shall be made by lapping. Laps may not be tack welded together for assembly purposes. For smooth welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.2 and AASHTO 2012 Bridge Design Guide Section 5.11.6.3. For deformed welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.1 and AASHTO 2012 Bridge Design Guide Section 5.11.6.2. The overlap of welded wire fabric shall be measured between the outer most longitudinal wires of each fabric sheet. For deformed billet-steel bars, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.1. For splices other than tension splices, the overlap shall be a minimum of 12" for welded wire fabric or deformed billet-steel bars. The spacing center to center of the circumferential wires in a wire fabric sheet shall be no less than 2 inches and no more than 4 inches. The spacing center to center of the longitudinal wires shall not be more than 8 inches. The spacing center to center of the longitudinal distribution steel for either line of reinforcing in the top slab shall be not more than 16 inches.
<b>Subsection:</b>	615.06.07 Laps, Welds, and Spacing for Precast Endwalls.
<b>Revision:</b>	Replace the subsection with the following: Splices in the reinforcement shall be made by lapping. Laps may not be tack welded together for assembly purposes. For smooth welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.2 and AASHTO 2012 Bridge Design Guide Section 5.11.6.3. For deformed welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.1 and AASHTO 2012 Bridge Design Guide Section 5.11.6.2. For deformed billet-steel bars, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.1. The spacing center-to-center of the wire fabric sheet shall not be less than 2 inches or more than 8 inches.

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<b>Subsection:</b>	615.08.01 Type of Test Specimen.
<b>Revision:</b>	Replace the subsection with the following: Start-up slump, air content, unit weight, and temperature tests will be performed each day on the first batch of concrete. Acceptable start-up results are required for production of the first unit. After the first unit has been established, random acceptance testing is performed daily for each 50 yd <sup>3</sup> (or fraction thereof). In addition to the slump, air content, unit weight, and temperature tests, a minimum of one set of cylinders shall be required each time plastic property testing is performed.
<b>Subsection:</b>	615.08.02 Compression Testing.
<b>Revision:</b>	Delete the second sentence.
<b>Subsection:</b>	615.08.04 Acceptability of Core Tests.
<b>Revision:</b>	Delete the entire subsection.
<b>Subsection:</b>	615.12 Inspection.
<b>Revision:</b>	Add the following sentences to the end of the subsection: Units will arrive at jobsite with the "Kentucky Oval" stamped on the unit which is an indication of acceptable inspection at the production facility. Units shall be inspected upon arrival for any evidence of damage resulting from transport to the jobsite.
<b>Subsection:</b>	701.04.16 Deduction for Pipe Deflection.
<b>Revision:</b>	Insert the following at the end of the paragraph: The section length is determined by the length of the pipe between joints where the failure occurred.
<b>Subsection:</b>	716.02.02 Paint.
<b>Revision:</b>	Replace sentence with the following: Conform to Section 821.
<b>Subsection:</b>	716.03 CONSTRUCTION.
<b>Revision:</b>	Replace bullet 5) with the following: 5) AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims,
<b>Subsection:</b>	716.03.02 Lighting Standard Installation.
<b>Revision:</b>	Replace the paragraph with the following: Locate poles to avoid trees, drainage, structures, etc. Regardless of the station & offset noted, locate all poles/bases behind guardrail a minimum of 4 feet behind the face of the guardrail. All poles shall be placed as close to stations and offsets as stated on Plans to provide proper illumination. If any pole needs to be relocated from stations indicated, the Division of Traffic Operations shall be contacted. When submitting brochures for suggested luminaires include iso lux curves, IES type distribution, lamp lumens, and typical ballast factor used for each type of luminaire. Submit the photometric data in a digital IES format to the Division of Traffic Operations. Include with the submittal a point of contact and phone number to answer technical questions about the luminaire.
<b>Subsection:</b>	716.03.02 Lighting Standard Installation.
<b>Part:</b>	A) Conventional Installation.
<b>Revision:</b>	Replace the third sentence with the following: Orient the transformer base so the door is positioned on the side away from on-coming traffic.
<b>Subsection:</b>	716.03.02 Lighting Standard Installation.
<b>Part:</b>	A) Conventional Installation.
<b>Number:</b>	1) Breakaway Installation and Requirements.
<b>Revision:</b>	Replace the first sentence with the following: For breakaway supports, conform to Section 12 of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.

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<b>Subsection:</b>	716.03.02 Lighting Standard Installation.
<b>Part:</b>	B) High Mast Installation
<b>Revision:</b>	Replace the first three sentences of the first paragraph with the following: Install each high mast pole as noted on Plans. Install each high mast pole on a separate circuit and use luminaires with light patterns as indicated. Orient luminaires as shown in Plans.

Subsection:

716.03.02 Lighting Standard Installation.

Part:

B) High Mast Installation

Number:

2) Concrete Base Installation

Revision:

Modification of Chart and succeeding paragraphs within this section:

Drilled Shaft Depth Data							
Level Ground		3:1 Ground Slope		2:1 Ground Slope		1.5:1 Ground Slope <sup>(2)</sup>	
Soil	Rock	Soil	Rock	Soil	Rock	Soil	Rock
17 ft	7 ft	19 ft	7 ft	20 ft	7 ft	(1)	7 ft

Steel Requirements			
Vertical Bars		Ties or Spiral	
Size	Total	Size	Spacing or Pitch
#10	16	#4	12 inch

Note 1: Shaft length is 22 feet for cohesive soil only. For cohesionless soil, contact Geotechnical Branch for design.

Note 2: Do not construct high mast drilled shafts on ground slopes steeper than 1.5:1 without the approval of the Division of Traffic Operations.

If rock is encountered during drilling operations and confirmed by the Engineer to be of sound quality, the shaft is only required to be further advanced into the rock by the length of rock socket shown in the design table. The total length of the shaft need not be longer than that of soil alone. Both longitudinal rebar length and number of ties or spiral length shall be adjusted

If a shorter depth is desired for the drilled shaft, the Contractor shall provide, for the state's review and approval, a detailed column design with individual site specific soil and rock analysis performed and approved by a Professional Engineer licensed in the Commonwealth of Kentucky.

Spiral reinforcement may be substituted for ties. If spiral reinforcement is used, one and one-half closed coils shall be provided at the ends of each spiral unit. Subsurface conditions consisting of very soft clay or very loose saturated sand could result in soil parameters weaker than those assumed. Engineer shall consult with the Geotechnical Branch if such conditions

The bottom of the drilled hole shall be firm and thoroughly cleaned so no loose or compressible materials are present at the time of the concrete placement. If the drilled hole contains standing water, the concrete shall be placed using a tremie to displace water. Continuous concrete flow will be required to insure full displacement of any water.

The reinforcement and anchor bolts shall be adequately supported in the proper positions so no movement occurs during concrete placement. Welding of anchor bolts to the reinforcing cage is unacceptable, templates shall be used. Exposed portions of the foundation shall be formed to create a smooth finished surface. All forming shall be removed upon completion of foundation construction

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<b>Subsection:</b>	716.03.03 Trenching.
<b>Part:</b>	A) Trenching of Conduit for Highmast Ducted Cables.
<b>Revision:</b>	Add the following after the first sentence: If depths greater than 24 inches are necessary, obtain the Engineer's approval and maintain the required conduit depths coming into the junction boxes. No payment for additional junction boxes for greater depths will be allowed.
<b>Subsection:</b>	716.03.03 Trenching.
<b>Part:</b>	B) Trenching of Conduit for Non-Highmast Cables.
<b>Revision:</b>	Add the following after the second sentence: If depths greater than 24 inches are necessary for either situation listed previously, obtain the Engineer's approval and maintain the required conduit depths coming into the junction boxes.
<b>Subsection:</b>	716.03.04 Conduit Installation.
<b>Revision:</b>	Replace the first two sentences of the paragraph with the following: Provide rigid steel conduit encasement for all conductors except as specified in the Contract. Provide conduit that is listed on the Department's List of Approved Materials.
<b>Subsection:</b>	716.03.04 Conduit Installation.
<b>Part:</b>	A) Conduit Requirements in Junction Boxes.
<b>Number:</b>	1) Highmast Ducted Cable.
<b>Revision:</b>	Replace the first two sentences with the following: Install conduit horizontally through the junction box. Conduit shall be 4 inches from the bottom and 4 inches from the side of the junction box.
<b>Subsection:</b>	716.03.04 Conduit Installation.
<b>Revision:</b>	Add the following to the Part to the Subsection: <b>G) Bore and Jack.</b> Construction methods shall be in accordance with Subsections 706.03.02, paragraphs 1, 2 and 4.
<b>Subsection:</b>	716.03.08 Splicing.
<b>Revision:</b>	Replace the last sentence of the paragraph with the following: Ensure the splices are of the correct size for the wire being used.
<b>Subsection:</b>	716.03.10 Junction Boxes.
<b>Revision:</b>	Replace subsection title with the following: Electrical Junction Box and replace the last sentence of the paragraph with the following: Any additional junction boxes shall be approved by the Engineer.
<b>Subsection:</b>	716.03.13 Temporary Lighting.
<b>Revision:</b>	Change subsection heading to the following: <b>716.03.13 Temporary/Maintain Lighting.</b>
<b>Subsection:</b>	716.03.13 Temporary /Maintain Lighting.
<b>Revision:</b>	<p>Replace the entire section with the following:</p> <p>The Contractor shall furnish and install all materials necessary to temporarily light the proposed roadway to design standards in Subsection 716.03. The Contractor shall submit his proposed design of temporary lighting to the Division of Traffic Operations for approval at least 30 days before installation.</p> <p>Maintain all lighting elements impacted within or outside the project limits until new lighting elements are installed and a functional inspection has been performed on the new lighting elements. The Contractor shall submit a proposed design for maintaining lighting to the Division of Traffic Operations for approval at least 30 days before installation.</p>

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<b>Subsection:</b>	716.03.14 Remove Lighting.
<b>Revision:</b>	Replace the section with the following: Remove all lighting equipment that is identified by the Engineer as no longer necessary including, but not limited to, the following: pole bases, poles, junction boxes, cabinets, and wood poles. Pole bases shall be removed a minimum of one foot below finished grade by chipping off or other method that is approved by the Engineer. Dispose of all removed concrete off right-of-way. Wood poles shall be removed a minimum of one foot below finished grade. Backfill holes with material approved by the Engineer. Conduit may be abandoned in the ground. All materials shall be removed from the project as directed by the Engineer. Transformers not owned by a utility shall be tested for PCB's and disposed of in accordance with state regulations.
<b>Subsection:</b>	716.03.15 Painting.
<b>Revision:</b>	Replace the first sentence with the following: Clean non-galvanized or damaged surfaces of exposed junction boxes, pull boxes, control panels, poles, and similar equipment, and apply one coat of an inhibiting paint and two coats of aluminum paint.
<b>Subsection:</b>	716.04.01. Poles.
<b>Revision:</b>	Change the subsection heading to 716.04.01 Pole and replace the last sentence of the subsection with the following: The Department will not measure anchor bolts, washers, nuts, anchor bolt covers, ground lugs, and any associated hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	716.04.02 High Mast Pole.
<b>Revision:</b>	Replace the second sentence with the following: The Department will not measure the lowering device, anchor bolts, head frame assembly, cables, winch unit, power cables, wiring, connectors, circuit breakers, grounding lugs, ground wire, ground rods, conduits, test plugs,, adjustment and calibration of the unit to provide the desired operation, and any associated hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	716.04.03 Bracket.
<b>Revision:</b>	Replace the second sentence with the following: The Department will not measure any associated hardware needed for attaching the bracket to the pole for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	716.04.04 Pole Base.
<b>Revision:</b>	Change the subsection heading to 716.04.04 Pole Bases and delete the paragraph.
<b>Subsection:</b>	716.04.04 Pole Bases.
<b>Revision:</b>	<p>Insert the following:</p> <p><b>A. Pole Base.</b> The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure excavation, concrete, conduits, fittings, ground rods, ground wires, ground lugs, reinforcing steel, restoring disturbed areas to the satisfaction of the Engineer, and any associated hardware for payment and will consider them incidental to this item of work.</p> <p><b>B. Pole Base High Mast.</b> The Department will measure the quantity in cubic yards furnished and installed. The Department will not measure excavation, concrete, conduits, fittings, ground rods, ground wires, ground lugs, reinforcing steel, restoring disturbed areas to the satisfaction of the Engineer, and any associated hardware for payment and will consider them incidental to this item of work.</p>



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<b>Subsection:</b>	716.04.05 Pole Base in Median Wall.
<b>Revision:</b>	Replace the last sentence with the following: The Department will not measure conduits, fittings, junction boxes, additional reinforcing steel, ground rods, ground wire, ground lugs, and aluminum cover plates (if specified) for payment, and will consider them incidental to this item of work.
<b>Subsection:</b>	716.04.06 Transformer Base.
<b>Revision:</b>	Replace the last sentence with the following: The Department will not measure transformer door, ground lug, anchoring bolts, nuts, washers, and any associated hardware for payment and will consider them incidental to this item of work. The filling of any unused holes will also be considered incidental to this item of work.
<b>Subsection:</b>	716.04.07 Pole with Secondary Equipment.
<b>Revision:</b>	Replace the heading with the following: 716.04.07 Pole with Secondary Control Equipment.
<b>Subsection:</b>	716.04.07 Pole with Secondary Control Equipment.
<b>Revision:</b>	Replace the second and third sentence with the following: The Department will not measure mounting the cabinet to the pole, backfilling, restoration, any necessary hardware to anchor pole, electrical inspection fees, and required building fees involving utility secondary, and primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breaker, contactor, manual switch, ground rods, ground lugs, and ground wires for payment and will consider them incidental to this item of work. The filling of unused holes will also be considered incidental to this item of work.
<b>Subsection:</b>	716.04.08 Lighting Control Equipment.
<b>Revision:</b>	Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure the concrete base, excavation, backfilling, restoration, any necessary anchors, electrical inspection fees, and required building fees involving utility secondary/primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breakers, contactor, manual switch, ground rods, ground lugs, and ground wires for payment and will consider them incidental to this item of work. The Department will not measure the filling of any unused holes with and will consider them incidental to this item of work.
<b>Subsection:</b>	716.04.09 Luminaire.
<b>Revision:</b>	Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure lamps, starters, ballasts, drivers, surge protection, dimming modules, photo-control receptacle, specified shielding (if required), and any adjustments necessary to provide the desired lighting pattern for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	716.04.10 Fused Connector Kits.
<b>Revision:</b>	Replace the heading with the following: 716.04.10 Fuse Connector Kits.



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<b>Subsection:</b>	716.04.10 Fuse Connector Kits.
<b>Revision:</b>	Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure fuses/lugs for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	716.04.11 Conduit.
<b>Revision:</b>	Replace the second sentence with the following: The Department will not measure installation in ground or on structures, conduit fittings, test plugs, expansion joints with bonding straps, grounding lugs, drill anchors, clamps, and any additional hardware required for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	716.04.12 Markers.
<b>Revision:</b>	Replace the section with the following: The Department will measure the quantity as each individual unit furnished and installed.
<b>Subsection:</b>	716.04.13 Junction Box.
<b>Revision:</b>	Replace the subsection title with the following: Electrical Junction Box Type Various.
<b>Subsection:</b>	716.04.13 Electrical Junction Box Type Various.
<b>Revision:</b>	Replace the section with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure additional junction boxes for greater depths than those identified in Plans, #57 aggregate, backfilling, restoration of disturbed areas to the satisfaction of the Engineer, geotextile filter fabric, concrete, hot dipped galvanized cover, stainless steel screws, rubber gasket, and any associated hardware for payment , and will consider them incidental to this item of work.
<b>Subsection:</b>	716.04.13 Junction Box.
<b>Part:</b>	A) Junction Electrical.
<b>Revision:</b>	Delete Part A.
<b>Subsection:</b>	716.04.14 Trenching and Backfilling.
<b>Revision:</b>	Replace the section with the following: The Department will measure the quantity in linear feet. The Department will not measure excavation, backfilling, underground utility warning tape (if required), and the restoration of disturbed areas to original condition for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	716.04.15 Wire or Cable.
<b>Revision:</b>	Replace the section with the following: The Department will measure the quantity in linear feet furnished and installed. The Department will not measure installation within conduit, splice boots, and any other hardware required for installing cable for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	716.04.16 Ducted Cable.
<b>Revision:</b>	Replace the second sentence of the paragraph with the following: The Department will not measure installation within trench or conduit and any other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	716.04.17 Temporary Lighting
<b>Revision:</b>	Rename the subsection as follows: 716.04.17 Temporary Lighting/Maintain Lighting.

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<b>Subsection:</b>	716.04.17 Temporary Lighting/Maintain Lighting.																														
<b>Revision:</b>	Delete the paragraph and add the following parts: A) Temporary Lighting. The Department will measure the quantity by lump sum. The Department will not measure poles, luminaires, wire, conduit, trenching and backfilling, control equipment, all relocations and removal, design (if required), and any other necessary hardware to make a complete installation for payment and will consider them incidental to this item of work. B) Maintain Lighting. The Department will measure the quantity by lump sum. The Department will not measure maintenance of lighting elements and design (if required) for payment and will consider them incidental to this item of work.																														
<b>Subsection:</b>	716.04.18 Remove Lighting.																														
<b>Revision:</b>	Replace the paragraph with the following: The Department will measure the quantity by lump sum. The Department will not measure backfilling and the disposal or transportation of equipment and materials associated with any structural or electrical component of the lighting system including, but not limited to pole bases, poles, junction boxes, cabinets, and wood poles for payment and will consider them incidental to this item of work.																														
<b>Subsection:</b>	716.04.19 Remove Pole Base.																														
<b>Revision:</b>	Delete Subsection.																														
<b>Subsection:</b>	716.04.20 Bore and Jack Conduit.																														
<b>Revision:</b>	Renumber Subsection to 716.04.19 Bore and Jack Conduit.																														
<b>Subsection:</b>	716.04.19 Bore and Jack Conduit.																														
<b>Revision:</b>	Replace the paragraph with the following: The Department will measure the quantity in linear feet. This item shall include all work necessary for boring and installing conduit under an existing roadway.																														
<b>Subsection:</b>	716.05 PAYMENT.																														
<b>Revision:</b>	Revise the following under <u>Code</u> , <u>Pay Item</u> , and <u>Pay Unit</u> with the following: <table><tr><td><u>Code</u></td><td><u>Pay Item</u></td><td><u>Pay Unit</u></td></tr><tr><td>04700-04701</td><td>Pole(Various)Mtg Ht</td><td>Each</td></tr><tr><td>04710-04714</td><td>Pole(Various)Mtg Ht High Mast</td><td>Each</td></tr><tr><td>04810-04811</td><td>Electrical Junction Box (Various)</td><td>Each</td></tr><tr><td>20391NS835</td><td>Electrical Junction Box Type A</td><td>Each</td></tr><tr><td>20392NS835</td><td>Electrical Junction Box Type C</td><td>Each</td></tr><tr><td>04770-04773</td><td>Luminaire (Various)</td><td>Each</td></tr><tr><td>04780</td><td>Fuse Connector Kit</td><td>Each</td></tr><tr><td>20410ED</td><td>Maintain Lighting</td><td>Lump Sum</td></tr><tr><td>04941</td><td>Remove Pole Base</td><td>Each</td></tr></table>	<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>	04700-04701	Pole(Various)Mtg Ht	Each	04710-04714	Pole(Various)Mtg Ht High Mast	Each	04810-04811	Electrical Junction Box (Various)	Each	20391NS835	Electrical Junction Box Type A	Each	20392NS835	Electrical Junction Box Type C	Each	04770-04773	Luminaire (Various)	Each	04780	Fuse Connector Kit	Each	20410ED	Maintain Lighting	Lump Sum	04941	Remove Pole Base	Each
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04941	Remove Pole Base	Each																													
<b>Subsection:</b>	723.02.02 Paint.																														
<b>Revision:</b>	Replace sentence with the following: Conform to Section 821.																														
<b>Subsection:</b>	723.03 CONSTRUCTION.																														
<b>Revision:</b>	Replace bullet 5) with the following: 5) AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims,																														
<b>Subsection:</b>	723.03.02 Poles and Bases Installation.																														
<b>Revision:</b>	Replace the title with the following: 723.03.02 Pole and Base Installation.																														

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<b>Subsection:</b>	723.03.02 Pole and Base Installation.
<b>Revision:</b>	Replace the first paragraph with the following: Regardless of the station and offset noted, locate all poles/bases behind the guardrail a minimum of four feet from the front face of the guardrail to the front face of the pole base. Orient the handhole door away from traffic travel path. If pole base is installed within a sidewalk the top of the pole base shall be the same grade as the sidewalk.
<b>Subsection:</b>	723.03.02 Poles and Bases Installation.
<b>Part:</b>	A) Steel Strain and Mastarm Poles Installation
<b>Revision:</b>	Replace the title of Part A) Steel Strain and Mast Arm Pole Installation.
<b>Subsection:</b>	723.03.02 Pole and Base Installation.
<b>Part:</b>	A) Steel Strain and Mast Arm Pole Installation.
<b>Revision:</b>	Insert the following sentence at the beginning of the first paragraph: Install pole bases 4 to 6 inches above grade.
<b>Subsection:</b>	723.03.02 Pole and Base Installation.
<b>Part:</b>	A) Steel Strain and Mast Arm Pole Installation.
<b>Revision:</b>	Replace the second paragraph with the following: For concrete base installation, see Subsection 716.03.02 B), 2), Paragraphs 2-6. Drilled shaft depth shall be based on the soil conditions encountered during drilling and slope condition at the site. Refer to the design chart below:
<b>Subsection:</b>	723.03.02 Pole and Base Installation.
<b>Part:</b>	B) Pedestal or Pedestal Post Installation.
<b>Revision:</b>	Replace the second sentence with the following: If over 12 feet high the base shall have the minimum depth and diameter as Subsection 716.03.02 (A), paragraph 2.
<b>Subsection:</b>	723.03.02 Poles and Bases Installation.
<b>Part:</b>	B) Pedestal or Pedestal Post Installation.
<b>Revision:</b>	Replace the fourth sentence of the paragraph with the following: For breakaway supports, conform to Section 12 of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.
<b>Subsection:</b>	723.03.03 Trenching.
<b>Revision:</b>	Replace the first sentence with the following: See Subsection 716.03.03 (B).
<b>Subsection:</b>	723.03.03 Trenching.
<b>Part:</b>	A) Under Roadway.
<b>Revision:</b>	Delete Part A) Under Roadway.
<b>Subsection:</b>	723.03.05 Conduit Requirements in Junction Boxes.
<b>Revision:</b>	Delete the Subsection and replace with the following: 723.03.05 Fuse Connector Kits. See Subsection 716.03.09.
<b>Subsection:</b>	723.03.06 Coupling Installation.
<b>Revision:</b>	Delete the Subsection and replace with the following: 723.03.06 Painting. See Subsection 716.03.15.
<b>Subsection:</b>	723.03.07 Bonding Requirements.
<b>Revision:</b>	Delete the Subsection and replace with the following: 723.03.07 Electrical Junction Boxes. See Subsection 716.03.10.

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<b>Subsection:</b>	723.03.08 Painting.
<b>Revision:</b>	Replace with 723.03.06 Painting. See Subsection 716.03.15.
<b>Subsection:</b>	723.03.09 Underground Warning Tape.
<b>Revision:</b>	Renumber Subsection to 723.03.08 Underground Warning Tape.
<b>Subsection:</b>	723.03.10 Backfilling and Disturbed Areas.
<b>Revision:</b>	Renumber Subsection to 723.03.09 Backfilling and Disturbed Areas.
<b>Subsection:</b>	723.03.11 Wiring Installation.
<b>Revision:</b>	Renumber Subsection to 723.03.10 Wiring Installation.
<b>Subsection:</b>	723.03.10 Wiring Installation.
<b>Revision:</b>	Add the following sentence between the fifth and sixth sentences: Provide an extra two feet of loop wire and lead-in past the installed conduit in poles, pedestals, and junction boxes.
<b>Subsection:</b>	723.03.12 Loop Installation.
<b>Revision:</b>	Renumber Subsection to 723.03.11 Loop Installation.
<b>Subsection:</b>	723.03.11 Loop Installation.
<b>Revision:</b>	Replace the fourth sentence of the 2nd paragraph with the following: Provide an extra two feet of loop wire and lead-in past the installed conduit in poles, pedestals, and junction boxes.
<b>Subsection:</b>	723.03.13 Grounding Installation.
<b>Revision:</b>	Renumber Subsection to 723.03.12 Grounding Installation.
<b>Subsection:</b>	723.03.12 Grounding Installation.
<b>Revision:</b>	Replace the reference to "Standard Detail Sheets" in the first sentence with "Plans".
<b>Subsection:</b>	723.03.14 Splicing.
<b>Revision:</b>	Renumber Subsection to 723.03.13 Splicing.
<b>Subsection:</b>	723.03.13 Splicing.
<b>Revision:</b>	Delete the reference to (IMSA 19-2) from the 5th sentence of the paragraph.
<b>Subsection:</b>	723.03.15 Painting.
<b>Revision:</b>	Delete Subsection.
<b>Subsection:</b>	723.03.14 Splicing.
<b>Revision:</b>	Replace with new Subsection 723.03.14 Remove Signal Equipment.
<b>Subsection:</b>	723.03.14 Remove Signal Equipment.
<b>Revision:</b>	Insert the following for the new subsection: Remove all traffic signal equipment that is identified by the Engineer as no longer necessary including, but not limited to, the following: pole bases, poles, junction boxes, cabinets, wood poles, and advance warning flashers. Pole bases shall be removed a minimum of one foot below finished grade by chipping off or other method that is approved by the Engineer. Dispose of all removed concrete off right-of-way. Wood poles shall be removed a minimum of one foot below finished grade. Backfill holes with material approved by the Engineer. Conduit may be abandoned in the ground. Contact the district traffic Engineer to determine if any removed signal equipment needs to be returned to the district and to determine the location/time for such deliveries.
<b>Subsection:</b>	723.05.16 Drawings.
<b>Revision:</b>	Renumber the Subsection to 723.03.15 Drawings.

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<b>Subsection:</b>	723.03.15 Drawings.
<b>Revision:</b>	Replace Subsection with the following: Before final inspection of the traffic control device, provide a complete set of reproducible as-built drawings that show the arrangement and locations of all equipment including: junction boxes, conduits, spare conduits, etc. Keep a daily record of all conduits placed in trenches, showing the distance from the pavement edge, the depth, and the length of runs, and indicate this information on the as-built drawings.
<b>Subsection:</b>	723.03.17 Acceptance and Inspection Requirements.
<b>Revision:</b>	Renumber Subsection to 723.03.16 Acceptance and Inspection Requirements.
<b>Subsection:</b>	723.03.16 Acceptance and Inspection Requirements.
<b>Revision:</b>	Replace the first paragraph of the section with the following: See Subsection 105.12. In coordination with the District Traffic Engineer, energize traffic control device as soon as it is fully functional and ready for inspection. After the work has been completed, conduct an operational test demonstrating that the system operates in accordance with the Plans in the presence of the Engineer. The Department will also conduct its own tests with its own equipment before final acceptance. Ensure that the traffic control device remains operational until the Division of Traffic Operations has provided written acceptance of the electrical work.
<b>Subsection:</b>	723.04.01 Conduit.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure conduit fittings, ground lugs, test plugs, expansion joints, and clamps for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.02 Junction Box.
<b>Revision:</b>	Replace subsection title with the following: Electrical Junction Box Type Various.
<b>Subsection:</b>	723.04.02 Electrical Junction Box Type Various.
<b>Revision:</b>	Replace the subsection with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure additional junction boxes for greater depths than those identified in Plans, Aggregate (#57), backfilling, restoration of disturbed areas to the satisfaction of the Engineer, geotextile fabric, concrete, hot dipped galvanized cover, stainless steel screws, rubber gasket, and any associated hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.03 Trenching and Backfilling.
<b>Revision:</b>	Replace the second sentence with the following: The Department will not measure excavation, backfilling, underground utility warning tape, and the restoration of disturbed areas to original condition for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.04 Open Cut Roadway.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure concrete, reinforcing steel, and asphalt for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.05 Loop Wire.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure splice boots, cable rings, and any other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.06 Cable.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure splice boots, cable rings, and any other hardware for payment and will consider them incidental to this item of work.

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<b>Subsection:</b>	723.04.07 Pole-Wooden.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure excavation, backfilling, and restoring disturbed areas for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.08 Steel Strain Pole.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure excavation, backfilling, and restoring disturbed areas for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.09 Mast Arm Pole.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure anchor bolts, arms, mounting brackets, and any other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.10 Signal Pedestal.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure excavation, concrete, reinforcing steel, conduits, fittings, ground rods, ground wire, ground lugs, backfilling, restoring disturbed areas, and other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.11 Post.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure excavation, backfilling, and restoring disturbed areas for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.12 Anchor.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: . The Department will not measure down-guy, messenger, clamps, guy guard, or insulators, and possible installation in various soil conditions for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.13 Messenger.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure strand vises, bolts, washers, and other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.14 Install Signal LED.
<b>Revision:</b>	Revise subsection title to 723.04.14 Install Beacon Controller - 2 Circuit.
<b>Subsection:</b>	723.04.14 Install Beacon Controller - 2 Circuit.
<b>Revision:</b>	Replace the subsection with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure the controller housing, mounting equipment, S5-1 school zone sign, time clock, nema flasher, ground rods, ground wires, ground lugs, metering disconnect hardware, electrical inspection fees, and required building fees involving utility secondary/primary service for payment and will consider them incidental to this item of work.

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<b>Subsection:</b>	723.04.15 Loop Saw Slot and Fill.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure sawing, cleaning, filling induction loop saw slot, loop sealant, backer rod, drilling hole for conduit, and grout for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.16 Pedestrian Detector.
<b>Revision:</b>	Replace the subsection with the following: The Department will measure the quantity as each individual unit furnished, installed and connected to pole/pedestal. The Department will not measure installing R10-3e signs, detector housing, and installing mounting hardware for sign for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.17 Signal.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure furnishing and installing LED modules, retroreflective tape, back plates, and any other hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.18 Signal Controller- Type 170.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure the concrete base, mounting the cabinet, connecting the signal and detectors, excavation, backfilling, restoration, any necessary pole mounting hardware, electric service, electrical inspection fees, and building fees involving secondary/primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and connecting the induction of loop amplifiers, pedestrian isolators, load switches, model 400 modem card, electrical service conductors, conduits, anchors, meter base, fused cutout, fuses, ground rods, ground wires, and ground lugs for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.19 Beacon Controller - 2 Circuit.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure the controller housing, mounting equipment, S5-1 school zone sign, time clock, nema flasher, ground rods, ground wires, ground lugs, metering disconnect hardware, electrical inspection fees, and required building fees involving utility secondary/primary service for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.20 Install Signal Controller - Type 170.
<b>Revision:</b>	Replace the paragraph with the following: The Department will measure the quantity as each individual unit installed. The Department will not measure the concrete base, mounting the cabinet, connecting the signal and detectors, excavation, backfilling, restoration, any necessary pole mounting hardware, electric service, electrical inspection fees, and required building fees involving utility secondary/primary service for payment and will consider them incidental to this item of work. The Department will also not measure connecting the induction loop amplifiers, pedestrian isolators, load switches, model 400 modem card for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, conduits, anchors, meter base, fused cutout, fuses, ground rods, ground lugs, and ground wires for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.21 Install Steel Strain Pole.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure any necessary clamp assemblies for payment and will consider them incidental to this item of work.



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<b>Subsection:</b>	723.04.22 Remove Signal Equipment.
<b>Revision:</b>	Replace the paragraph with the following: The Department will measure the quantity by lump sum. The Department will not measure backfilling and the disposal or transportation of equipment and materials associated with any structural or electrical component of the signal system including, but not limited to pole bases, poles, junction boxes, cabinets, and wood poles for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.23 Install Span/Pole Mounted Sign.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure the hanger or any other hardware necessary to install the sign for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.24 Install Pedestrian Head LED.
<b>Revision:</b>	Insert the following sentence at the end of the paragraph: The Department will not measure the installation of LED modules and any other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.25 Install Signal LED.
<b>Revision:</b>	Insert the following sentence at the end of the paragraph: The Department will not measure the installation of LED modules, retroreflective tape, back plates, and any other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.26 Install Coordinating Unit.
<b>Revision:</b>	Replace the subsection with the following: The Department will measure the quantity as each individual unit installed. The Department will not measure radio, modem, cable(s), antenna(s), router, repeater, and any other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.27 Video Camera.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure video modules, mounting bracket, truss type arm, power cable, coaxial cable, and any other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.28 Install Pedestrian Detector Audible.
<b>Revision:</b>	Replace the second sentence with the following: The Department will not measure installing R10-3e sign, detector housing, and installing mounting hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.29 Audible Pedestrian Detector.
<b>Revision:</b>	Replace the second sentence with the following: The Department will not measure furnishing and installing the R10-3e sign, detector housing, and installing mounting hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.30 Bore and Jack Conduit.
<b>Revision:</b>	Replace the paragraph with the following: The Department will measure the quantity in linear feet. This item shall include all work necessary for boring and installing conduit under an existing roadway.



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<b>Subsection:</b>	723.04.31 Install Pedestrian Detector.
<b>Revision:</b>	Replace the paragraph with the following: The Department will measure the quantity as each individual unit installed and connected to pole/pedestal. The Department will not measure installing R 10-3e sign, detector housing, and installing mounting hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.32 Install Mast Arm Pole.
<b>Revision:</b>	Replace the second sentence with the following: The Department will not measure installation of arms, signal mounting brackets, anchor bolts, and any other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.33 Pedestal Post.
<b>Revision:</b>	Replace the second sentence with the following: The Department will not measure excavation, backfilling, restoration, furnishing and installing concrete, reinforcing steel, anchor bolts, conduit, fittings, ground rod, ground wire, ground lugs, or any other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.34 Span Mounted Sign.
<b>Revision:</b>	Revise subsection title to 723.04.34 Span/Pole-Mounted Sign.
<b>Subsection:</b>	723.04.34 Span/Pole-Mounted Sign.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure the hanger, sign, and any other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.35 Remove and Reinstall Coordinating Unit.
<b>Revision:</b>	Add the following sentence to the end of the subsection: The Department will not measure removing, storage, reinstalling, and connecting radio, modem, cable(s), antenna(s), router, repeater, and any other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.36 Traffic Signal Pole Base.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure excavation, backfilling, restoration, furnishing and installing reinforcing steel, anchor bolts, conduits, ground rods, ground wires, and ground lugs for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.37 Install Signal Pedestal.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: . The Department will not measure excavation, backfilling, restoration, furnishing and installing concrete, reinforcing steel, conduits, fittings, ground rod, ground wire, ground lugs, and any other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.38 Install Pedestal Post.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure excavation, backfilling, restoration, furnishing and installing concrete, reinforcing steel, conduit, fittings, ground rod, ground wire, ground lugs, and any other necessary hardware for payment and will consider them incidental to this item of work.
<b>Subsection:</b>	723.04.39 Install Antenna.
<b>Revision:</b>	Replace the second sentence of the subsection with the following: The Department will not measure any other materials necessary to complete the installation for payment and will consider them incidental to this item of work.

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<b>Subsection:</b>	723.05 PAYMENT.		
<b>Revision:</b>	Replace items 04810-04811, 20391NS835, 20392NS835,23052NN and add item number 24526ED under <u>Code</u> , <u>Pay Item</u> , and <u>Pay Unit</u> with the following:		
	<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
	04810	Electrical Junction Box	Each
	04811	Electrical Junction Box Type B	Each
	20391NS835	Electrical Junction Box Type A	Each
	20392NS835	Electrical Junction Box Type C	Each
	23052NN	Span/Pole-Mounted Sign	Each
	24526ED	Install Beacon Controller 2 Cir	Each
<b>Subsection:</b>	801.01 REQUIREMENTS		
<b>Revision:</b>	Replace first sentence in paragraph one with the following: Provide Portland cement <i>or blended hydraulic cement</i> from approved mills listed in the Department's List of Approved Materials.		
<b>Subsection:</b>	801.01 REQUIREMENTS		
<b>Number:</b>	1)		
<b>Revision:</b>	Replace first sentence with the following: Type I, II, III, and IV <i>Portland cement</i> conforms to ASTM C 150.		
<b>Subsection:</b>	801.01 REQUIREMENTS		
<b>Number:</b>	3)		
<b>Revision:</b>	Replace the first sentence with the following: Type IP (≤20), Portland-pozzolan cement, conforms to ASTM C595, and the following additional requirements to Type IP (≤20).		
<b>Subsection:</b>	801.01 REQUIREMENTS		
<b>Number:</b>	3)		
<b>Part:</b>	b)		
<b>Revision:</b>	Delete part b)		
<b>Subsection:</b>	801.01 REQUIREMENTS		
<b>Number:</b>	3)		
<b>Part:</b>	c)		
<b>Revision:</b>	Rename Part c) to Part b) and replace the text with the following: The cement manufacturer shall furnish to the Engineer reports showing the results of tests performed on the fly ash used in the manufacture of the Type IP(≤20) cement shipped to the project.		
<b>Subsection</b>	801.01 REQUIREMENTS		
<b>Number:</b>	3)		
<b>Part:</b>	d)		
<b>Revision:</b>	Rename Part d) to Part c)		
<b>Subsection:</b>	801.01 REQUIREMENTS		
<b>Number:</b>	3)		
<b>Part:</b>	e)		
<b>Revision:</b>	Rename Part e) to Part d) and replace the text with the following: Use only one brand of Type IP(≤20) cement throughout the project, unless the Engineer approved a change in brand in writing.		
<b>Subsection:</b>	801.01 REQUIREMENTS		
<b>Number:</b>	4)		
<b>Revision:</b>	Replace first sentence with the following: Type IS(≤30), Portland blast furnace slag cement, conforms to ASTM C 595 and the following requirements:		

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<b>Subsection:</b>	801.01 REQUIREMENTS
<b>Number:</b>	4)
<b>Part:</b>	a)
<b>Revision:</b>	Replace part a) with the following: Use Grade 100 or 120 blast furnace slag cement conforming to the requirements of ASTM C 989.
<b>Subsection:</b>	801.01 REQUIREMENTS
<b>Number:</b>	4)
<b>Part:</b>	b)
<b>Revision:</b>	Delete part b)
<b>Subsection:</b>	801.01 REQUIREMENTS
<b>Number:</b>	4)
<b>Part:</b>	c)
<b>Revision:</b>	Rename Part c) to Part b) and replace the text with the following: The cement manufacturer shall furnish to the Engineer reports showing the results of the tests performed on the blast furnace slag cement used in the manufacturing of the Type IS( $\leq$ 30) shipped to the project.
<b>Subsection:</b>	801.01 REQUIREMENTS
<b>Number:</b>	4)
<b>Part:</b>	d)
<b>Revision:</b>	Rename Part d) to Part c)
<b>Subsection:</b>	801.01 REQUIREMENTS
<b>Number:</b>	4)
<b>Part:</b>	e)
<b>Revision:</b>	Rename Part e) to Part d) and replace the text with the following: Use only one brand of Type IS( $\leq$ 30) cement throughout the project, unless the Engineer approves otherwise.
<b>Subsection:</b>	801.01 REQUIREMENTS
<b>Number:</b>	5)
<b>Revision:</b>	Insert part 5) as the following: Type IL(5-15), Portland-limestone cement, conforms to ASTM C 595 and the following additional requirements:
<b>Subsection:</b>	801.01 REQUIREMENTS
<b>Number:</b>	5)
<b>Part:</b>	a)
<b>Revision:</b>	Insert part a) as the following: The cement manufacturer shall furnish to the Engineer reports showing the results of test performed on the limestone used in the manufacture of the Type IL cement shipped to the project.
<b>Subsection:</b>	801.01 REQUIREMENTS
<b>Number:</b>	5)
<b>Part:</b>	b)
<b>Revision:</b>	Insert part b) as the following: Use only one brand of Type IL cement throughout the project, unless the Engineer approves a brand change in writing.
<b>Subsection:</b>	801.01 REQUIREMENTS
<b>Number:</b>	5)
<b>Part:</b>	c)
<b>Revision:</b>	Insert part c) as the following: The Type IL blended cement shall be an intimate and uniform blend produced by intergrinding of the Portland cement and limestone.
<b>Subsection:</b>	804.01.02 Crushed Sand.
<b>Revision:</b>	Delete last sentence of the section.

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<b>Subsection:</b>	804.01.06 Slag.														
<b>Revision:</b>	Add subsection and following sentence. Provide blast furnace slag sand where permitted. The Department will allow steel slag sand only in asphalt surface applications.														
<b>Subsection:</b>	804.04 Asphalt Mixtures.														
<b>Revision:</b>	Replace the subsection with the following: Provide natural, crushed, conglomerate, or blast furnace slag sand, with the addition of filler as necessary, to meet gradation requirements. The Department will allow any combination of natural, crushed, conglomerate or blast furnace slag sand when the combination is achieved using cold feeds at the plant. The Engineer may allow other fine aggregates.														
<b>Subsection:</b>	806.03.01 General Requirements.														
<b>Revision:</b>	Replace the second sentence of the paragraph with the following: Additionally, the material must have a minimum solubility of 99.0 percent when tested according to AASHTO T 44 and PG 76-22 must exhibit a minimum recovery of 60 percent, with a J <sub>NR</sub> (non-recoverable creep compliance) between 0.1 and 0.5, when tested according to AASHTO TP 70.														
<b>Subsection:</b>	806.03.01 General Requirements.														
<b>Table:</b>	PG Binder Requirements and Price Adjustment Schedule														
<b>Revision:</b>	Replace the Elastic Recovery, % <sup>(3)</sup> (AASHTO T301) and all corresponding values in the table with the following: <table><tr><td><u>Test</u></td><td><u>Specification</u></td><td><u>100% Pay</u></td><td><u>90% Pay</u></td><td><u>80% Pay</u></td><td><u>70% Pay</u></td><td><u>50%Pay<sup>(1)</sup></u></td></tr><tr><td>MSCR recovery, % <sup>(3)</sup> (AASHTO TP 70)</td><td>60 Min.</td><td>≥58</td><td>56</td><td>55</td><td>54</td><td>&lt;53</td></tr></table>	<u>Test</u>	<u>Specification</u>	<u>100% Pay</u>	<u>90% Pay</u>	<u>80% Pay</u>	<u>70% Pay</u>	<u>50%Pay<sup>(1)</sup></u>	MSCR recovery, % <sup>(3)</sup> (AASHTO TP 70)	60 Min.	≥58	56	55	54	<53
<u>Test</u>	<u>Specification</u>	<u>100% Pay</u>	<u>90% Pay</u>	<u>80% Pay</u>	<u>70% Pay</u>	<u>50%Pay<sup>(1)</sup></u>									
MSCR recovery, % <sup>(3)</sup> (AASHTO TP 70)	60 Min.	≥58	56	55	54	<53									
<b>Subsection:</b>	806.03.01 General Requirements.														
<b>Table:</b>	PG Binder Requirements and Price Adjustment Schedule														
<b>Superscript:</b>	(3)														
<b>Revision:</b>	Replace <sup>(3)</sup> with the following: Perform testing at 64°C.														
<b>Subsection:</b>	808.07 Polypropylene Waterproofing Membrane.														
<b>Revision:</b>	Replace the paragraph and table with the following: Furnish a layered waterproofing membrane. The layers will consist of an internal puncture resistant woven polypropylene fabric sandwiched between two rubberized mastic layers. The mastic will have a heavy polyethylene membrane attached on the top and the bottom mastic layer will be covered by a protective release film.														
<b>Subsection:</b>	808.09 Acceptance.														
<b>Revision:</b>	Replace the reference to "KMIMS" in the second paragraph with SiteManager.														
<b>Subsection:</b>	811.10.04 Properties of the Coated Bar.														
<b>Part:</b>	B) Flexibility of Coating.														
<b>Revision:</b>	Replace the second sentence of the paragraph with the following: Ensure that the coated bars are capable of being bent to 180 degrees (after rebound) over a mandrel, without any visible evidence of cracking the coating.														
<b>Subsection:</b>	813.04 Gray Iron Castings.														
<b>Revision:</b>	Replace the reference to "AASHTO M105" with "ASTM A48".														
<b>Subsection:</b>	813.09.02 High Strength Steel Bolts, Nuts, and Washers.														
<b>Number:</b>	A) Bolts.														
<b>Revision:</b>	Delete first paragraph and "Hardness Number" Table. Replace with the following: A) Bolts. Conform to ASTM A325 (AASHTO M164) or ASTM A490 (AASHTO 253) as applicable.														

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<b>Subsection:</b>	814.04.02 Timber Guardrail Posts.
<b>Revision:</b>	Third paragraph, replace the reference to "AWPA C14" with "AWPA U1, Section B, Paragraph 4.1".
<b>Subsection:</b>	814.04.02 Timber Guardrail Posts.
<b>Revision:</b>	Replace the first sentence of the fourth paragraph with the following: Use any of the species of wood for round or square posts covered under AWPA U1.
<b>Subsection:</b>	814.04.02 Timber Guardrail Posts.
<b>Revision:</b>	Fourth paragraph, replace the reference to "AWPA C2" with "AWPA U1, Section B, Paragraph 4.1".
<b>Subsection:</b>	814.04.02 Timber Guardrail Posts.
<b>Revision:</b>	Delete the second sentence of the fourth paragraph.
<b>Subsection:</b>	814.05.02 Composite Plastic.
<b>Revision:</b>	1) Add the following to the beginning of the first paragraph: Select composite offset blocks conforming to this section and assure blocks are from a manufacturer included on the Department's List of Approved Materials. 2) Delete the last paragraph of the subsection.
<b>Subsection:</b>	816.07.02 Wood Posts and Braces.
<b>Revision:</b>	First paragraph, replace the reference to "AWPA C5" with "AWPA U1, Section B, Paragraph 4.1".
<b>Subsection:</b>	816.07.02 Wood Posts and Braces.
<b>Revision:</b>	Delete the second sentence of the first paragraph.
<b>Subsection:</b>	818.07 Preservative Treatment.
<b>Revision:</b>	First paragraph, replace all references to "AWPA C14" with "AWPA U1, Section A".
<b>Subsection:</b>	833.01.02 Sheeting Signs.
<b>Revision:</b>	Replace the second sentence with the following: Provide a thickness of 125 mils if any single edge dimension of the sign exceeds 3 feet.
<b>Subsection:</b>	834.14 Lighting Poles.
<b>Revision:</b>	Replace the first sentence with the following: Lighting pole design shall be in accordance with loading and allowable stress requirements of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims, with the exception of the following: The Cabinet will waive the requirement stated in the first sentence of Section 5.14.6.2 – Reinforced Holes and Cutouts for high mast poles (only). The minimum diameter at the base of the pole shall be 22 inches for high mast poles (only).
<b>Subsection:</b>	834.14.03 High Mast Poles.
<b>Revision:</b>	Remove the second and fourth sentence from the first paragraph.
<b>Subsection:</b>	834.14.03 High Mast Poles.
<b>Revision:</b>	Replace the third paragraph with the following: Provide calculations and drawings that are stamped by a Professional Engineer licensed in the Commonwealth of Kentucky.

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<b>Subsection:</b>	834.14.03 High Mast Poles.
<b>Revision:</b>	<p>Replace paragraph six with the following: Provide a pole section that conforms to ASTM A 595 grade A with a minimum yield strength of 55 KSI or ASTM A 572 with a minimum yield strength of 55 KSI. Use tubes that are round or 16 sided with a four inch corner radius, have a constant linear taper of .144 in/ft and contain only one longitudinal seam weld. Circumferential welded tube butt splices and laminated tubes are not permitted. Provide pole sections that are telescopically slip fit assembled in the field to facilitate inspection of interior surface welds and the protective coating. The minimum length of the telescopic slip splices shall be 1.5 times the inside diameter of the exposed end of the female section. Use longitudinal seam welds as commended in Section 5.15 of the AASHTO 2013 Specifications. The thickness of the transverse base shall not be less than 2 inches. Plates shall be integrally welded to the tubes with a telescopic welded joint or a full penetration groove weld with backup bar.</p> <p>The handhole cover shall be removable from the handhole frame. One the frame side opposite the hinge, provide a mechanism on the handhole cover/frame to place the Department's standard padlock as specified in Section 834.25. The handhole frame shall have two stainless studs installed opposite the hinge to secure the handhole cover to the frame which includes providing stainless steel wing nuts and washers. The handhole cover shall be manufactured from 0.25 inch thick galvanized steel (ASTM A 153) and have a neoprene rubber gasket that is permanently secured to the handhole frame to insure weather-tight protection. The hinge shall be manufactured from 7-guage stainless steel to provide adjustability to insure weather-tight fit for the cover. The minimum clear distance between the transverse plate and the bottom opening of the handhole shall not be less than the diameter of the bottom tube of the pole but needs to be at least 15 inches. Provide products that are hot-dip galvanized to the requirements of either ASTM A123 (fabricated products) or ASTM A 153 (hardware items).</p>
<b>Subsection:</b>	834.16 ANCHOR BOLTS.
<b>Revision:</b>	Insert the following sentence at the beginning of the paragraph: The anchor bolt design shall follow the NCHRP Report 494 Section 2.4 and NCHRP 469 Appendix A Specifications.
<b>Subsection:</b>	834.17.01 Conventional.
<b>Revision:</b>	Add the following sentence after the second sentence: Provide a waterproof sticker mounted on the bottom of the housing that is legible from the ground and indicates the wattage of the fixture by providing the first two numbers of the wattage.
<b>Subsection:</b>	834.21.01 Waterproof Enclosures.
<b>Revision:</b>	<p>Replace the last five sentences in the second paragraph with the following sentences: Provide a cabinet door with a louvered air vent, filter-retaining brackets and an easy to clean metal filter. Provide a cabinet door that is keyed with a factory installed standard no. 2 corbin traffic control key. Provide a light fixture with switch and bulb. Use a 120-volt fixture and utilize a L.E.D. bulb (equivalent to 60 watts minimum). Fixture shall be situated at or near the top of the cabinet and illuminate the contents of the cabinet. Provide a 120 VAC GFI duplex receptacle in the enclosure with a separate 20 amp breaker.</p>

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<b>Subsection:</b>	835.07 Traffic Poles.
<b>Revision:</b>	Replace the first sentence of the first paragraph with the following: Pole diameter and wall thickness shall be calculated in accordance with the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.
<b>Subsection:</b>	835.07 Traffic Poles.
<b>Revision:</b>	*Replace the first sentence of the fourth paragraph with the following: Ensure transverse plates have a thickness $\geq 2$ inches. *Add the following sentence to the end of the fourth paragraph: The bottom pole diameter shall not be less than 16.25 inches.
<b>Subsection:</b>	835.07 Traffic Poles.
<b>Revision:</b>	Replace the third sentence of the fifth paragraph with the following: For anchor bolt design, pole forces shall be positioned in such a manner to maximize the force on any individual anchor bolt regardless of the actual anchor bolt orientation with the pole.
<b>Subsection:</b>	835.07 Traffic Poles.
<b>Revision:</b>	Replace the first and second sentence of the sixth paragraph with the following: The pole handhole shall be 25 inches by 6.5 inches. The handhole cover shall be removable from the handhole frame. On the frame side opposite the hinge, provide a mechanism on the handhole cover/frame to place the Department's standard padlock as specified in Section 834.25. The handhole frame shall have two stainless studs installed opposite the hinge to secure the handhole cover to the frame which includes providing stainless steel wing nuts and washers. The handhole cover shall be manufactured from 0.25 inch thick galvanized steel (ASTM 153) and have a neoprene rubber gasket that is permanently secured to the handhole frame to insure weather-tight protection. The hinge shall be manufactured from 7 gauge stainless steel to provide adjustability to insure a weather-tight fit for the cover. The minimum clear distance between the transverse plate and the bottom opening of the handhole shall not be less than the diameter of the bottom tube but needs to be at least 12 inches.
<b>Subsection:</b>	835.07 Traffic Poles.
<b>Revision:</b>	*Replace the first sentence of the last paragraph with the following: Provide calculations and drawings that are stamped by a Professional Engineer licensed in the Commonwealth of Kentucky. *Replace the third sentence of the last paragraph with the following: All tables referenced in 835.07 are found in the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.
<b>Subsection:</b>	835.07.01 Steel Strain Poles.
<b>Revision:</b>	Replace the second sentence of the second paragraph with the following: The detailed analysis shall be certified by a Professional Engineer licensed in the Commonwealth of Kentucky.
<b>Subsection:</b>	835.07.01 Steel Strain Poles.
<b>Revision:</b>	Replace number 7. after the second paragraph with the following: 7. Fatigue calculations should be shown for all fatigue related connections. Provide the corresponding detail, stress category and example from table 11.9.3.1-1.
<b>Subsection:</b>	835.07.02 Mast Arm Poles.
<b>Revision:</b>	Replace the second sentence of the fourth paragraph with the following: The detailed analysis shall be certified by a Professional Engineer licensed in the Commonwealth of Kentucky.

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<b>Subsection:</b>	835.07.02 Mast Arm Poles.										
<b>Revision:</b>	Replace number 7) after the fourth paragraph with the following: 7) Fatigue calculations should be shown for all fatigue related connections. Provide the corresponding detail, stress category and example from table 11.9.3.1-1.										
<b>Subsection:</b>	835.07.03 Anchor Bolts.										
<b>Revision:</b>	Add the following to the end of the paragraph: There shall be two steel templates (one can be used for the headed part of the anchor bolt when designed in this manner) provided per pole. Templates shall be contained within a 26.5 inch diameter. All templates shall be fully galvanized (ASTM A 153).										
<b>Subsection:</b>	835.16.05 Optical Units.										
<b>Revision:</b>	Replace the 3rd paragraph with the following: The list of certified products can be found on the following website: <a href="http://www.intertek.com">http://www.intertek.com</a> .										
<b>Subsection:</b>	835.19.01 Pedestrian Detector Body.										
<b>Revision:</b>	Replace the first sentence with the following: Provide a four holed pole mounted aluminum rectangular housing that is compatible with the pedestrian detector.										
<b>Subsection:</b>	843.01.01 Geotextile Fabric.										
<b>Table:</b>	TYPE I FABRIC GEOTEXTILES FOR SLOPE PROTECTION AND CHANNEL LINING										
<b>Revision:</b>	Add the following to the chart:										
	<table><tr><th><u>Property</u></th><th><u>Minimum Value<sup>(1)</sup></u></th><th><u>Test Method</u></th></tr><tr><td>CBR Puncture (lbs)</td><td>494</td><td>ASTM D6241</td></tr><tr><td>Permittivity (1/s)</td><td>0.7</td><td>ASTM D4491</td></tr></table>	<u>Property</u>	<u>Minimum Value<sup>(1)</sup></u>	<u>Test Method</u>	CBR Puncture (lbs)	494	ASTM D6241	Permittivity (1/s)	0.7	ASTM D4491	
<u>Property</u>	<u>Minimum Value<sup>(1)</sup></u>	<u>Test Method</u>									
CBR Puncture (lbs)	494	ASTM D6241									
Permittivity (1/s)	0.7	ASTM D4491									
<b>Subsection:</b>	843.01.01 Geotextile Fabric.										
<b>Table:</b>	TYPE II FABRIC GEOTEXTILES FOR UNDERDRAINS										
<b>Revision:</b>	Add the following to the chart:										
	<table><tr><th><u>Property</u></th><th><u>Minimum Value<sup>(1)</sup></u></th><th><u>Test Method</u></th></tr><tr><td>CBR Puncture (lbs)</td><td>210</td><td>ASTM D6241</td></tr><tr><td>Permittivity (1/s)</td><td>0.5</td><td>ASTM D4491</td></tr></table>	<u>Property</u>	<u>Minimum Value<sup>(1)</sup></u>	<u>Test Method</u>	CBR Puncture (lbs)	210	ASTM D6241	Permittivity (1/s)	0.5	ASTM D4491	
<u>Property</u>	<u>Minimum Value<sup>(1)</sup></u>	<u>Test Method</u>									
CBR Puncture (lbs)	210	ASTM D6241									
Permittivity (1/s)	0.5	ASTM D4491									
<b>Subsection:</b>	843.01.01 Geotextile Fabric.										
<b>Table:</b>	TYPE III FABRIC GEOTEXTILES FOR SUBGRADE OR EMBANKMENT STABILIZATION										
<b>Revision:</b>	Add the following to the chart:										
	<table><tr><th><u>Property</u></th><th><u>Minimum Value<sup>(1)</sup></u></th><th><u>Test Method</u></th></tr><tr><td>CBR Puncture (lbs)</td><td>370</td><td>ASTM D6241</td></tr><tr><td>Permittivity (1/s)</td><td>0.05</td><td>ASTM D4491</td></tr></table>	<u>Property</u>	<u>Minimum Value<sup>(1)</sup></u>	<u>Test Method</u>	CBR Puncture (lbs)	370	ASTM D6241	Permittivity (1/s)	0.05	ASTM D4491	
<u>Property</u>	<u>Minimum Value<sup>(1)</sup></u>	<u>Test Method</u>									
CBR Puncture (lbs)	370	ASTM D6241									
Permittivity (1/s)	0.05	ASTM D4491									
<b>Subsection:</b>	843.01.01 Geotextile Fabric.										
<b>Table:</b>	TYPE IV FABRIC GEOTEXTILES FOR EMBANKMENT DRAINAGE BLANKETS AND PAVEMENT EDGE DRAINS										
<b>Revision:</b>	Add the following to the chart:										
	<table><tr><th><u>Property</u></th><th><u>Minimum Value<sup>(1)</sup></u></th><th><u>Test Method</u></th></tr><tr><td>CBR Puncture (lbs)</td><td>309</td><td>ASTM D6241</td></tr><tr><td>Permittivity (1/s)</td><td>0.5</td><td>ASTM D4491</td></tr></table>	<u>Property</u>	<u>Minimum Value<sup>(1)</sup></u>	<u>Test Method</u>	CBR Puncture (lbs)	309	ASTM D6241	Permittivity (1/s)	0.5	ASTM D4491	
<u>Property</u>	<u>Minimum Value<sup>(1)</sup></u>	<u>Test Method</u>									
CBR Puncture (lbs)	309	ASTM D6241									
Permittivity (1/s)	0.5	ASTM D4491									



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<b>Subsection:</b>	843.01.01 Geotextile Fabric.		
<b>Table:</b>	TYPE V HIGH STRENGTH GEOTEXTILE FABRIC		
<b>Revision:</b>	Make the following changes to the chart:		
	<u>Property</u>	<u>Minimum Value<sup>(1)</sup></u>	<u>Test Method</u>
	CBR Puncture (lbs)	618	ASTM D6241
	Apparent Opening Size	U.S. #40 <sup>(3)</sup>	ASTM D4751
	<sup>(3)</sup> Maximum average roll value.		

2016 STANDARD DRAWINGS THAT APPLY

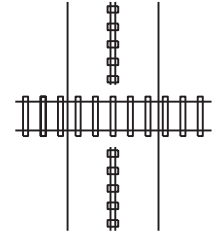
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APPROACHES, ENTRANCES, AND MAIL BOX TURNOUT .....	RPM-110-07
PAVEMENT MARKER ARRANGEMENTS MULTI-LANE ROADWAYS.....	TPM-100-03
PAVEMENT MARKER ARRANGEMENTS MULTI-LANE ROADWAYS.....	TPM-105-03
PAVEMENT MARKER ARRANGEMENTS MULTI-LANE ROADWAYS.....	TPM-110-03
PAVEMENT MARKER ARRANGEMENTS TWO-LANE TWO-WAY ROADWAYS .....	TPM-115-03
PAVEMENT MARKER ARRANGEMENT TWO-LANE TO FOUR-LANE TRANSITIONS.....	TPM-120-03
PAVEMENT MARKER ARRANGEMENT EXIT-GORE AND OFF-RAMP.....	TPM-125-03
PAVEMENT MARKER ARRANGEMENT FOR PARALLEL DECELERATION LANE.....	TPM-126
PAVEMENT MARKER ARRANGEMENT ON-RAMP WITH TAPERED ACCELERATION LANE.....	TPM-130-03
PAVEMENT MARKER ARRANGEMENT ON-RAMP WITH PARALLEL ACCELERATION LANE.....	TPM-135-03
PAVEMENT MARKER ARRANGEMENTS TWO-WAY LEFT TURN LANE .....	TPM-140-03
PAVEMENT MARKER ARRANGEMENT CHANNELIZED INTERSECTION .....	TPM-145-03
CENTERLINE RUMBLE STRIPS.....	TPM-150-03
CENTERLINE RUMBLE STRIP 4 INCH STRIPING .....	TPM-155-02
CENTERLINE RUMBLE STRIP 6 INCH STRIPING .....	TPM-160-01
MOBILE OPERATION FOR PAINT STRIPING CASE I .....	TTS-100-02
MOBILE OPERATION FOR PAINT STRIPING CASE II .....	TTS-105-02
MOBILE OPERATION FOR PAINT STRIPING CASE III.....	TTS-110-02
MOBILE OPERATION FOR PAINT STRIPING CASE IV.....	TTS-115-02
MOBILE OPERATION FOR DURABLE STRIPING CASE I.....	TTS-120-02
MOBILE OPERATION FOR DURABLE STRIPING CASE II .....	TTS-125-02
MOBILE OPERATION FOR DURABLE STRIPING CASE III .....	TTS-130-02
MOBILE OPERATION FOR DURABLE STRIPING CASE IV .....	TTS-135-02

COUNTY OF	ITEM NO.	SHEET NO.

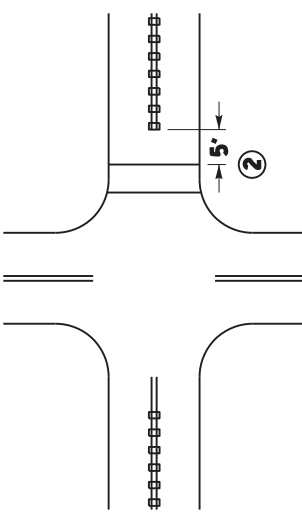


INTERSECTIONS WITH LEFT-TURN LANES ①

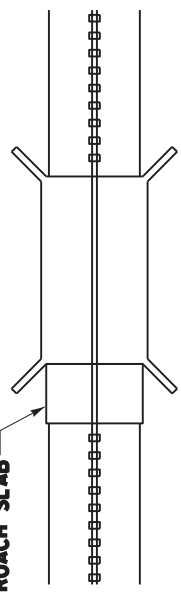


HIGHWAY-RAIL GRADE CROSSINGS ③

INTERSECTIONS WITHOUT LEFT-TURN LANES ①

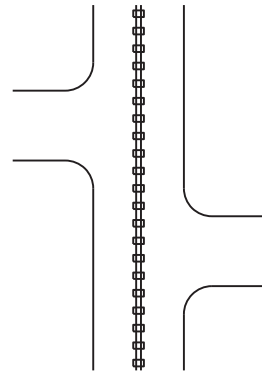


APPROACH SLAB



BRIDGE DECK/APPROACH SLAB ④

DRIVEWAYS/MINOR COMMERCIAL ENTRANCES ⑤



DRAWING NOT TO SCALE

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

KENTUCKY DEPARTMENT OF HIGHWAYS
CENTERLINE RUMBLE STRIPS
SUBMITTED <i>R. Allen</i> 11-23-16 DATE

~ NOTES ~

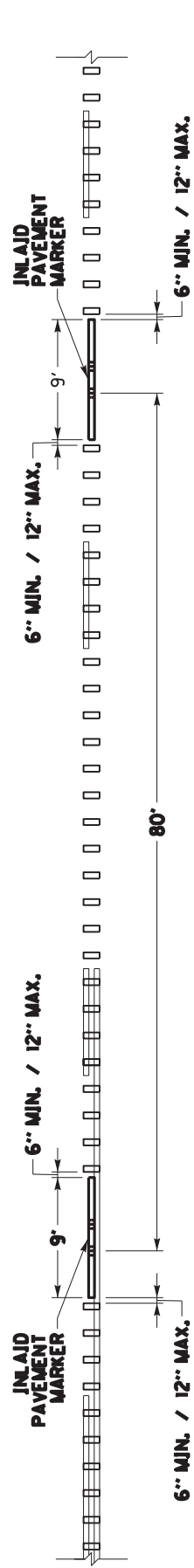
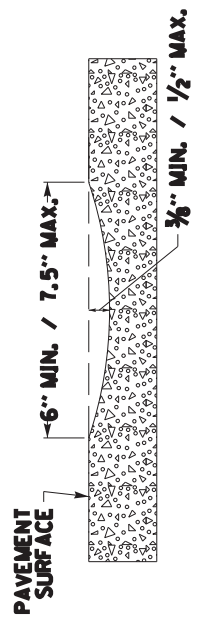
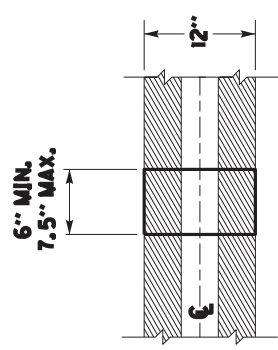
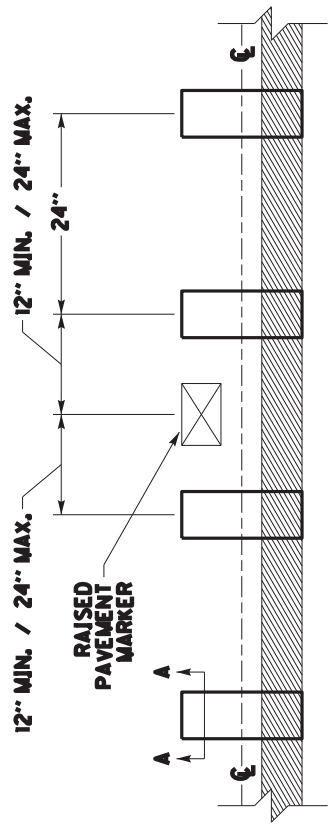
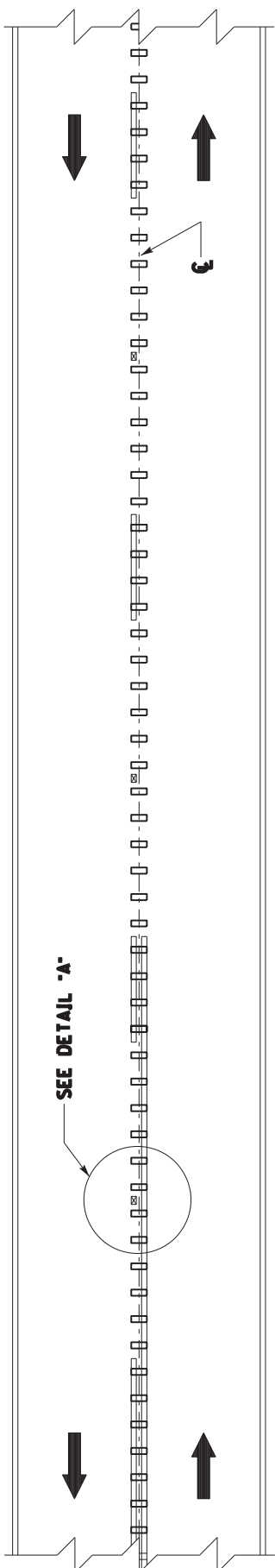
- ① CENTERLINE RUMBLE STRIPS SHALL BE OMITTED THROUGH MAJOR INTERSECTIONS WITH, OR WITHOUT, LEFT-TURN LANES. OMIT THE CENTERLINE RUMBLE STRIPS APPROXIMATELY 5' IN ADVANCE OF THE AREA WHERE THE CENTERLINE PAVEMENT MARKINGS HAVE BEEN OMITTED (NORMALLY WHERE SIDE STREET RADIUS INTERSECTS MAJNLN).
- ② CENTERLINE RUMBLE STRIPS SHALL NOT BE INSTALLED THROUGH MARKED CROSSWALKS. OMIT THE CENTERLINE RUMBLE STRIPS APPROXIMATELY 5' IN ADVANCE OF MARKED CROSSWALKS.
- ③ CENTERLINE RUMBLE STRIPS SHALL NOT BE INSTALLED ACROSS HIGHWAY-RAIL GRADE CROSSINGS.
- ④ CENTERLINE RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS OR APPROACH SLABS.
- ⑤ CENTERLINE RUMBLE STRIPS SHALL BE INSTALLED THROUGH DRIVEWAYS & MINOR COMMERCIAL ENTRANCES.
6. CENTERLINE RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS, OR WHERE LANE WIDTHS ARE LESS THAN 11 FT.

BID ITEM AND UNIT TO BID  
CENTERLINE RUMBLE STRIPS

LF

COUNTY OF	ITEM NO.	SHEET NO. 121

## PLAN VIEW



### DETAIL FOR CENTERLINE RUMBLE STRIPS WITH INLAID PAVEMENT MARKERS

## NOTES

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

**DRAWING NOT TO SCALE**

**USE WITH CUR. STD. DWG.  
TPM-150**

KENTUCKY  
DEPARTMENT OF HIGHWAYS

**CENTERLINE  
RUMBLE STRIPS  
4 INCH STRIPING**

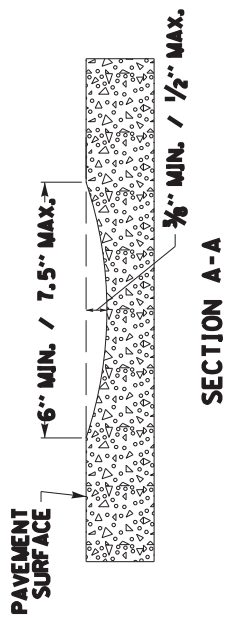
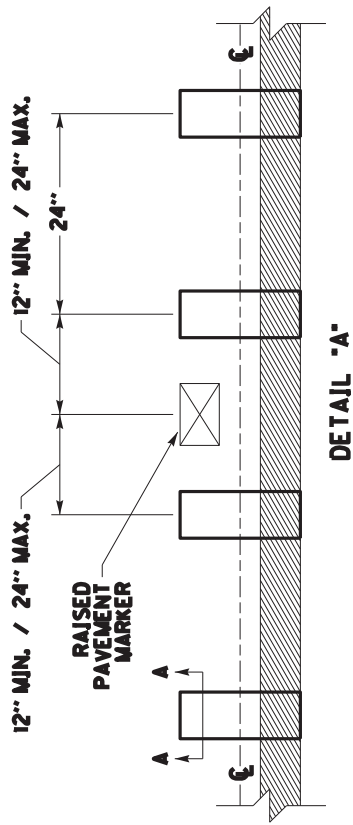
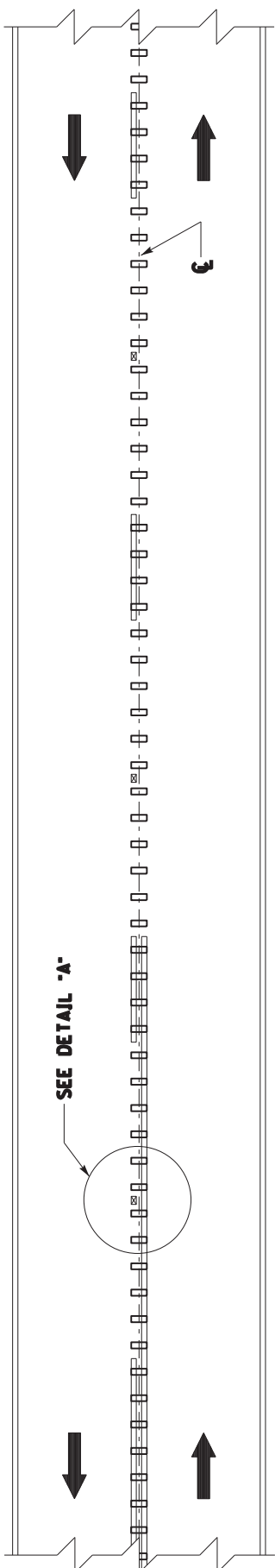
SUBMITTED R. Perry Wolfe 11-23-16 DATE 0036 Page

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## BID ITEM AND UNIT TO BID CENTERLINE RUMBLE STRIPS

COUNTY OF	ITEM NO.	SHEET NO.
		121

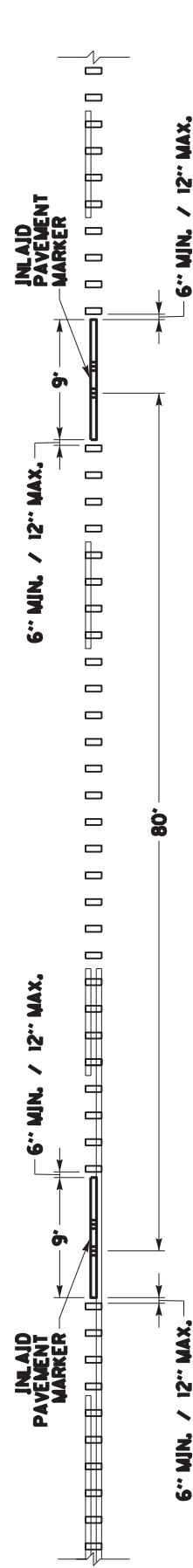
PLAN VIEW



DETAIL "A-A"

SECTION A-A

RUMBLE STRIP DETAIL



DETAIL FOR CENTERLINE RUMBLE STRIPS WITH INLAID PAVEMENT MARKERS

~ NOTES ~

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

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWG.  
TPM-150

KENTUCKY  
DEPARTMENT OF HIGHWAYS

CENTERLINE  
RUMBLE STRIPS  
6 INCH STRIPING

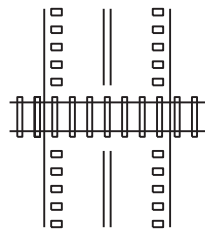
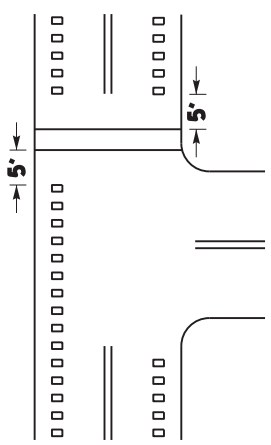
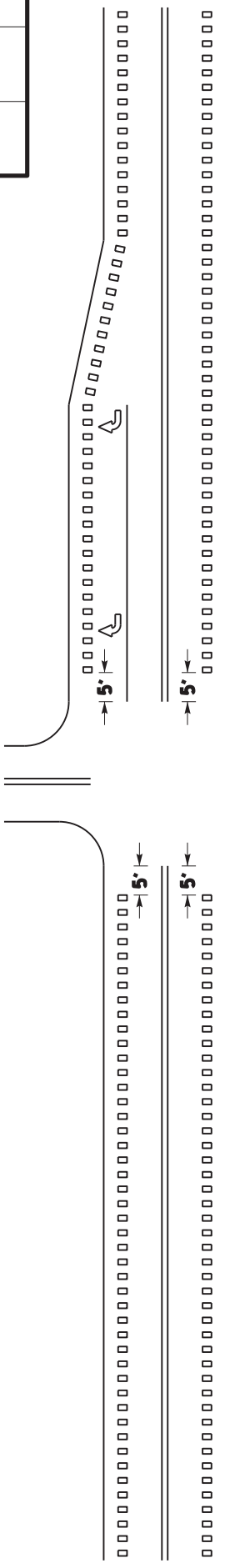
BID ITEM AND UNIT TO BID  
CENTERLINE RUMBLE STRIPS

LF

SUBMITTED *R. [Signature]*  
DATE 11-23-16

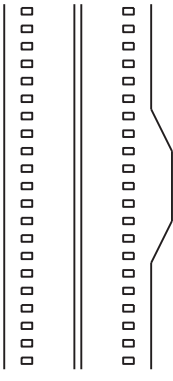
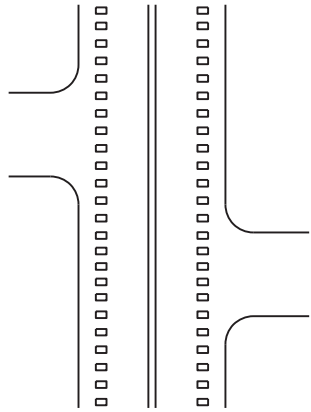
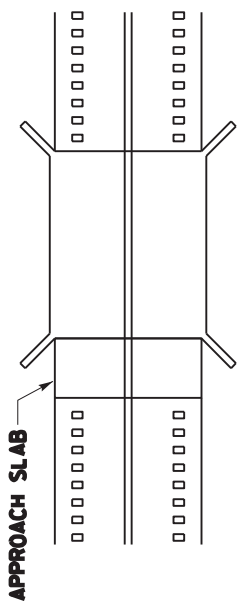
006

COUNTY OF	ITEM NO.	SHEET NO.



MARKED CROSSWALK ②

HIGHWAY-RAIL GRADE CROSSINGS ③



BRIDGE DECK/APPROACH SLAB ④

DRIVEWAYS/MINOR COMMERCIAL ENTRANCES ⑤

MAILBOX TURNOUTS ⑥

NOTES ~

- ① RUMBLE STRIPS SHALL BE OMITTED THROUGH MAJOR INTERSECTIONS WITH, OR WITHOUT, RIGHT-TURN LANES. OMIT RUMBLE STRIPS APPROXIMATELY 5' IN ADVANCE OF THE AREA WHERE EDGE LINE PAVEMENT MARKINGS HAVE BEEN OMITTED NORMALLY WHERE SIDE STREET RADIUS INTERSECTS MAINLINE.
- ② RUMBLE STRIPS SHALL NOT BE INSTALLED THROUGH MARKED CROSSWALKS. OMIT RUMBLE STRIPS APPROXIMATELY 5' IN ADVANCE OF MARKED CROSSWALKS.
- ③ RUMBLE STRIPS SHALL NOT BE INSTALLED ACROSS HIGHWAY-RAIL GRADE CROSSINGS.
- ④ RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS OR APPROACH SLABS.
- ⑤ RUMBLE STRIPS SHALL BE INSTALLED THROUGH DRIVEWAYS & MINOR COMMERCIAL ENTRANCES.
- ⑥ RUMBLE STRIPS SHALL BE INSTALLED THROUGH MAILBOX TURNOUTS.
- 7. RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS.

DRAWING NOT TO SCALE

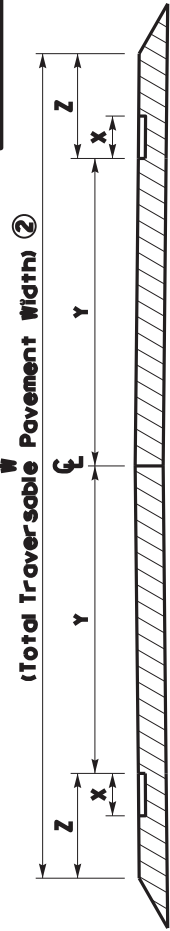
USE WITH SEPIA 006, 007, AND 008

KENTUCKY DEPARTMENT OF HIGHWAYS
SHOULDER & EDGE LINE RUMBLE STRIP DETAILS
SUBMITTED <i>R. Allen</i> 11-23-16 DATE
Page 006

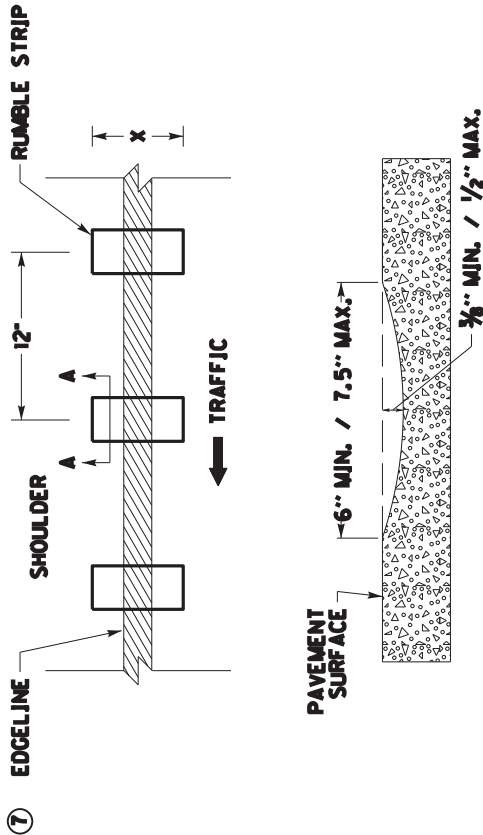
BID ITEMS AND UNIT TO BID  
EDGE LINE RUMBLE STRIPS  
SHOULDER RUMBLE STRIPS

LF  
LF

COUNTY OF	ITEM NO.	SHEET NO.



PAVEMENT CROSS-SECTION



SECTION A-A

PAVEMENT WIDTH (W) ②	RUMBLE LENGTH (X) ⑥	ELRS ONLY		CLRS & ELRS	
		LANE WIDTH (Y) ③	SHOULDER WIDTH (Z) ④	LANE WIDTH (Y) ③	SHOULDER WIDTH (Z) ④
20'	8"	9'	1'	N/A	N/A
21'	8"	9.5'	1'	N/A	N/A
22'	8"	10'	1'	N/A	N/A
23'	8"	10'	1.5'	N/A	N/A
24'	8"	10.5'	1.5'	N/A	N/A
25'	8"	N/A	N/A	11"	1.5'
26'	8"	N/A	N/A	11"	2'
27'	8"	N/A	N/A	11.5'	2'
28'	8"	N/A	N/A	12'	2'
29'	8"	N/A	N/A	12'	2.5'
30'	8"	N/A	N/A	12'	3'
31'	8"	N/A	N/A	12'	3.5'
32'	8"	N/A	N/A	12'	4'
33'	8"	N/A	N/A	12'	4.5'

NOTES

1. EDGELINE RUMBLE STRIPS SHOULD BE INSTALLED ACCORDING TO THE DIMENSIONS PROPOSED ABOVE UNLESS THERE IS AN ENGINEERING BASIS THAT SUPPORTS A CHANGE IN DIMENSION. FOR EXAMPLE, IF THE EXISTING LANE WIDTH IS NARROWER THAN THE LANE WIDTH PROPOSED IN THIS DRAWING AND THE EXISTING SHOULDER PAVEMENT DEPTH IS NOT SUITABLE TO BE CONVERTED INTO A PORTION OF THE PROPOSED LANE WIDTH, THEN THE EXISTING LANE WIDTH SHOULD BE USED INSTEAD OF THE WIDTH PROPOSED IN THIS DRAWING.
2. PAVEMENT WIDTH (W) IS THE TOTAL WIDTH OF TRAVERSABLE PAVEMENT, DO NOT INCLUDE THE WIDTH OF ANY NON-TRAVERSABLE PAVEMENT, SUCH AS PAVEMENT WEDGES, WHEN MEASURING THE PAVEMENT WIDTH (W).
3. LANE WIDTH (Y) TO BE MEASURED FROM CENTER OF ROAD TO LANE SIDE EDGE OF RUMBLE STRIP.
4. PAVED SHOULDER WIDTH (Z) TO BE MEASURED FROM LANE SIDE EDGE OF RUMBLE STRIP TO OUTSIDE EDGE OF TRAVERSABLE PAVEMENT.
5. DISTANCES SHOWN ARE APPROXIMATE. MAINTAIN RUMBLE STRIP DIMENSIONS AND SPACING AS MUCH AS POSSIBLE. IF THE TYPICAL SECTION SHOWS A LANE WIDTH (Y) AND/OR SHOULDER WIDTH (Z) THAT DIFFERS FROM THE WIDTHS LISTED IN THIS DRAWING, THE ENGINEER SHALL DETERMINE THE LANE WIDTH (Y) AND/OR SHOULDER WIDTH (Z) AT THE TIME OF CONSTRUCTION. NOTE: CENTERLINE RUMBLE STRIPS SHOULD BE OMITTED WHEN THE LANE WIDTH (Y) IS LESS THAN 11 FT.
6. RUMBLE LENGTH (X) MAY BE MODIFIED AS THE ENGINEER DIRECTS, IF THE SHOULDER WIDTH (Z) IS EQUAL TO OR LESS THAN THE PROPOSED RUMBLE LENGTH (X).
7. PLACE THE EDGELINE MARKING IN THE CENTER OF THE RUMBLE STRIP.
8. EDGELINE RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS.

BID ITEM AND UNIT TO BID  
EDGELINE RUMBLE STRIPS

LF

DRAWING NOT TO SCALE

USE WITH SEPIA 005

KENTUCKY  
DEPARTMENT OF HIGHWAYS

EDGELINE RUMBLE STRIP  
DETAILS  
TWO LANE ROADWAYS

SUBMITTED *R. [Signature]* 11-23-16  
DATE

Page 006

0110000

**USE WITH SEPJA 005**

**KENTUCKY**

**DEPARTMENT OF HIGHWAYS**

**SHOULDER RUMBLE STRIP  
DETAILS**

**TWO LANE ROADWAYS**

SUBMITTED R. J. W. W. W. 11-23-16 DATE 007

- NOTES •
1. SHOULDER RUMBLE STRIPS SHOULD BE INSTALLED ACCORDING TO THE DIMENSIONS PROPOSED ABOVE UNLESS THERE IS AN ENGINEERING BASIS THAT SUPPORTS A CHANGE IN DIMENSION. FOR EXAMPLE, IF THE EXISTING LANE WIDTH IS NARROWER THAN THE LANE WIDTH PROPOSED IN THIS DRAWING AND THE EXISTING SHOULDER PAVEMENT DEPTH IS NOT SUITABLE TO BE CONVERTED INTO A PORTION OF THE PROPOSED LANE WIDTH, THEN THE EXISTING LANE WIDTH SHOULD BE USED INSTEAD OF THE WIDTH PROPOSED IN THIS DRAWING.
2. PAVEMENT WIDTH (W) IS THE TOTAL WIDTH OF TRAVERSABLE PAVEMENT. DO NOT INCLUDE THE WIDTH OF ANY NON-TRAVERSABLE PAVEMENT, SUCH AS PAVEMENT WEDGES, WHEN MEASURING THE PAVEMENT WIDTH (W).
3. LANE WIDTH (Y) TO BE MEASURED FROM CENTER OF ROAD TO CENTER OF EDGELINE STRIPE.
4. PAVED SHOULDER WIDTH (Z) TO BE MEASURED FROM CENTER OF EDGELINE STRIPE TO OUTSIDE EDGE OF TRAVERSABLE PAVEMENT.
5. DISTANCES SHOWN ARE APPROXIMATE. MAINTAIN RUMBLE STRIP DIMENSIONS AND SPACING AS MUCH AS POSSIBLE. IF THE TYPICAL SECTION SHOWS A LANE WIDTH (Y) AND/OR SHOULDER WIDTH (Z) THAT DIFFERS FROM THE WIDTHS LISTED IN THIS DRAWING, THE ENGINEER SHALL DETERMINE THE LANE WIDTH (Y) AND/OR SHOULDER WIDTH (Z) AT THE TIME OF CONSTRUCTION.  
NOTE: CENTERLINE RUMBLE STRIPS SHOULD BE OMITTED WHEN THE LANE WIDTH (Y) IS LESS THAN 11 FT.
6. RUMBLE LENGTH (X) AND/OR OFFSET DISTANCE MAY BE MODIFIED AS THE ENGINEER DIRECTS. IF THE SHOULDER WIDTH (Z) IS EQUAL TO OR LESS THAN THE COMBINED WIDTH OF THE PROPOSED RUMBLE LENGTH (X) AND OFFSET DISTANCE.
7. ALL SHOULDER RUMBLE STRIPS ALONG SHOULDERS THAT ARE 5' OR WIDER SHOULD INCLUDE BICYCLE GAPS AS DETAILED.
8. SHOULDER RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS.

**BID ITEM AND UNIT TO BID  
SHOULDER RUMBLE STRIPS**



COUNTY OF	ITEM NO.	SHEET NO. 121
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### PAVEMENT CROSS-SECTION (WHEN SRS ARE SPECIFIED)

**PAVEMENT CROSS-SECTION  
(WHEN ELRS ARE SPECIFIED)**

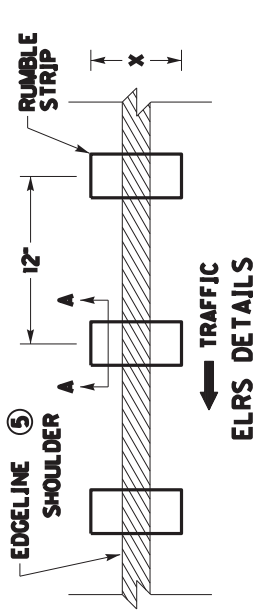
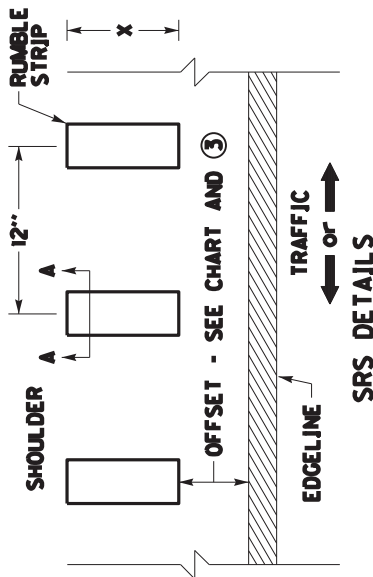


Diagram illustrating the cross-section of a pavement structure, labeled **SECTION A-A**. The diagram shows a vertical cross-section of a pavement surface and underlying aggregate layers. The top layer is labeled **PAVEMENT SURFACE** with a dimension of **6" MIN. / 7.5" MAX.**. Below this is a layer of aggregate material, with a dimension of **3/8" MIN. / 1/2" MAX.** indicated for a specific portion of it.

SHOULDER WIDTH (2) ②	RUMBLE TYPE ①	RUMBLE LENGTH (X) ③	OFFSET ③
>1'	ELRS	8"	N/A
2'	ELRS or SRS	8"	ELRS-N/A SRS-6"
3'	ELRS or SRS	8"	ELRS-N/A SRS-6"
4'	ELRS or SRS	8"	ELRS-N/A SRS-6"
5'	SRS ⑥	8"	6"
6'	SRS ⑥	8"	6"
7'	SRS ⑥	12"	12"
>8'	SRS ⑥	16"	12"

## INSIDE (LEFT) SHOULDER

**TRAFFIC** 

**TRAFFIC** ↑

10' 50' 10'

OUTSIDE (RIGHT) SHOULDER

## BICYCLE GAPS ⑥

② WHEN ELRS ARE SPECIFIED, SHOULDER WIDTH (Z) IS FROM LANE SIDE EDGE OF RUMBLE STRIP TO OUTSIDE EDGE OF TRAVERSABLE PAVEMENT. WHEN SRS ARE SPECIFIED, SHOULDER WIDTH (Z) IS FROM CENTER OF EDGELINE STRIPE TO OUTSIDE EDGE OF TRAVERSABLE PAVEMENT.

**DRAWING NOT TO SCALE**

**USE WITH SEPJA 005**

KENTUCKY

DEPARTMENT OF HIGHWAYS

## RUMBLE STRIP DETAILS MULTI-LANE ROADWAYS AND RAMP

SUBMITTED B. Gillman Wolfe 11-23-16

DATE \_\_\_\_\_ P \_\_\_\_\_

**BID ITEMS AND UNIT TO BID**  
**SHOULDER RUMBLE STRIPS**  
**EDGELINE RUMBLE STRIPS**

22

## NOTES

① FOR MULTI-LANE ROADWAYS, THE RUMBLE TYPE TO BE INSTALLED IS BASED ON SHOULDER WIDTH (Z), FOR SHOULDER WIDTHS OF 2', 3', AND 4' THE RUMBLE TYPE MAY BE SPECIFIED AS EITHER EDGE LINE RUMBLE STRIPS (ELRS) OR SHOULDER RUMBLE STRIPS (SRS). IN THESE SITUATIONS, THE RUMBLE TYPE TO BE INSTALLED WILL BE SPECIFIED IN THE PLANS, PROPOSAL, AND/OR BID ITEMS, OR AS DIRECTED BY THE ENGINEER.

② WHEN ELRS ARE SPECIFIED, SHOULDER WIDTH (Z) IS FROM LANE SIDE EDGE OF RUMBLE STRIP TO OUTSIDE EDGE OF TRAVERSABLE PAVEMENT. WHEN SRS ARE SPECIFIED, SHOULDER WIDTH (Z) IS FROM CENTER OF EDGELINE STRIPE TO OUTSIDE EDGE OF TRAVERSABLE PAVEMENT.

③ RUMBLE LENGTH (X) AND/OR OFFSET DISTANCE MAY BE MODIFIED AS THE ENGINEER DIRECTS, IF THE SHOULDER WIDTH (Z) IS EQUAL TO OR LESS THAN THE COMBINED WIDTH OF THE PROPOSED RUMBLE LENGTH (X) AND OFFSET DISTANCE.

**4. DISTANCES SHOWN ARE APPROXIMATE. MAINTAIN RUMBLE STRIP DIMENSIONS AND SPACING AS MUCH AS POSSIBLE.**

⑤ WHEN ELRS ARE SPECIFIED, THE EDGE LINE MARKING SHALL BE PLACED IN THE CENTER OF THE RUMBLE STRIP.

⑥ SHOULDER RUMBLE STRIPS (SRS) ALONG OUTSIDE (RIGHT) SHOULDERS THAT ARE 5' OR WIDER SHOULD INCLUDE BICYCLE CAPS AS DETAILED. BICYCLE CAPS ARE NOT REQUIRED ON INSIDE (LEFT) SHOULDERS. BICYCLE CAPS SHALL NOT BE USED ON INTERSTATES AND PARKWAYS.

7. RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS, OR WHEN THE SHOULDER WIDTH IS LESS THAN 1 FT.

**BID ITEMS AND UNIT TO BID**  
**SHOULDER RUMBLE STRIPS**  
**EDGELINE RUMBLE STRIPS**

22

**DRAWING NOT TO SCALE**

**USE WITH SEPJA 005**

KENTUCKY

DEPARTMENT OF HIGHWAYS

## RUMBLE STRIP DETAILS MULTI-LANE ROADWAYS AND RAMP

SUBMITTED B. Gillman Wolfe 11-23-16

DATE \_\_\_\_\_ P \_\_\_\_\_

**BID ITEMS AND UNIT TO BID**  
**SHOULDER RUMBLE STRIPS**  
**EDGE LINE RUMBLE STRIPS**

22

## **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)
- III. Payment of Predetermined Minimum Wages
- IV. Statements and Payrolls

#### **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 (between forty and seventy); 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 (between forty and seventy). 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, disability or age (between forty and seventy), except that such notice or advertisement may indicate a preference, limitation, or specification based on religion, or national origin when religion, or national origin 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 (between forty and seventy), 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.

#### **III. PAYMENT OF PREDETERMINED MINIMUM WAGES**

1. These special provisions are supplemented elsewhere in the contract by special provisions which set forth certain predetermined minimum wage rates. The contractor shall pay not less than those rates.

2. The minimum wage determination schedule shall be posted by the contractor, in a manner prescribed by the Department of Highways, at the site of the work in prominent places where it can be easily seen by the workers.

#### **IV. STATEMENTS AND PAYROLLS**

1. All contractors and subcontractors affected by the terms of KRS 337.505 to 337.550 shall keep full and accurate payroll records covering all disbursements of wages to their employees to whom they are required to pay not less than the prevailing rate of wages. Payrolls and basic records relating thereto will be maintained during the course of the work and preserved for a period of one (1) year from the date of completion of this contract.

2. The payroll records shall contain the name, address and social security number of each employee, his correct classification, rate of pay, daily and weekly number of hours worked, itemized deductions made and actual wages paid.

3. The contractor shall make his daily records available at the project site for inspection by the State Department of Highways contracting office or his authorized representative.

Periodic investigations shall be conducted as required to assure compliance with the labor provisions of the contract. Interrogation of employees and officials of the contractor shall be permitted during working hours.

Aggrieved workers, Highway Managers, Assistant District Engineers, Resident Engineers and Project Engineers shall report all complaints and violations to the Division of Contract Procurement.

The contractor shall be notified in writing of apparent violations. The contractor may correct the reported violations and notify the Department of Highways of the action taken or may request an informal hearing. The request for hearing shall be in writing within ten (10) days after receipt of the notice of the reported violation. The contractor may submit

records and information which will aid in determining the true facts relating to the reported violations.

Any person or organization aggrieved by the action taken or the findings established as a result of an informal hearing by the Division of Contract Procurement may request a formal hearing.

4. The wages of labor shall be paid in legal tender of the United States, except that this condition will be considered satisfied if payment is made by a negotiable check, on a solvent bank, which may be cashed readily by the employee in the local community for the full amount, without discount or collection charges of any kind. Where checks are used for payments, the contractor shall make all necessary arrangements for them to be cashed and shall give information regarding such arrangements.

5. No fee of any kind shall be asked or accepted by the contractor or any of his agents from any person as a condition of employment on the project.

6. No laborers shall be charged for any tools used in performing their respective duties except for reasonably avoidable loss or damage thereto.

7. Every employee on the work covered by this contract shall be permitted to lodge, board, and trade where and with whom he elects and neither the contractor nor his agents, nor his employees shall directly or indirectly require as a condition of employment that an employee shall lodge, board or trade at a particular place or with a particular person.

8. Every employee on the project covered by this contract shall be an employee of either the prime contractor or an approved subcontractor.

9. No charge shall be made for any transportation furnished by the contractor or his agents to any person employed on the work.

10. No individual shall be employed as a laborer or mechanic on this contract except on a wage basis, but this shall not be construed to prohibit the rental of teams, trucks or other equipment from individuals.

No Covered employee may be employed on the work except in accordance with the classification set forth in the schedule mentioned above; provided, however, that in the event additional classifications are required, application shall be made by the contractor to the Department of Highways and (1) the Department shall request appropriate classifications and rates from the proper agency, or (2) if there is urgent need for additional classification to avoid undue delay in the work, the contractor may employ such workmen at rates deemed comparable to rates established for similar classifications provided he has made written application through the Department of Highways, addressed to the proper agency, for the supplemental rates. The contractor shall retroactively adjust, upon receipt of the supplemental rates schedule, the wages of any employee paid less than the established rate and may adjust the wages of any employee overpaid.

11. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic in any work-week in which he is employed on such work, to work in excess of eight hours in any calendar day or in excess of forty hours in such work-week unless such laborer or mechanic receives compensation at a rate not less than one and one half times his basic rate of pay for all hours worked in excess of eight hours in any calendar day or in excess of forty hours in such work-week. A laborer, workman or mechanic and an employer may enter into a written agreement or a collective bargaining agreement to work more than eight (8) hours a calendar day but not more than ten (10) hours a calendar day for the straight time hourly rate. This agreement shall be in writing and shall be executed prior to the employee working in excess of eight (8) hours, but not more than ten (10) hours, in any one (1) calendar day.

12. Payments to the contractor may be suspended or withheld due to failure of the contractor to pay any laborer or

mechanic employed or working on the site of the work, all or part of the wages required under the terms of the contract. The Department may suspend or withhold payments only after the contractor has been given written notice of the alleged violation and the contractor has failed to comply with the wage determination of the Department of Highways.

13. Contractors and subcontractors shall comply with the sections of Kentucky Revised Statutes, Chapter 337 relating to contracts for Public Works.

Revised 2-16-95

## 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 (6) provides:

No present or former public servant shall, within six (6) months of 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 the state in matters in which he was directly involved during 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, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved 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.

KRS 11A.040 (8) states:

A former public servant shall not represent a person in a matter before a state agency in which the former public servant was directly involved, 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, Room 136, Capitol Building, 700 Capitol Avenue, Frankfort, Kentucky 40601; telephone (502) 564-7954.

### **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.

KENTUCKY LABOR CABINET  
PREVAILING WAGE DETERMINATION  
CURRENT REVISION  
HIGHWAY CONSTRUCTION LOCALITY NO. II

Determination No. CR-16-II-HWY

Project No.  
Highway

Date of Determination: July 1, 2016

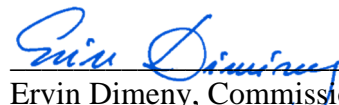
This schedule of the prevailing rate of wages for Locality No. II including the counties of ADAIR, BARREN, BELL, BREATHITT, CASEY, CLAY, CLINTON, CUMBERLAND, ESTILL, FLOYD, GARRARD, GREEN, HARLAN, HART, JACKSON, JOHNSON, KNOTT, KNOX, LAUREL, LAWRENCE, LEE, LESLIE, LETCHER, LINCOLN, MCCREARY, MAGOFFIN, MARTIN, MENIFEE, METCALFE, MONROE, MORGAN, OWSLEY, PERRY, PIKE, POWELL, PULASKI, ROCKCASTLE, RUSSELL, TAYLOR, WAYNE, WHITLEY, and WOLFE has been determined in accordance with the provisions of KRS 337.505 to 337.550. This determination shall be referred to as Prevailing Wage Determination No. CR-15-II-HWY.

The following schedule of rates is to be used for highway construction projects advertised or awarded by the Kentucky Transportation Cabinet. This includes any contracts for the relocation of any utilities or other incidental construction projects advertised or awarded by public authorities as a result of the highway construction project.

Apprentices or trainees shall be permitted to work in accordance with Administrative Regulations. Copies of these regulations will be furnished upon request to any interested person.

Overtime is to be computed at not less than one and one-half (1 1/2) times the indicated BASE RATE for all hours worked in excess of eight (8) hours per day, or in excess of forty (40) hours per week. However, KRS 337.540 permits an employee and employer to agree, in writing, that the employee will be compensated at a straight time base rate for hours worked in excess of eight (8) hours in any one calendar day, but not more than ten (10) hours worked in any one calendar day, if such written agreement is prior to the over eight (8) hours in a calendar day actually being worked, or where provided for in a collective bargaining agreement. The fringe benefit rate is to be paid for each hour worked at a straight time rate for all hours worked. Fringe benefit amounts are applicable for all hours worked except when otherwise noted. Welders will receive rate for craft in which welding is incidental.

No laborer, workman or mechanic shall be paid at a rate less than that of the General Laborer except those classified as bona fide apprentices registered with the Kentucky State Apprenticeship Supervisor unless otherwise specified in this schedule of wage rates.

  
Ervin Dimeny, Commissioner  
Department of Workplace Standards

CR-16-II-HWY  
July 1, 2016

CLASSIFICATIONS

RATE AND FRINGE BENEFITS

BOILERMAKERS:	BASE RATE	\$24.65
	FRINGE BENEFIT	12.94

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BRICKLAYERS:		
Bricklayers:	BASE RATE	\$22.90
	FRINGE BENEFITS	

8.50

Stone Mason:	BASE RATE	\$21.50
	FRINGE BENEFITS	8.50

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CARPENTERS:		
Carpenters:	BASE RATE	\$24.90
	FRINGE BENEFITS	14.50

Piledrivers:	BASE RATE	\$24.55
	FRINGE BENEFITS	14.50

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CEMENT MASONS:	BASE RATE	\$21.25
	FRINGE BENEFITS	8.50

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ELECTRICIANS:	*BASE RATE	\$29.36
	FRINGE BENEFITS	10.55

\*When workmen are required to work from bosum chairs, trusses, stacks, tanks, scaffolds, catwalks, radio and T.V. towers, structural steel (open, unprotected, unfloored raw steel), and bridges or similar hazardous locations where workmen are subject to a direct fall, except where using JLG's and bucket trucks up to 75 feet: Add 25% to workman's base rate for 50 to 75 feet, and add 50% to workman's base rate for over 75 feet.

LINEMAN:	*BASE RATE	\$30.09
	FRINGE BENEFITS	10.94

EQUIPMENT OPERATOR:	*BASE RATE	\$26.90
	FRINGE BENEFITS	10.31

GROUNDSMAN:	*BASE RATE	\$17.79
	FRINGE BENEFITS	8.51

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IRONWORKERS:	BASE RATE	\$ 27.91
	FRINGE BENEFITS	22.00

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CLASSIFICATIONS

RATE AND FRINGE

BENEFITS

LABORERS:

GROUP 1: Aging and curing of concrete (any mode or method), asbestos abatement worker, asphalt plant laborers, asphalt laborers; batch truck dumpers; carpenter tenders, cement mason tenders, cleaning of machines, concrete laborers, demolition laborers, dredging laborers, drill helper, environmental laborer - nuclear, radiation, toxic and hazardous waste – Level D, flagmen, grade checkers, all hand digging and hand back filling, highway marker placers, landscaping laborers, mesh handlers and placers, puddler, railroad laborers, rip-rap and grouters, right of way laborers, sign, guard rail and fence installers (all types), signalmen, sound barrier installer, storm and sanitary sewer laborers, swamper, truck spotters and dumpers, wrecking of concrete forms, general cleanup, tending of setting precast concrete products, applying sealer, epoxies, coating, curing compounds, cure and seal products and preparation on all services of concrete wall expansion materials:

BASE RATE	\$22.75
FRINGE BENEFITS	12.00

GROUP 2: Batter board men (sanitary and storm sewer), brickmason tenders, mortar mixer operator, scaffold builders, burner and welder, bushammers, chain saw operator, concrete saw operators, deckhand scow man, dry cement handlers, environmental laborers – nuclear, radiation, toxic and hazardous waste – Level C, forklift operators for masonry, form setters, green concrete cutting, hand operated grouter and grinder machine operator, jack hammers, lead paint abatement, pavement breakers, paving joint machine, pipe layers – laser operators (non-metallic), plastic pipe fusion, power driven Georgia buggy and wheel barrow, power post hole diggers, precast manhole setters, walk-behind tampers, walk-behind trenchers, sand blasters, concrete chippers, surface grinders, vibrator operators, wagon drillers:

BASE RATE	\$23.00
FRINGE BENEFITS	12.00

GROUP 3: Air track driller (all types), asphalt luteman and rakersm gunnite nozzleman, gunnite operators and mixers, grout pump operator, powderman and blaster, side rail setters, rail paved ditches, screw operators, tunnel laborers (free air), and water blasters, remote control compactors, air lifting, dewatering, water pumps and asphalt sealer applicator:

BASE RATE	\$23.05
FRINGE BENEFITS	12.00

GROUP 4: Caisson workers (free air), cement finishers, environmental laborer – nuclear, radiation, toxic and hazardous waste – Level A and B, miners and drillers (free air), tunnel blasters, and tunnel mockers (free air), directional and horizontal boring, air track drillers (all types), powder man and blasters, troxler and concrete tester if laborer is utilized, concrete vibrator, tv inspection, cleaning tech, GPS tech if performed by a laborer:

BASE RATE	\$23.65
FRINGE BENEFITS	12.00

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CLASSIFICATIONS

RATE AND FRINGE

BENEFITS

OPERATING ENGINEERS:

CLASS A-1:  
NCCCO or OECP Certified or US Coast Guard approved Boat Pilot License; Crane, dragline, hoist (1 drum when used for stack or chimney construction or repair), hoisting engineer (2 or more drums), orangepeel, overhead crane, piledriver, truck crane, tower crane, hydraulic crane, cableway, carry deck, cherry picker, clamshell, derrick, derrick boat, hydraulic boom truck, licensed boat pilot, rough terrain crane, tower cranes (French, German & other types), truck crane:

BASE RATE\$32.21  
FRINGE BENEFITS15.00

CLASS A:  
A-Frame winch truck, auto patrol, backfiller, batcher plant, bituminous paver, bituminous transfer machine, all types of boom cats, bulldozer, cableway, carry-all scoop, carry deck crane, central compressor plant operator, cherry picker, clamshell, concrete mixer (21 cu. Ft. or over), concrete paver, truck mounted concrete pump, core drills, crane, crusher plant, derrick, derrick boat, ditching and trenching machine, dragline, dredge operator, dredge engineer, earth movers, elevating grader and all types of loaders, grade-all guries, heavy equipment robotics operator/mechanic, high lift, hoe type machine, hoist (2 drums or more), hoisting engine, (2 or more drums), horizontal directional drill, hydraulic boom truck, hydrocrane, hyster, KeCal loader, Letourneau, locomotive, mechanic, mechanically operated laser screed, mechanic welder, mucking machine, motor scraper, orange-peel bucket, overhead crane, piledriver, power blade, pumpcrete, push dozer, rock spreader attached to equipment, all rotary drills, roller (bituminous), rough terrain crane, scarifier, scoopmobile, shovel, side boom, subgrader, tailboom, telescoping type forklift, tow or push boat, tower cranes (French, German and other types), tractor shovel and truck crane, tunnel mining machines including moles, shields or similar types of tunnel mining equipment, self-propelled modular transporter, hydro excavator, micro pile machine, remote controlled demolition equipment, milling machine, track hoe, rubber tire back hoe, reclaimer/stabilizer:

BASE RATE\$31.05  
FRINGE BENEFITS15.00

Group B:  
All air compressors (over 900 cu. ft. per min), bituminous mixer, boom type tamping machine, bull float, concrete mixer (under 21 cu ft), dredge engineer, electric vibrator compactor/self-propelled compactor, elevator (on drum or buck hoist), finish machine, firemen, flexplane, forklift (regardless of lift height), form grader, hoist (one drum), joint sealing machine, mechanic helper, outboard motor boat, power sweeper (riding type), roller (rock), ross carrier, skid mounted or trailer mounted concrete pumps, skid steer machine with all attachments, switchman or b5rakeman, throttle valve man, tract air and road widening trencher, tractor (50 hp and over), truck crane oiler, tugger, welding machine, well points, whirley oiler, water pull/water pull/water truck when used for compacting:

BASE RATE\$28.28  
FRINGE BENEFITS15.00

Group B2:  
Greaser on grease facilities servicing heavy equipment, all off road material handling equipment, including articulating dump trucks:

BASE RATE\$28.71  
FRINGE BENEFITS15.00

BENEFITS  
**OPERATING ENGINEERS (CONTINUED):**

Group C:  
Bituminous distributor, cement gun, conveyor, mud jack, paving joint machine, pump, tamping machine, tractors (under 50 H.P.), vibrator, oiler, air compressors (under 200 cu. ft. per min. capacity), concrete saw, burlap and curing machine, hydro seeder, power form handling equipment, deckhand oiler, hydraulic post driver, caisson drill and core drill helper (track or skid mounted), concrete saw, paving joint machine, roller (earth), steermen, tractors (under 50 hp):

BASE RATE	\$27.97
FRINGE BENEFITS	15.00

Operators on cranes with booms 150 ft. and over including jib shall receive \$1.00 above Class A-1 or Class A rate; 250 ft. and over including jib shall receive \$1.00 above Class A-1 or Class A rate. All cranes with the length of the boom in combination with length of the piling leads equals or exceeds 150 ft. shall receive \$1.00 above Class A-1 or Class A.

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**PAINTERS:**

Brush & Roller:	BASE RATE	\$24.74
	FRINGE BENEFITS	9.54

Spray:	BASE RATE	\$25.24
	FRINGE BENEFITS	9.54

Sand Blasting & Hopper Tender:	BASE RATE	
\$24.49	FRINGE BENEFITS	9.54

Bridges (when highest point of clearance is 60 feet or more):	BASE RATE	\$24.99
	FRINGE BENEFITS	9.54

Sand Blasting, Hopper Tender (bridges when highest point of clearance is 60 feet or more):	BASE RATE	\$25.49
	FRINGE BENEFITS	9.54

Bridge/Equipment Tender and or Containment Builder:	BASE RATE	\$21.33
	FRINGE BENEFITS	9.54

Bridge Quality Control:	BASE RATE	\$16.45
	FRINGE BENEFITS	9.54

Lead Abatement:	BASE RATE	\$24.99
	FRINGE BENEFITS	9.54

----- -- <b>PLUMBERS:</b>	BASE RATE	\$22.52
	FRINGE BENEFITS	7.80

----- - <b>SHEET METAL:</b>	BASE RATE	\$20.40
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FRINGE BENEFITS7.80

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CLASSIFICATIONS

BENEFITS

RATE

AND

FRINGE

TRUCK DRIVERS:

Truck helper and warehouseman:	BASE RATE	\$23.20
	FRINGE BENEFITS	14.50
Driver, winch truck and A-Frame when used in transporting materials:	BASE RATE	\$23.30
	FRINGE BENEFITS	14.50
Driver, (semi-trailer or pole trailer), driver (dump truck, tandem axle), driver of distributor:	BASE RATE	\$23.40
	FRINGE BENEFITS	14.50
Driver on mixer trucks (all types):	BASE RATE	\$23.45
	FRINGE BENEFITS	14.50
Truck mechanic:	BASE RATE	\$23.50
	FRINGE BENEFITS	14.50
Driver (3 tons and under), tire changer and truck mechanic helper:	BASE RATE	\$23.53
	FRINGE BENEFITS	14.50
Driver on pavement breakers:	BASE RATE	\$23.55
	FRINGE BENEFITS	14.50
Driver (over 3 tons), driver (truck mounted rotary drill):	BASE RATE	\$23.74
	FRINGE BENEFITS	14.50
Driver, Euclid and other heavy earth moving equipment and Low Boy:	BASE RATE	\$24.31
	FRINGE BENEFITS	14.50
Greaser on greasing facilities:	BASE RATE	\$24.40
	FRINGE BENEFITS	14.50

END OF DOCUMENT

**Kentucky Determination No. CR-16-II-HWY dated July 1, 2016**

Fringe benefit amounts are applicable for all hours worked except when otherwise noted.

No laborer, workman or mechanic shall be paid at a rate less than that of the General Laborer except those classified as bona fide apprentices registered with the Kentucky State Apprenticeship Supervisor unless otherwise specified in this schedule of wage rates.

These rates are listed pursuant to the Kentucky Determination No. CR-16-II-HWY dated July 1, 2016. Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U. S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U. S. Bureau of Apprenticeship and Training.

The contract or shall submit to the Contracting Officer, written evidence of the established apprenticeship-journeyman ratios and wage rates in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

**TO: EMPLOYERS/EMPLOYEES**

**PREVAILING WAGE SCHEDULE:**

The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the numbers of hours worked in each classification at the prescribed hourly base rate.

**OVERTIME:**

Overtime is to be paid after an employee works eight (8) hours a day or forty (40) hours a week, whichever gives the employee the greater wage. At least time and one-half the base rate is required for all overtime. A laborer, workman or mechanic and an employer may enter into a written agreement or a collective bargaining agreement to work more than eight (8) hours a calendar day but not more than ten (10) hours a calendar day for the straight time hourly rate. Wage violations or questions should be directed to the designated Engineer or to the undersigned.

Director  
Division of Construction Procurement  
Frankfort, Kentucky 40622  
502-564-3500

## **PART IV**

## **INSURANCE**

## INSURANCE

The Contractor shall procure and maintain the following insurance in addition to the insurance required by law:

- 1) Commercial General Liability-Occurrence form – not less than \$2,000,000 General aggregate, \$2,000,000 Products & Completed Aggregate, \$1,000,000 Personal & Advertising, \$1,000,000 each occurrence.
- 2) Automobile Liability- \$1,000,000 per accident
- 3) Employers Liability:
  - a) \$100,000 Each Accident Bodily Injury
  - b) \$500,000 Policy limit Bodily Injury by Disease
  - c) \$100,000 Each Employee Bodily Injury by Disease
- 4) The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
  - a) "policy contains no deductible clauses."
  - b) "policy contains \_\_\_\_\_ (amount) deductible property damage clause but company will pay claim and collect the deductible from the insured."
- 5) KENTUCKY WORKMEN'S COMPENSATION INSURANCE. The contractor shall furnish evidence of coverage of all his employees or give evidence of self-insurance by submitting a copy of a certificate issued by the Workmen's Compensation Board.

The cost of insurance is incidental to all contract items. All subcontractors must meet the same minimum insurance requirements.

**PART V**

**BID ITEMS**



Section: 0001 - ROADWAY BELL

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	06520		PAVE STRIPING-WB PAINT-4 IN W MP ROUTES	620.28	MILE		\$	
0020	06520		PAVE STRIPING-WB PAINT-4 IN W RS ROUTES	179.06	MILE		\$	
0030	06521		PAVE STRIPING-WB PAINT-4 IN Y MP ROUTES	781.57	MILE		\$	
0040	06521		PAVE STRIPING-WB PAINT-4 IN Y RS ROUTES	1,277.41	MILE		\$	
0050	23140EN		DURABLE WATERBORNE MARKING-6 IN W MP ROUTES	57.47	MILE		\$	
0060	23141EN		DURABLE WATERBORNE MARKING-6 IN Y MP ROUTES	118.45	MILE		\$	

Section: 0002 - OVERALL CONTRACT ITEMS

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0070	02572		QUALITY CONTROL	1.00	LS		\$	
0080	20411ED		LAW ENFORCEMENT OFFICER	100.00	HOURL		\$	
0090	21741NC		MAINTAIN & CONTROL TRAFFIC	1.00	EACH		\$	
0100	22664EN		WATER BLASTING EXISTING STRIPE	1,000.00	LF		\$	

Section: 0003 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0110	02569		DEMOBILIZATION	1.00	LS		\$	