



CALL NO. 320

CONTRACT ID. 092233

BREATHITT COUNTY

FED/STATE PROJECT NUMBER FD51 013 3324 000-003

DESCRIPTION RILEY BRANCH ROAD 14 SITES (KY 3324)

WORK TYPE FLOOD REPAIR FOR FEMA

PRIMARY COMPLETION DATE 11/30/2009

LETTING DATE: July 24, 2009

Sealed Bids will be received in the Division of Construction Procurement and/or the Auditorium located on the 1st floor of the Transportation Cabinet Office Building until 10:00 AM EASTERN DAYLIGHT TIME July 24, 2009. Bids will be publicly opened and read at 10:00 AM EASTERN DAYLIGHT TIME.

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

(Check guaranty submitted: Cashier's Check Certified Check Bid Bond)

BID BONDS WHEN SUBMITTED WILL BE RETAINED WITH THE PROPOSAL

DBE General Plan Included

BID

PROPOSAL ISSUED TO: _____

SPECIMEN

Address City State Zip

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PART I
SCOPE OF WORK

CONTRACT ID - 092233

ADMINISTRATIVE DISTRICT - 10

PROJECT(S) IDENTIFICATION AND DESCRIPTION:

COUNTY - BREATHITT

PCN - MP01333240901

FD51 013 3324 000-003

RILEY BRANCH ROAD 14 SITES (KY 3324) FROM KY 476 (MP 0.000) EXTENDING EAST TO END OF
STATE MAINTENANCE (MP 2.251), A DISTANCE OF 2.25 MILES. FLOOD REPAIR FOR FEMA.
GEOGRAPHIC COORDINATES LATITUDE 37^28'58" LONGITUDE 83^17'17"

AVERAGE DAILY TRAFFIC - 279

AVERAGE MAINLINE WIDTH - 16.0 FEET

COMPLETION DATE(S):

COMPLETION DATE - November 30, 2009

APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

Bidder must use the Department's Expedite Bidding Program available on the Internet web site of the Department of Highways, Division of Construction Procurement. (www.transportation.ky.gov/contract)

The Bidder must download the bid file located on the web site to prepare a bid packet for submission to the Department. The bidder must include the completed bid packet printed from the Program along with the disk created by said program.

JOINT VENTURE BIDDING

Joint Venture bidding is permissible. However, both companies MUST purchase a bidding proposal. Either proposal may be submitted but must contain the company names and signatures of both parties where required. 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 is advised that the Underground Facility Damage Protection Act of 1994, became law January 1, 1995. It is the contractor's responsibility to determine the impact of the act regarding this project, and take all steps necessary to be in compliance with the provision of the act.

01/01/2009

ASPHALT MIXTURE

The rate of application for all asphalt mixtures shall be estimated at 110 lbs/sy per inch of depth, unless otherwise noted.

OPTION B

The Contractor is advised that the compaction of asphalt mixtures furnished to this project will be accepted by OPTION B in accordance with Section 402 and Section 403 of the current Standard Specification.

SPECIAL NOTES
SLIDE REPAIR PROJECT

I. DESCRIPTION

This work shall be performed in accordance with the Department's Current Standard Specifications and applicable Special Provisions except as hereafter specified. Article references are to the Standard Specifications.

This work shall consist of: (1) Clear and grub, install temporary erosion control, temporary pollution control, seed and protect disturbed area, and final dress area, as needed; (2) Do necessary excavation; (3) Replace and extend Cross drain on KY 3324; (4) Furnish and install railroad rails; (5) **Install wall cribbing furnished by the Department of Highways**; (6) Excavate, place geotextile material, and backfill the area around the railroad rails and on the fill slope; (7) Reconstruct shoulder area; (8) Furnish and Install guardrail and guardrail end treatments, *install guardrail and end treatments, as required*; (9) Maintain and control traffic; and (10) any other work as specified by this contract.

II. MATERIALS

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

A. Railroad Rails. Use recycled (used) railroad rails classified with a nominal weight of 130 lb./yd (pounds per yard) size or greater. Use only visibly straight recycled railroad rails with no splices. The Engineer will verify rail nominal weights (Manufacturer's Stamp with lb./yd, date, etc.). Provide Certification for nominal weight if the Manufacturer's Stamp is unidentifiable.

B. Wall Cribbing. Use wall cribbing: recycled (used) steel "W" beam guardrail. **Cribbing material will furnished by the Department of Highways.** Wall cribbing will be located at the *Department of Highways Breathitt County Maintenance Facility.*

C. Backfill material for Drilled Sockets. Use the following for backfill material for Drilled sockets: concrete; free flowing sand; pea gravel, crushed limestone, or crushed sandstone. Use backfill material with one hundred percent (100%) passing a one-half (1/2) inch sieve. Do not use auger tailings. Engineer will use visual inspection and/or material testing, as applicable to determine acceptability.

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SLIDE REPAIR PROJECT
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- D. Fill Material for CRIBBING.** Use one of the following backfill materials: Kentucky Aggregate Gradation No. 2's or larger. Backfill material shall meet requirements of Section 805. The Engineer will use visual inspection and/or material testing, as applicable to determine acceptability.
- E. DGA.** Furnish Dense Graded Aggregate as per Section 805. Do not use Crushed Stone Base.
- F. Final Dressing, Seed and Protection.** Use Seed Mixture No. 1.
- G. Silt Trap A, B or C.** Furnish Silt traps as per Std Drawings and Section 213.
- H. Silt Fence.** Furnish Temporary Silt Fence as per Section 213 and Section 827.
- I. Geotextile Fabric.** Furnish Geotextile Fabric Type IV as per Section 843.
- J. Guardrail Posts.** Steel Guardrail posts are required. No alternate is allowed.
- K. 18" Culvert Pipe.** Fill Height is approximately 2 Ft. pH is medium. Furnish 18 inch Circular Culvert pipe, Culvert, Entrance, Storm Sewer Pipe types and Cover Heights.
- L. Pipe Backfill.** Furnish flowable fill for pipe backfill.
- K. Pipe Bedding.** Furnish No. 8 aggregate or 9M aggregate for pipe bedding material as per Section 804.

III. CONSTRUCTION METHODS

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Staking.** Establish proper slope elevations and ratios, shoulder widths, existing ditch profile and final ditch profile to insure positive drainage. Be responsible for field layout. Positive drainage is required upon completion of the project and is the responsibility of the Contractor.
- C. Site Preparation.** Prepare flood repair sites. This includes clearing and grubbing, if necessary. Remove all obstructions. Sweep and remove debris, if necessary. The area to be cleared has not been measured by the Department and the bidder must draw his own conclusions. Construct silt checks and Temporary silt fence at locations

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directed by the engineer. The Engineer shall approve all site preparation. The Department will not make direct payment for site preparation.

D. Installation of Railroad Rails. See attached summary for site locations and estimated quantities of materials required. Contrary to the attached tables and drawings for drilled railroad rails, Install only 1 Row of RR Rails on 3 foot centers unless otherwise shown on the summary or mentioned in these notes. The depth to rock shown on the location summary is approximate. The embankment failures at these sites are caused by erosion.

NOTE TO ENGINEER AND CONTRACTOR: ABSOLUTELY NO CHANGE IN SCOPE OF WORK OR INCREASE IN QUANTITIES WILL BE ALLOWED ON THIS PROJECT WITHOUT PRIOR WRITTEN APPROVAL FROM THE TEBM (Transportation Engineering Branch Manager) FOR OPERATIONS OR HIS REPRESENTATIVE IN THE DISTRICT OFFICE.

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

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

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

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

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

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

Crib any exposed portion of railroad rail before placing backfill.

E. *Excavation and Backfill for Embankment Repair.* Excavate each embankment/flood repair area to provide a platform for drilling the used railroad rails, if necessary. Excavate for roadway ditches as necessary for slope, shoulder and pavement drainage. Place geotextile fabric, then construct embankment behind railroad rails, cribbing and on slope, as per Section 206. Construct embankment up to the approximate existing pavement elevation.

Reconstruct the shoulder area with DGA up to the approximate existing elevation and width of the surrounding typical section or to a minimum width of 2 Feet at each slide location. Do not pond water on the shoulder area or at the shoulder edge. Reconstruct the shoulder before installing guardrail. Asphalt paving will not be part of the contract. If necessary, asphalt paving will be done by state forces at a later date.

DO NOT USE EXCAVATED MATERIAL FROM THE SITE AS FILL MATERIAL.

Excess excavation may be wasted at sites on the right-of-way, **ONLY** if approved by the Engineer. Material may **NOT** be wasted in flood prone areas or in streams.

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

F. *Installation of Wall Cribbing.* Install Cribbing as shown on Figure 1 or Figure 2 as slide location dictates or as directed by the Engineer. Extend wall cribbing 2 feet below the existing ground line. If bedded rock is encountered, install the cribbing to the bedded rock only. If necessary, the Engineer will direct changes to this procedure. Furnish all labor and equipment to deliver and install wall cribbing on the recycled (used) railroad rail piling. Wall cribbing shall be lapped, bolted, and attached solid to the drilled railroad rails.

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G. Culvert Pipe. Remove the existing pipe and dispose of it off the right of way at a site approved by the Engineer and obtained by the Contractor at no additional cost to the Department. Removal and proper disposal of the existing pipe will be incidental the bid item "Culvert Pipe". Construct the culvert pipe as per Section 701. The Contractor shall be responsible for field layout and survey of the proposed structure. The final centerline, flow lines and skew shall be approved by the Engineer prior to placing backfill. Locate the new pipe at the same location as the existing pipe that is removed unless directed otherwise by the Engineer.

Replace 30 LF of 18" Culvert Pipe on KY 3324 at MILEPOINT 1.221. Replace 18 inch circular culvert Pipes at site shown on the attached Quantity summary as per Section 701.03.10. Replace the existing pipes using 1 of 3 alternate pipe materials. See each alternate in the applicable Standard Drawings. Select coatings, linings, and pavings for Non-Structural Plate Pipe from Standard Drawing RDI-035-01. Locate the new pipe at the same location as the existing pipe that is removed unless directed otherwise by the Engineer. Remove the existing pipe and replace it with the new pipe in a manner such that a maximum of one (1) calendar day elapses.

H. Pipe Bedding and Backfill Requirements. Furnish and install bedding and backfill for the pipe section as per Standard Drawing RDI-020-07, except that flowable fill will be used as backfill. No direct payment will be made by the Department for furnishing and placing the flowable fill for pipe backfill. Headwalls for the culvert pipe will not be required. Positive drainage is required upon completion of the project and is the responsibility of the Contractor.

Water runoff from the surrounding area shall be directed away from the reconstructed slopes/slide area as directed by the Engineer. Positive drainage of slopes and ditches shall be required at all times during and upon completion of construction.

Use DGA as embankment in place from the asphalt base elevation up to the existing pavement elevation. Asphalt paving will not be part of the contract. Any necessary asphalt paving will be done by State Forces later.

I. Shoulder Reconstruction. Use DGA to reconstruct the shoulder area up to the approximate existing elevation and width of the surrounding typical section or to a minimum width of **2 Feet** at each slide location. ***The DGA will not be paid separately. DGA will be incidental to the bid item "Excavation and Backfill".*** Do not pond water on the shoulder area or at the shoulder edge. Reconstruct the shoulder before installing guardrail.

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J. Final Dressing, Seeding and Protection. Apply Final Dressing; Class A to all disturbed areas, both on and off the right-of-way. Sow with Seed Mixture No. 1. The Department will NOT make direct payment for final dressing, or seeding and protection.

K. Installation of Guardrail systems. Furnish Guardrail systems as per Section 719. See attached summary for proposed guardrail sites. Guardrail locations listed are approximate only. Locations will be field adjusted as directed by the Engineer. Construct radii at entrances and road intersections as per applicable Standard Drawings.

When installing guardrail the blunt end shall NOT be left exposed where it would be hazardous to the public. When it is not practical to complete the construction of the rail or the permanent end treatments first, the Engineer may require a temporary end of connecting at least 25 feet of rail to the last post, and by slightly flaring, and burying the end of the rail completely into the existing shoulder. If left overnight, a drum with bridge panel shall be placed in advance of the guardrail end and maintained during use. The cost of the temporary end, including the barrier and panel, shall be included in the unit price for "Guardrail, Steel "W" Beam, Single Face".

L. On-Site Inspection. Each Contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting his bid and shall thoroughly familiarize themselves with the existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made.

M. Right-of-Way Limits. Right-of-Way and easement limits shown on the plans are approximate only. The Contractor shall make every effort to limit his activities to obvious right-of-way and permanent or temporary easements and shall be responsible for encroachments onto private lands.

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

O. Utility Clearance *NOTICE: Utility locations are not shown on plans or in the proposal for this project and have not been located by the Department. Locate all underground, above ground and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Notify the Engineer and the utility owner(s) immediately when it is discovered or anticipated that any utility conflict could delay the Contractor's operations. Do not disturb existing overhead or underground utilities. Be responsible for repairing all utility damage that occurs as a result of the work It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated*

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and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Working days will not be charged for those days on which work on the controlling item is delayed, as provided in the Specifications. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified. Comply with applicable sections of Chapter 107.

IV. METHOD OF MEASUREMENT

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

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

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

D. Excavation and Backfill. The Department will measure this item in cubic yards. The Department will measure the quantity in the field as per Section 204 (Roadway Excavation) or other accepted methods of measurement as directed by the Engineer. The following items will not be measured directly by the Department: Site Preparation, Clearing and Grubbing, Seeding and Protection, Final Dressing, Temporary Erosion Control, Temporary Pollution Control, Waste removal, and Disposal, but will be incidental to "Excavation and Backfill" as applicable to each project.

E. Site Preparation, Clearing and Grubbing, Seeding and Protection, Fertilizer, Temporary Erosion Control, Temporary Pollution Control, Waste Disposal. The Department will NOT MEASURE for payment these items. They include Site Preparation, Clearing and Grubbing, Seeding and Protection, Final Dressing, Temporary Erosion Control, Temporary Pollution Control, Waste Disposal, and other items not expressly bid as individual items. These items shall be incidental to the bid item "Excavation and Backfill" as applicable to each project.

F. Culvert Pipe, 18 Inch. The Department will measure the completed and accepted quantities of the pipe bid item as per Section 701. Removal and proper disposal of the existing pipe will not be measured.

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V. BASIS OF PAYMENT

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

B. Railroad Rail-Drilled. The Department will pay for the completed and accepted quantities under the bid item of "Railroad Rail-Drilled". The Department will consider payment full compensation for all work required in these notes and elsewhere in the Contract.

C. Excavation and Backfill. The Department will pay for the completed and accepted quantities under the bid item: Excavation and Backfill. Payment will be based on quantity measured in the field. The Department will consider payment full compensation for all work required on the project. The following items are incidental to "Excavation and Backfill" and will not be measured directly by the Department. These items include Site Preparation, Clearing and Grubbing, Seeding and Protection, Final Dressing, Temporary Erosion Control, Temporary Pollution Control, Waste removal and Disposal.

D. Wall Cribbing. The Department will pay for the completed and accepted quantities under the bid item of "Wall Cribbing". Payment will be based on the quantity installed in the field. The Department will not make separate payment for the hauling of the wall cribbing to the slide site. The Department will consider payment full compensation for all work required on the project.

E. Site Preparation, Clearing and Grubbing, Seeding and Protection, Fertilizer, Temporary Erosion Control, Temporary Pollution Control, Waste Disposal. The Department will NOT make direct payment for operations for which bid items do not exist. They include items listed here: Site Preparation, Clearing and Grubbing, Seeding and Protection, Final Dressing, Temporary Erosion Control, Temporary Pollution Control, Waste removal and Disposal. These activities shall be incidental to the bid item "Excavation and Backfill" as applicable to each project.

F. Culvert Pipe, 18 Inch. The Department will pay for the completed and accepted quantities of the pipe bid item as per Section 701. The Department will NOT make direct payment for any necessary pipe removal. See Section 701.04.09.

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REFERENCES

1. Kentucky Transportation Cabinet, Department of Highways, Current Standard Specifications for Road and Bridge Construction.
2. Manual On Uniform Traffic Control Devices.

SPECIAL PROVISION FOR WASTE AND BORROW SITES

The contractor is advised that it is their responsibility to gain U.S. Army Corp of Engineer's approval before utilizing a waste or borrow site that involves "Waters of the United States". "Waters of the United States" are defined as perennial or intermittent streams, ponds or wetlands. Ephemeral streams are also considered jurisdictional waters, and are typically dry except during rainfall, but have a defined drainage channel. Questions concerning any potential impacts to "Waters..." should be brought to the attention of the appropriate District Office for the Corps of Engineers for a determination, prior to disturbance. Any fees associated with obtaining approval from the U.S. Army Corp of Engineer or other appropriate regulatory agencies for waste and borrow sites is the responsibility of the contractor.

01/01/2009

TRAFFIC CONTROL PLAN SLIDE REPAIR PROJECT

TRAFFIC CONTROL GENERAL

Except as provided herein, traffic shall be maintained in accordance with the 2004 Standard Specifications and the Standard Drawings, current editions. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic".

Contrary to Section 106.01, traffic control devices used on this project may be new, or used in like new condition, at the beginning of the work and maintained in like new condition until completion of the work.

PROJECT PHASING & CONSTRUCTION PROCEDURES

At this time, no restrictions are anticipated. At the discretion of the Engineer, additional days and hours may be added when lane closures will not be allowed.

Road may be closed to through traffic during construction; local traffic shall be maintained (See Standard drawing TTC-105). If traffic should be stopped due to construction operations, and a school bus on an official run arrives on the scene, the Contractor shall make provisions for the passage of the bus as quickly as possible.

If the work site conditions require that all traffic be stopped while the drilling operation is in progress, traffic may be stopped for the length of time required to drill and set one rail or a maximum of 15 minutes unless an emergency vehicle or a school bus is present in the traffic stream or comes upon the work site. All waiting traffic shall be allowed to pass before starting the next hole. If an emergency vehicle or school bus is present in the queue, stop drilling and allow traffic to pass immediately.

BARRICADES

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

TRAFFIC CONTROL PLAN
SLIDE REPAIR PROJECT
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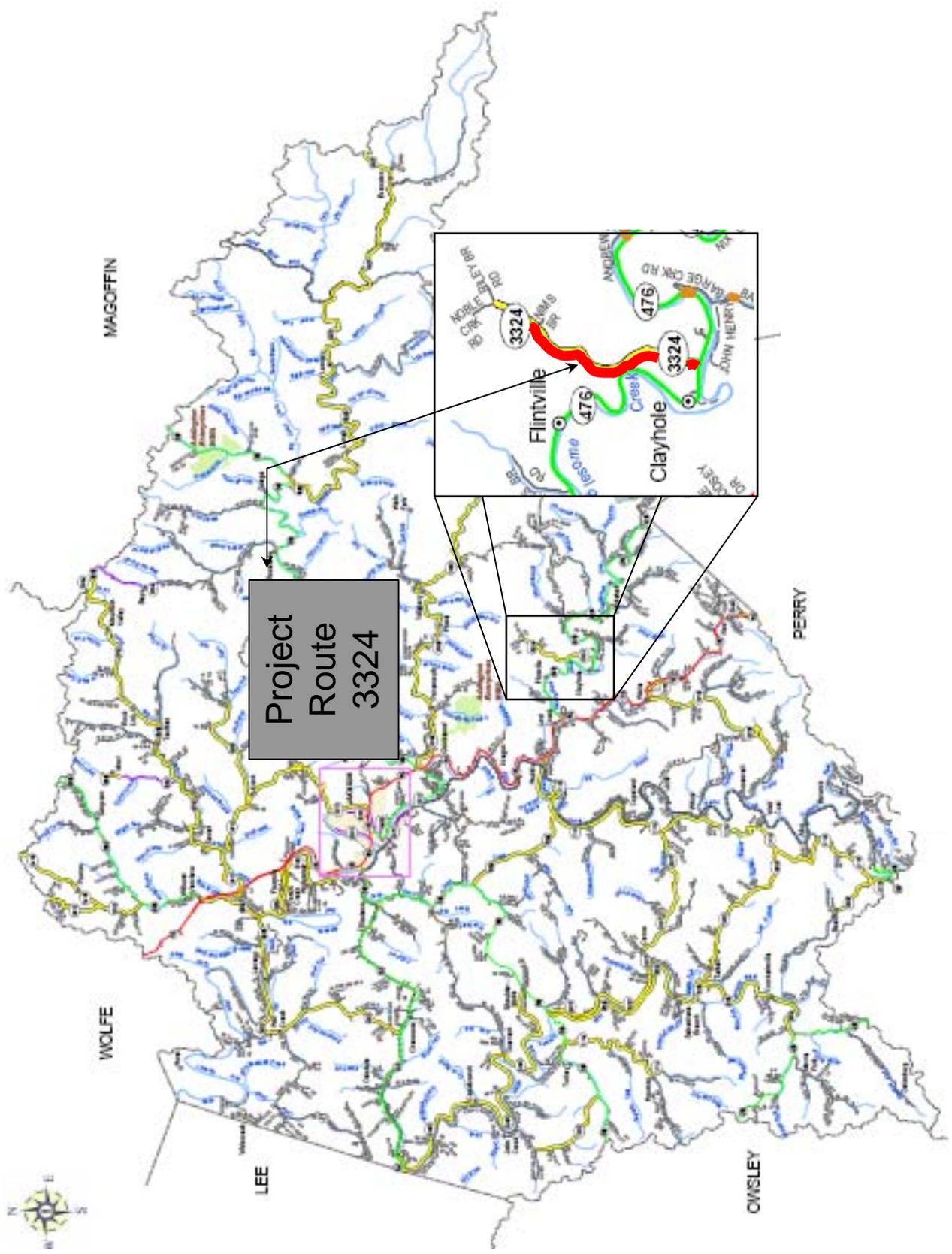
PAVEMENT EDGE DROP-OFFS

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

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

Less than or equal to 2" - No protection required. Warning signs should be placed in advance and throughout the drop-off area.

Greater than 2" - Place plastic drums, vertical panels, or barricades every 50 feet. Wedge with asphalt mixture for pavement wedge with a 1:1 or flatter slope in daylight hours, or 3:1 or flatter slope during nighttime hours, when work is not active in the drop-off area.



KY 3324

Site	Mile Point	Cribbing Length	Cribbing Depth	Excavation Width	Depth to Rock	Number of Rows	Rail Spacing (FT)	Guardrail Length	Cribbing Amount (SQ FT)	Steel (FT)	Excav. & Backfill	Type IV Geotextile Fabric
1	0.477	40	3	3	7	1	3	0	120	147	14	35.56
2	0.846	150	3	3	7	1	3	0	450	525	50	133.33
3	0.884	25	3	3	7	1	3	0	75	94.5	9	22.22
4	1.08	950	3	3	7	1	3	0	2850	3328.5	317	844.44
5	1.221	20	3	3	7	1	3	0	60	73.5	7	17.78
6	1.26	35	3	3	7	1	3	0	105	126	12	31.11
7	1.364	30	3	3	7	1	3	0	90	105	10	26.67
8	1.462	15	3	3	7	1	3	0	45	52.5	5	13.33
9	1.478	50	3	3	7	1	3	0	150	178.5	17	44.44
10	1.558	40	3	3	7	1	3	0	120	147	14	35.56
11	1.596	150	3	3	7	1	3	0	450	525	50	133.33
12	1.649	215	3	3	7	1	3	0	645	756	72	191.11
13	1.739	100	3	3	7	1	3	0	300	357	34	88.89
14	2.169	25	3	3	7	1	3	0	75	94.5	9	22.22
TOTALS										6510	620	1640.00

No sites will require guardrail due to embankment height

Quantity Summary Sheet

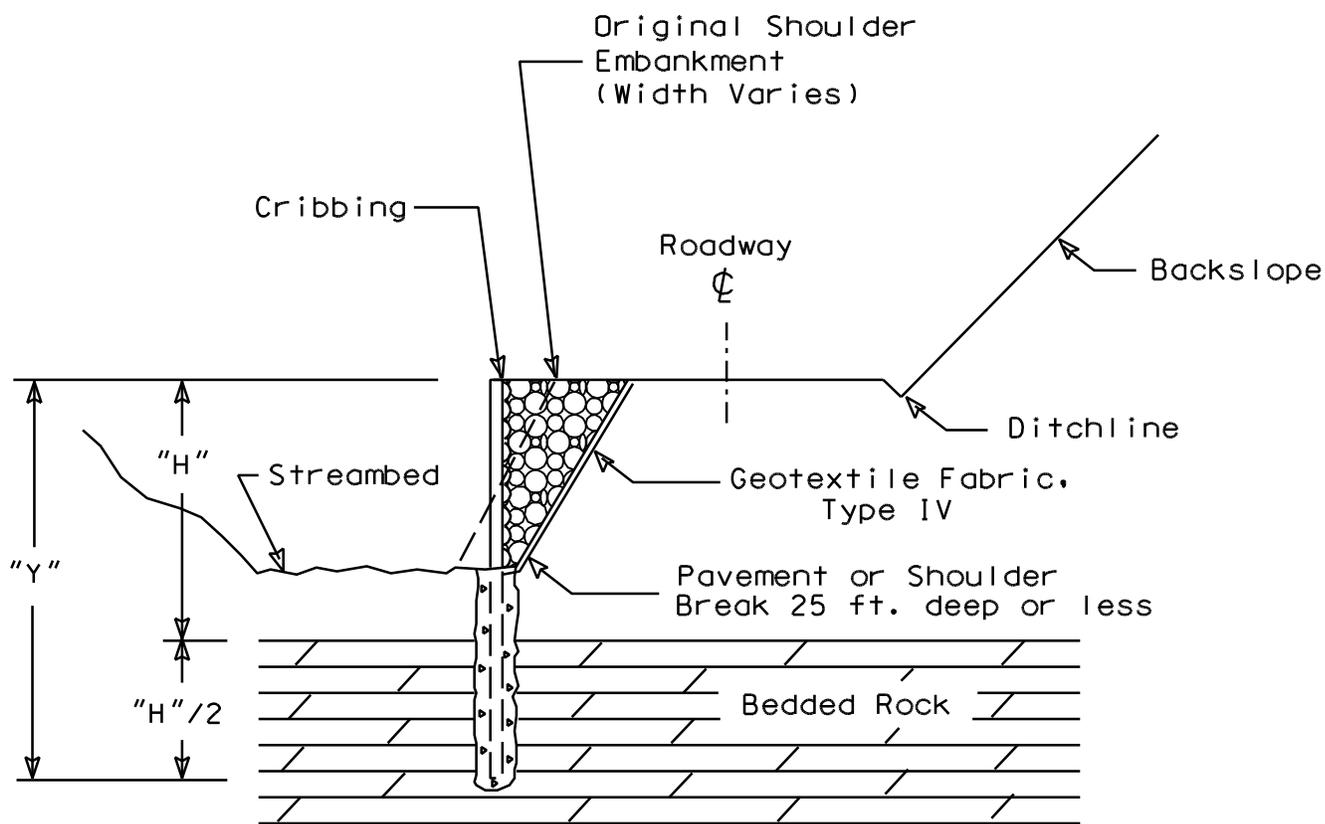
KY 3324 Riley Branch Rd.
 FD51-013-3324-000-003

Site No.	Milepoint	Type of Work	Length (L FT)	Quantity
1	0.142	Roadway Excavation	200	59.3 CU YD
2	0.412	Roadway Excavation	100	59.3 CU YD
3	0.477	Drill Steel	40	147 FT
3	0.477	Asphalt	40	5.5 TON
4	0.682	Roadway Excavation	140	186.7 CU YD
5	0.712	Roadway Excavation	40	23.7 CU YD
6	0.846	Drill Steel	150	525 FT
6	0.846	Asphalt	150	20.6 TON
7	0.884	Drill Steel	25	94.5 FT
7	0.884	Asphalt	25	3.4 TON
8	1.08	Drill Steel	950	3328.5 FT
8	1.08	Asphalt	950	130.6 TON
9	1.09	Roadway Excavation	80	331.9 CU YD
9	1.09	Asphalt	1500	206.3 TON
10	1.164	Crushed Agg. #57	20	14 TON
11	1.221	Replace Culvert Pipe 18"	30	30 FT
11	1.221	Drill Steel	20	73.5 FT
11	1.221	Asphalt	20	3 TON
12	1.26	Drill Steel	35	126 FT
12	1.26	Asphalt	35	5 TON
13	1.364	Drill Steel	30	105 FT
13	1.364	Asphalt	30	4 TON
14	1.462	Drill Steel	15	52.5 FT
14	1.462	Asphalt	15	2 TON
15	1.478	Drill Steel	50	178.5 FT
15	1.478	Asphalt	50	7 TON
16	1.558	Drill Steel	40	147 FT
16	1.558	Asphalt	40	6 TON
17	1.575	Roadway Excavation	25	8.3 CU YD
18	1.596	Drill Steel	150	525 FT
18	1.596	Asphalt	150	20.6 TON
19	1.649	Drill Steel	215	756 FT
19	1.649	Asphalt	215	30 TON
20	1.739	Drill Steel	100	357 FT
20	1.739	Asphalt	100	14 TON
21	2.169	Drill Steel	25	94.5 FT
21	2.169	Asphalt	25	3.4 TON
	0 - 2.251	Ditching		

**No guardrail will be needed with drilled steel due to embankment height.
 Pipe cleaning is incidental to ditching over entire road.**

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

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



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

Figure 2

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

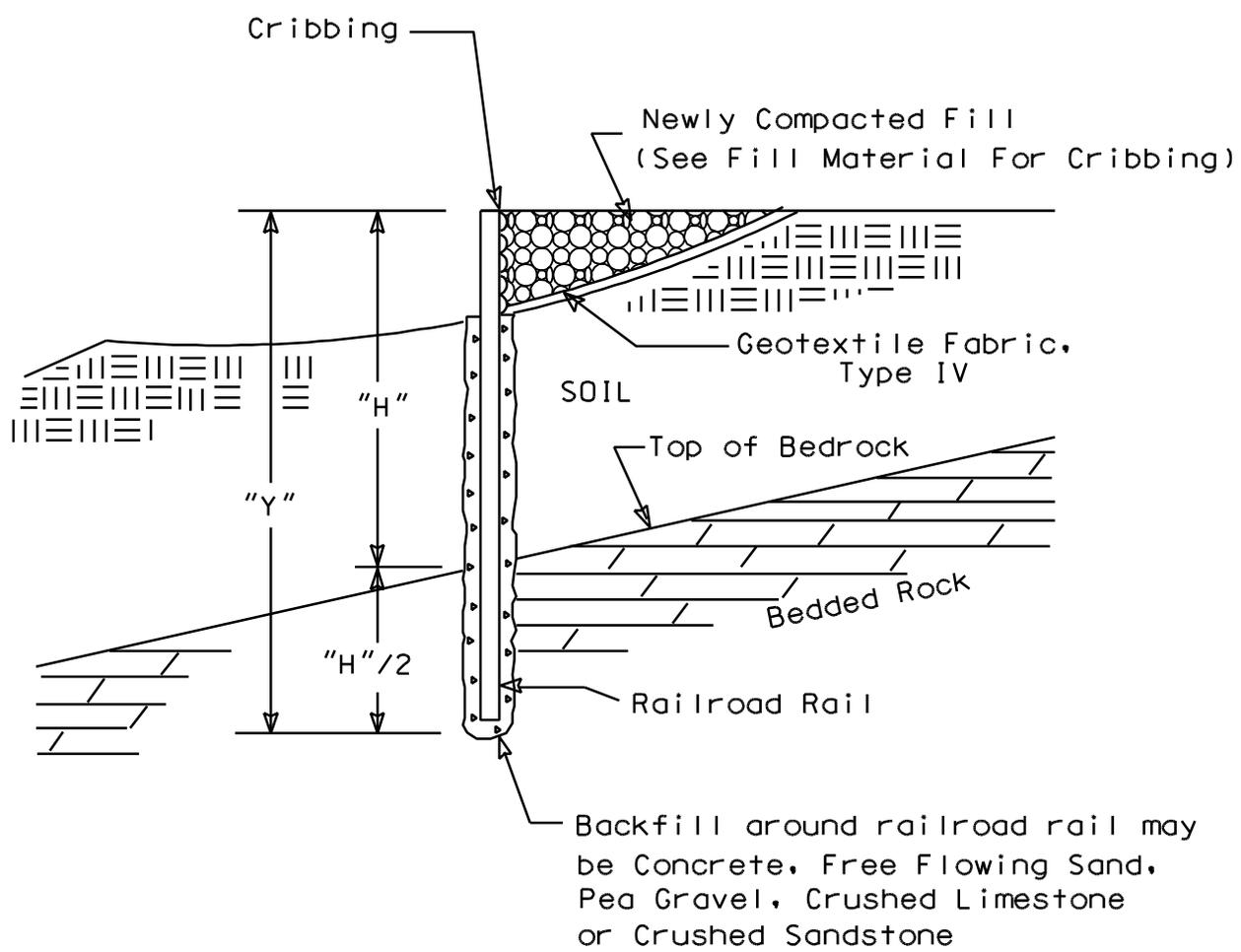


Figure 1

DETAIL SHEETS FOR SLIDE REPAIR

ALTERNATE SCHEMES FOR INSTALLING RAILROAD RAILS IN DRILLED SOCKETS

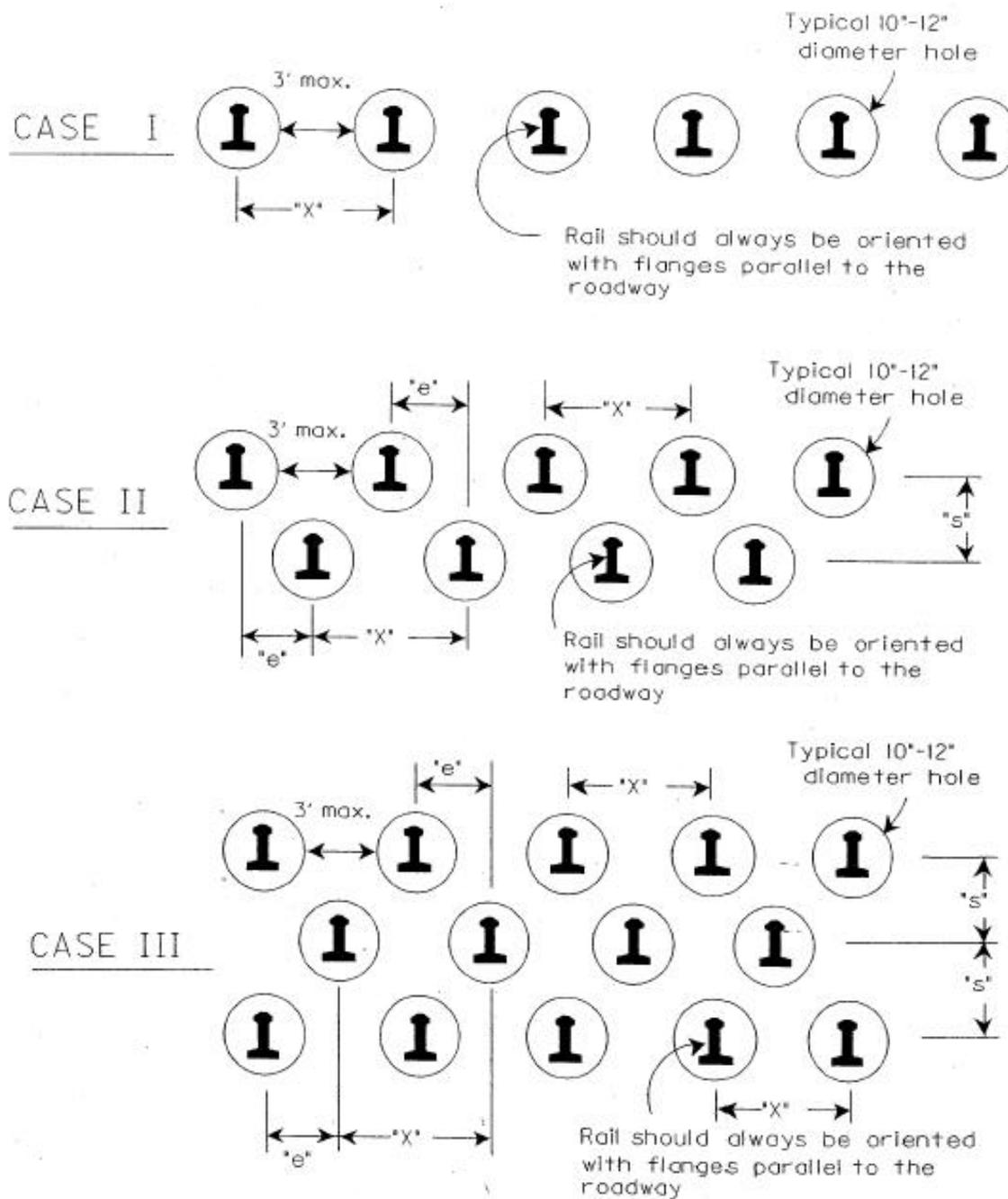


FIGURE 3

DETAIL SHEETS FOR SLIDE REPAIR

TABLE 1
 FACTOR OF SAFETY = 1.0
 DESIGN CHART FOR 130LBS/YD TO 133 LBS/YD
 RECYCLED (USED) RAILROAD RAILS

REFER TO FIGURES 1, 2, & 3 FOR DIMENSIONS SHOWN BELOW

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

NOTE: SOIL DEPTHS "H" GREATER THAN 21 FEET SHALL BE REFERRED TO THE ENGINEER.

PART II
SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to the *Standard Specifications for Road and Bridge Construction, Edition of 2004*, and *Standard Drawings, Edition of 2000* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2008* and *Standard Drawings, Edition of 2003 with the 2008 Revision*.

**Supplemental Specifications to The Standard Specifications
 for Road and Bridge Construction, 2008 Edition**
 (Effective with the July 24, 2009 Letting)

<p>SUBSECTION: REVISION:</p>	<p>101.02 Abbreviations. Insert the following abbreviation and text into the section: KEPSC Kentucky Erosion Prevention and Sediment Control</p>
<p>SUBSECTION: REVISION:</p>	<p>101.03 Definitions. Replace the definition for Specifications – <i>Special Provisions</i> with the following: Additions and revisions to the Standard and Supplemental Specifications covering conditions peculiar to and individual project.</p>
<p>SUBSECTION: REVISION:</p>	<p>102.07.01 General. Replace the first sentence with the following: Submit the Bid Proposal on forms furnished on the Department internet website (http://transportation.ky.gov/contract/), including the Bid Packet and disk created from the Expedite Bidding Program.</p>
<p>SUBSECTION: REVISION:</p>	<p>102.07.02 Computer Bidding. Replace the first paragraph with the following: Subsequent to ordering a Bid Proposal for a specific project, use the Department’s Expedite Bidding Program on the internet website of the Department of Highways, Division of Construction Procurement (http://transportation.ky.gov/contract/). Download the bid file from the Department’s website to prepare a Bid Proposal for submission to the Department. Include the completed Bid Packet produced by the Expedite Bidding Program and submit it along with the disk created by said program. Replace the second paragraph with the following: In case of a dispute, the printed Bid Proposal and bid item sheets created by the Expedite Bidding Program take precedence over any bid submittal.</p>
<p>SUBSECTION: REVISION:</p>	<p>102.08 IRREGULAR BID PROPOSALS. Replace point four of the first paragraph with the following: 4) fails to submit a disk created from the Expedite Bidding Program. Replace point one of the second paragraph with the following: 1) when the Bid Proposal is on a form other than that furnished by the Department or printed from other than the Expedite Bidding Program, or when the form is altered or any part is detached; or</p>
<p>SUBSECTION: REVISION:</p>	<p>103.02 AWARD OF CONTRACT. Replace the first sentence of the third paragraph with the following: The Department will normally award the Contract within 10 working days after the date of receiving Bid Proposals unless the Department deems it best to hold the Bid Proposals of any or all bidders for a period not to exceed 60 calendar days for final disposition of award.</p>

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<p>SUBSECTION: 105.12 FINAL INSPECTION AND ACCEPTANCE OF WORK. REVISION:</p>	<p>Insert the following paragraphs after the first paragraph:</p> <p>Notify the Engineer when all electrical items are complete. A notice of the electrical work completion shall be made in writing to the Contractor. Electrical items will be inspected when the electrical work is complete and are not subject to waiting until the project as a whole has been completed. The Engineer will notify the Division of Traffic Operations within 3 days that all electrical items are complete and ready for a final inspection. A final inspection will be completed within 90 days after the Engineer notifies the Division of Traffic Operations of the electrical work completion.</p> <p>Energize all electrical items prior to notifying the Engineer that all electrical items are complete. Electrical items must remain operational until the Division of Traffic Operations has inspected and accepted the electrical portion of the project. Payment for the electrical service is the responsibility of the Contractor from the time the electrical items are energized until the Division of Traffic Operations has accepted the work.</p> <p>Complete all corrective work within 90 calendar days of receiving the original electrical inspection report. Notify the Engineer when all corrective work is complete. The Engineer will notify the Division of Traffic Operations that the corrective work has been completed and the project is ready for a follow-up inspection. Upon re-inspection, if additional corrective work is required, complete within the same 90 calendar day allowance. The Department will not include time between completion of the corrective work and the follow up electrical inspection(s). The 90 calendar day allowance is cumulative regardless of the number of follow-up electrical inspections required.</p> <p>The Department will assume responsibility for the electrical service on a project once the Division of Traffic Operations gives final acceptance of the electrical items on the project. The Department will also assume routine maintenance of those items. Any damage done to accepted electrical work items by other Contractors shall be the responsibility of the Prime Contractor. The Department will not be responsible for repairing damage done by other contractors during the construction of the remaining project.</p> <p>Failure to complete the electrical corrective work within the 90 calendar day allowance will result in penalties assessed to the project. Penalties will be assessed at ½ the rate of liquidated damages established for the contract.</p> <p>Delete the fifth paragraph from the section.</p>
<p>SUBSECTION: 105.13 CLAIM RESOLUTION PROCESS. REVISION:</p>	<p>Delete the last paragraph from the section.</p>
<p>SUBSECTION: 106.10 FIELD WELDER CERTIFICATION REQUIREMENTS. REVISION:</p>	<p>Insert the following sentence before the first sentence of the first paragraph:</p> <p>All field welding must be performed by a certified welder unless otherwise noted.</p>
<p>SUBSECTION: 112.03.11 Temporary Pavement Markings. PART: B) Placement and Removal of Temporary Striping. REVISION:</p>	<p>Replace the 2nd sentence of the first paragraph with the following:</p> <p>On interstates and parkways, and other roadways approved by the State Highway Engineer, install pavement striping that is 6 inches in width.</p>
<p>SUBSECTION: 112.03.12 Project Traffic Coordinator (PTC). REVISION:</p>	<p>Add the following at the end of the subsection:</p> <p>After October 1, 2008 the Department will require the PTC to have successfully completed the applicable qualification courses. Personnel that have not successfully completed the applicable courses by that date will not be considered qualified. Prior to October 1, 2008, conform to Subsection 108.06 A) and ensure the designated PTC has sufficient skill and experience to properly perform the task.</p>

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SUBSECTION: REVISION:	206.03.02 Embankment Replace the last paragraph with the following: When rock roadbed is specified, construct the upper 2 feet of the embankment according to Subsection 204.03.09 A).
SUBSECTION: REVISION:	213.03.03 Inspection and Maintenance. Insert the following paragraph after the second paragraph: When the Contractor is required to obtain the KPDES permit, it is their responsibility to ensure compliance with the inspection and maintenance requirements of the permit. The Engineer will perform verification inspections a minimum of once per month and within 7 days of a ½ inch or greater rainfall event. The Engineer will document these inspections using Form TC 63-61 A. The Engineer will provide copies of the inspection only when improvements to the BMP's are required. Verification inspections performed by the Engineer do not relieve the Contractor of any responsibility for compliance with the KPDES permit. Initiate corrective action within 24 hours of any noted deficiency and complete the work within 5 days.
SUBSECTION: PART: REVISION:	213.03.05 Temporary Control Measures. F) Temporary Mulch. Replace the last sentence with the following: Place temporary mulch to an approximate 2-inch loose depth (2 tons per acre) and anchor it into the soil by mechanically crimping it into the soil surface or applying tackifier to provide a protective cover. Regardless of the anchoring method used, ensure the protective cover holds until disturbance is required or permanent controls are in installed.
SUBSECTION: REVISION:	303.05 PAYMENT. Replace the second paragraph of the section with the following: The Department will make payment for Drainage Blanket-Type II (ATDB) according to the Lot Pay Adjustment Schedule for Specialty Mixtures in Section 402.
SUBSECTION: PART: REVISION:	401.02.04 Special Requirements for Dryer Drum Plants. F) Production Quality Control. Replace the first sentence with the following: Stop mixing operations immediately if, at any time, a failure of the automatic electronic weighing system of the aggregate feed, asphalt binder feed, or water injection system control occurs.
SUBSECTION: REVISION:	401.02.04 Special Requirements for Dryer Drum Plants. Add the following: Part G) Water Injection System. Provided each system has prior approval as specified in Subsection 402.01.01, the Department will allow the use of water injection systems for purposes of foaming the asphalt binder and lowering the mixture temperature for production of Warm Mix Asphalt (WMA). Ensure the equipment for water injection meets the following requirements: 1) Injection equipment computer controls are automatically coupled to the plants controls (manual operation is not permitted); 2) Injection equipment has variable controls that introduce water ratios based on production rates of mixtures; 3) Injects water into the flow of asphalt binder prior to contacting the aggregate; 4) Provides alarms on the water injection system that operate when the flow of water is interrupted or deviates from the prescribed water rate.
SUBSECTION: REVISION:	401.03.01 Preparation of Mixtures. Replace the last sentence of the second paragraph with the following: Do not use asphalt binder while it is foaming in a storage tank.

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SUBSECTION: REVISION:	<p>401.03.01 Preparation of Mixtures. Replace the third paragraph and Mixing and Laying Temperature table with the following:</p> <p>Maintain the temperature of the component materials and asphalt mixture within the ranges listed in the following table:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="4" style="text-align: center;">MIXING AND LAYING TEMPERATURES (°F)</th> </tr> <tr> <th colspan="2" style="text-align: left;">Material</th> <th style="text-align: center;">Minimum</th> <th style="text-align: center;">Maximum</th> </tr> </thead> <tbody> <tr> <td colspan="2">Aggregates</td> <td style="text-align: center;">240</td> <td style="text-align: center;">330</td> </tr> <tr> <td colspan="2">Aggregates used with Recycled Asphalt Pavement (RAP)</td> <td style="text-align: center;">240</td> <td style="text-align: center;">—</td> </tr> <tr> <td rowspan="2">Asphalt Binders</td> <td>PG 64-22</td> <td style="text-align: center;">230</td> <td style="text-align: center;">330</td> </tr> <tr> <td>PG 76-22</td> <td style="text-align: center;">285</td> <td style="text-align: center;">350</td> </tr> <tr> <td rowspan="4">Asphalt Mixtures at Plant (Measured in Truck)</td> <td>PG 64-22 HMA</td> <td style="text-align: center;">250</td> <td style="text-align: center;">330</td> </tr> <tr> <td>PG 76-22 HMA</td> <td style="text-align: center;">310</td> <td style="text-align: center;">350</td> </tr> <tr> <td>PG 64-22 WMA</td> <td style="text-align: center;">230</td> <td style="text-align: center;">275</td> </tr> <tr> <td>PG 76-22 WMA</td> <td style="text-align: center;">250</td> <td style="text-align: center;">300</td> </tr> <tr> <td rowspan="4">Asphalt Mixtures at Project (Measured in Truck When Discharging)</td> <td>PG 64-22 HMA</td> <td style="text-align: center;">230</td> <td style="text-align: center;">330</td> </tr> <tr> <td>PG 76-22 HMA</td> <td style="text-align: center;">300</td> <td style="text-align: center;">350</td> </tr> <tr> <td>PG 64-22 WMA</td> <td style="text-align: center;">210</td> <td style="text-align: center;">275</td> </tr> <tr> <td>PG 76-22 WMA</td> <td style="text-align: center;">240</td> <td style="text-align: center;">300</td> </tr> </tbody> </table>	MIXING AND LAYING TEMPERATURES (°F)				Material		Minimum	Maximum	Aggregates		240	330	Aggregates used with Recycled Asphalt Pavement (RAP)		240	—	Asphalt Binders	PG 64-22	230	330	PG 76-22	285	350	Asphalt Mixtures at Plant (Measured in Truck)	PG 64-22 HMA	250	330	PG 76-22 HMA	310	350	PG 64-22 WMA	230	275	PG 76-22 WMA	250	300	Asphalt Mixtures at Project (Measured in Truck When Discharging)	PG 64-22 HMA	230	330	PG 76-22 HMA	300	350	PG 64-22 WMA	210	275	PG 76-22 WMA	240	300
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SUBSECTION: REVISION:	<p>402.01 Description. Replace the paragraph with the following:</p> <p>Provide the process control and acceptance testing of all classes and types of asphalt mixtures which may be furnished either as hot mix asphalt (HMA) or warm mix asphalt (WMA) produced with water injection systems.</p>																																																	
SUBSECTION REVISION:	<p>402.01.01 Warm Mix Asphalt (WMA) Evaluation and Approval. Add the following subsection:</p> <p>402.01.01 Warm Mix Asphalt (WMA) Evaluation and Approval. The Department will evaluate trial production of WMA by use of a water injection system provided the system is installed according to the manufacturer's requirements and satisfies the requirements of Section 401. Evaluation will include production and placement of WMA to demonstrate adequate mixture quality including volumetric properties and density by Option A as specified in Subsection 402.03.02 D). Do not place WMA for evaluation on Department projects. Provided production and placement operations satisfy the applicable quality levels, the Department will approve WMA production on Department projects using the water injection system as installed on the specific asphalt mixing plant evaluated.</p>																																																	
SUBSECTION: REVISION:	<p>402.05.02 Asphalt Mixtures and Mixtures With RAP. Replace Subsection Title as below:</p> <p>402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP.</p>																																																	
SUBSECTION: REVISION:	<p>402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Replace the paragraph with the following:</p> <p>The Department will pay for the mixture at the Contract unit bid price and apply a Lot Pay Adjustment for each lot placed based on the degree of compliance with the specified tolerances. Using the appropriate Lot Pay Adjustment Schedule, the Department will assign a pay value for the applicable properties within each subplot and average the subplot pay values to determine the pay value for a given property for each lot. The Department will apply the Lot Pay Adjustment for each lot to a defined unit price of \$50.00 per ton. The Department will calculate the Lot Pay Adjustment using all possible incentives and disincentives but will not allow the overall pay value for a lot to exceed 1.00.</p>																																																	

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<p>SUBSECTION: PART: REVISION:</p>	<p>402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. C) Conventional and RAP Mixtures Placed on Shoulders. Replace title with the following: HMA, WMA, and RAP Mixtures Placed on Shoulders.</p>												
<p>SUBSECTION: PART: REVISION:</p>	<p>402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. D) Conventional and RAP Mixtures Placed Monolithically as Asphalt Pavement Wedge. Replace the title with the following: HMA, WMA, and RAP Mixtures Placed Monolithically as Asphalt Pavement Wedge.</p>												
<p>SUBSECTION: PART: TABLES: REVISION:</p>	<p>402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Lot Pay Adjustment Schedule, Compaction Option A, Base and Binder Mixtures VMA Replace the VMA table with the following:</p> <table border="1" data-bbox="753 768 1117 982"> <thead> <tr> <th colspan="2" style="text-align: center;">VMA</th> </tr> <tr> <th style="text-align: center;">Pay Value</th> <th style="text-align: center;">Deviation From Minimum</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.00</td> <td style="text-align: center;">≥ min. VMA</td> </tr> <tr> <td style="text-align: center;">0.95</td> <td style="text-align: center;">0.1-0.5 below min.</td> </tr> <tr> <td style="text-align: center;">0.90</td> <td style="text-align: center;">0.6-1.0 below min.</td> </tr> <tr> <td style="text-align: center;">(1)</td> <td style="text-align: center;">> 1.0 below min.</td> </tr> </tbody> </table>	VMA		Pay Value	Deviation From Minimum	1.00	≥ min. VMA	0.95	0.1-0.5 below min.	0.90	0.6-1.0 below min.	(1)	> 1.0 below min.
VMA													
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(1)	> 1.0 below min.												
<p>SUBSECTION: PART: TABLES: REVISION:</p>	<p>402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Lot Pay Adjustment Schedule, Compaction Option A, Surface Mixtures VMA Replace the VMA table with the following:</p> <table border="1" data-bbox="737 1220 1101 1467"> <thead> <tr> <th colspan="2" style="text-align: center;">VMA</th> </tr> <tr> <th style="text-align: center;">Pay Value</th> <th style="text-align: center;">Deviation From Minimum</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.00</td> <td style="text-align: center;">≥ min. VMA</td> </tr> <tr> <td style="text-align: center;">0.95</td> <td style="text-align: center;">0.1-0.5 below min.</td> </tr> <tr> <td style="text-align: center;">0.90</td> <td style="text-align: center;">0.6-1.0 below min.</td> </tr> <tr> <td style="text-align: center;">(1)</td> <td style="text-align: center;">> 1.0 below min.</td> </tr> </tbody> </table>	VMA		Pay Value	Deviation From Minimum	1.00	≥ min. VMA	0.95	0.1-0.5 below min.	0.90	0.6-1.0 below min.	(1)	> 1.0 below min.
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<p>SUBSECTION: PART: TABLE: REVISION:</p>	<p>402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Lot Pay Adjustment Schedule, Compaction Option B Mixtures VMA Replace the VMA table with the following:</p> <table border="1" data-bbox="743 388 1107 640" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" style="text-align: center;">VMA</th> </tr> <tr> <th style="text-align: center;">Pay Value</th> <th style="text-align: center;">Deviation From Minimum</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.00</td> <td style="text-align: center;">≥min. VMA</td> </tr> <tr> <td style="text-align: center;">0.95</td> <td style="text-align: center;">0.1-0.5 below min.</td> </tr> <tr> <td style="text-align: center;">0.90</td> <td style="text-align: center;">0.6-1.0 below min.</td> </tr> <tr> <td style="text-align: center;">⁽²⁾</td> <td style="text-align: center;">> 1.0 below min.</td> </tr> </tbody> </table>	VMA		Pay Value	Deviation From Minimum	1.00	≥min. VMA	0.95	0.1-0.5 below min.	0.90	0.6-1.0 below min.	⁽²⁾	> 1.0 below min.											
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<p>SUBSECTION: PART: NUMBER: REVISION:</p>	<p>403.03.03 Preparation of Mixture. C) Mix Design Criteria. 1) Preliminary Mix Design. Replace the last two sentences of the paragraph and table with the following:</p> <p>Complete the volumetric mix design at the appropriate number of gyrations as given in the table below for the number of 20-year ESAL's. The Department will define the relationship between ESAL classes, as given in the bid items for Superpave mixtures, and 20-year ESAL ranges as follows:</p> <table border="1" data-bbox="565 970 1273 1121" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2" style="text-align: center;">Class</th> <th rowspan="2" style="text-align: center;">ESAL's (millions)</th> <th colspan="3" style="text-align: center;">Number of Gyration</th> </tr> <tr> <th style="text-align: center;">$N_{initial}$</th> <th style="text-align: center;">N_{design}</th> <th style="text-align: center;">N_{max}</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">< 3.0</td> <td style="text-align: center;">6</td> <td style="text-align: center;">50</td> <td style="text-align: center;">75</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">3.0 to < 30.0</td> <td style="text-align: center;">7</td> <td style="text-align: center;">75</td> <td style="text-align: center;">115</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">≥ 30.0</td> <td style="text-align: center;">8</td> <td style="text-align: center;">100</td> <td style="text-align: center;">160</td> </tr> </tbody> </table>	Class	ESAL's (millions)	Number of Gyration			$N_{initial}$	N_{design}	N_{max}	2	< 3.0	6	50	75	3	3.0 to < 30.0	7	75	115	4	≥ 30.0	8	100	160
Class	ESAL's (millions)			Number of Gyration																				
		$N_{initial}$	N_{design}	N_{max}																				
2	< 3.0	6	50	75																				
3	3.0 to < 30.0	7	75	115																				
4	≥ 30.0	8	100	160																				
<p>SUBSECTION: PART: REVISION:</p>	<p>403.03.09 Leveling and Wedging, and Scratch Course. A) Leveling and Wedging. Replace the first sentence of the first paragraph with the following:</p> <p>Conform to the gradation requirements (control points) of AASHTO M 323 for base, binder, or surface as the Engineer directs.</p>																							
<p>SUBSECTION: PART: REVISION:</p>	<p>403.03.09 Leveling and Wedging, and Scratch Course. B) Scratch Course. Replace the second sentence of the first paragraph with the following:</p> <p>Conform to the gradation requirements (control points) of AASHTO M 323 for base, binder, or surface as the Engineer directs.</p>																							
<p>SUBSECTION: REVISION:</p>	<p>407.01 DESCRIPTION. Replace the first sentence of the paragraph with the following:</p> <p>Construct a pavement wedge composed of a hot-mixed or warm-mixed asphalt mixture.</p>																							
<p>SUBSECTION: REVISION:</p>	<p>409.01 DESCRIPTION. Replace the first sentence of the paragraph with the following:</p> <p>Use reclaimed asphalt pavement (RAP) from Department projects or other approved sources in hot mix asphalt (HMA) or warm mix asphalt (WMA) provided mixture requirements are satisfied.</p>																							
<p>SUBSECTION: REVISION:</p>	<p>410.01 DESCRIPTION. Delete the second sentence of the paragraph.</p>																							

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SUBSECTION: REVISION:	410.03.01 Corrective Work. Replace the last sentence of the paragraph with the following: Provide a final surface comparable to the adjacent pavement that does not require corrective work in respect to texture, appearance, and skid resistance.														
SUBSECTION: PART: NUMBER: REVISION:	410.03.02 Ride Quality. B) Requirements. 1) Category A. Replace the last sentence of the first paragraph with the following: At the Department's discretion, a pay deduction of \$1200 per 0.1-lane-mile section may be applied in lieu of corrective work.														
SUBSECTION: PART: NUMBER: REVISION:	410.03.02 Ride Quality. B) Requirements. 2) Category B. Replace the second and third sentence of the first paragraph with the following: When the IRI is greater than 90 for a 0.1-mile section, perform corrective work, or remove and replace the pavement to achieve the specified IRI. At the Department's discretion, a pay deduction of \$750 per 0.1-lane-mile section may be applied in lieu of corrective work.														
SUBSECTION: REVISION:	410.05 PAYMENT. Add the following sentence to the end of the first paragraph: The sum of the pay value adjustments for ride quality shall not exceed \$0 for the project as a whole.														
SUBSECTION: REVISION:	413.05.02 CL3 SMA BASE 1.00D PG76-22. Insert the following sentence between the first and second sentence of the first paragraph: The Department will calculate the Lot Pay Adjustment using all possible incentives and disincentives but will not allow the overall pay value for a lot to exceed 1.00.														
SUBSECTION: TABLE: REVISION:	413.05.02 CL3 SMA BASE 1.00D PG 76-22. JOINT DENSITY TABLE Replace the joint density table with the following: <table border="1" data-bbox="695 1348 1140 1612" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" style="text-align: center;">LANE DENSITY</th> </tr> <tr> <th style="text-align: center;">Pay Value</th> <th style="text-align: center;">Test Result (%)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.05</td> <td style="text-align: center;">95.0-96.5</td> </tr> <tr> <td style="text-align: center;">1.00</td> <td style="text-align: center;">93.0-94.9</td> </tr> <tr> <td style="text-align: center;">0.95</td> <td style="text-align: center;">92.0-92.9 or 96.6-97.0</td> </tr> <tr> <td style="text-align: center;">0.90</td> <td style="text-align: center;">91.0-91.9 or 97.1-97.5</td> </tr> <tr> <td style="text-align: center;">(1)</td> <td style="text-align: center;">< 91.0 or > 97.5</td> </tr> </tbody> </table>	LANE DENSITY		Pay Value	Test Result (%)	1.05	95.0-96.5	1.00	93.0-94.9	0.95	92.0-92.9 or 96.6-97.0	0.90	91.0-91.9 or 97.1-97.5	(1)	< 91.0 or > 97.5
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(1)	< 91.0 or > 97.5														
SUBSECTION: REVISION:	413.05.03 CL3 SMA SURF 0.50A PG76-22 and CL3 SMA SURF 0.38A PG76-22. Insert the following sentence between the first and second sentence of the first paragraph: The Department will calculate the Lot Pay Adjustment using all possible incentives and disincentives but will not allow the overall pay value for a lot to exceed 1.00.														

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<p>SUBSECTION: TABLE: REVISION:</p>	<p>413.05.03 CL3 SMA SURF 0.50A PG76-22 and CL3 SMA SURF 0.38A PG76-22. JOINT DENSITY TABLE Replace the joint density table with the following:</p> <table border="1" data-bbox="581 388 1258 709" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3" style="text-align: center;">DENSITY</th> </tr> <tr> <th style="text-align: center;">Pay Value</th> <th style="text-align: center;">Lane Density Test Result (%)</th> <th style="text-align: center;">Joint Density Test Result (%)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.05</td> <td style="text-align: center;">95.0-96.5</td> <td style="text-align: center;">92.0-96.0</td> </tr> <tr> <td style="text-align: center;">1.00</td> <td style="text-align: center;">93.0-94.9</td> <td style="text-align: center;">90.0-91.9</td> </tr> <tr> <td style="text-align: center;">0.95</td> <td style="text-align: center;">92.0-92.9 or 96.6-97.0</td> <td style="text-align: center;">89.0-89.9 or 96.1-96.5</td> </tr> <tr> <td style="text-align: center;">0.90</td> <td style="text-align: center;">91.0-91.9 or 97.1-97.5</td> <td style="text-align: center;">88.0-88.9 or 96.6-97.0</td> </tr> <tr> <td style="text-align: center;">0.75</td> <td style="text-align: center;">----</td> <td style="text-align: center;">< 88.0 or > 97.0</td> </tr> <tr> <td style="text-align: center;"><i>(1)</i></td> <td style="text-align: center;">< 91.0 or > 97.5</td> <td style="text-align: center;">----</td> </tr> </tbody> </table>	DENSITY			Pay Value	Lane Density Test Result (%)	Joint Density Test Result (%)	1.05	95.0-96.5	92.0-96.0	1.00	93.0-94.9	90.0-91.9	0.95	92.0-92.9 or 96.6-97.0	89.0-89.9 or 96.1-96.5	0.90	91.0-91.9 or 97.1-97.5	88.0-88.9 or 96.6-97.0	0.75	----	< 88.0 or > 97.0	<i>(1)</i>	< 91.0 or > 97.5	----
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0.75	----	< 88.0 or > 97.0																							
<i>(1)</i>	< 91.0 or > 97.5	----																							
<p>SUBSECTION: REVISION:</p>	<p>501.05.02 Ride Quality. Add the following sentence to the end of the first paragraph: The sum of the pay value adjustments for the ride quality shall not exceed \$0 for the project as a whole.</p>																								
<p>SUBSECTION: REVISION:</p>	<p>505.03.04 Detectable Warnings. Replace the first sentence with the following: Install detectable warning pavers at all sidewalk ramps and on all commercial entrances according to the Standard Drawings.</p>																								
<p>SUBSECTION: REVISION:</p>	<p>505.04.04 Detectable Warnings. Replace the paragraph with the following: The Department will measure the quantity in square feet. All retrofit applications for maintenance projects will require the removal of existing sidewalks to meet the requirements of the standard drawings applicable to the project. The cost associated with the removal of the existing sidewalk will be incidental to the detectable warnings bid item or incidental to the bid item for the construction of the concrete sidewalk unless otherwise noted.</p>																								
<p>SUBSECTION: REVISION:</p>	<p>505.05 PAYMENT. Add the following to the bid item table:</p> <table border="1" data-bbox="381 1375 1006 1438" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: left;"><u>Code</u></th> <th style="text-align: left;"><u>Pay Item</u></th> <th style="text-align: left;"><u>Pay Unit</u></th> </tr> </thead> <tbody> <tr> <td>23158ES505</td> <td>Detectable Warnings</td> <td>Square Foot</td> </tr> </tbody> </table>	<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>	23158ES505	Detectable Warnings	Square Foot																		
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23158ES505	Detectable Warnings	Square Foot																							
<p>SUBSECTION: REVISION:</p>	<p>509.01 DESCRIPTION. Replace the second paragraph with the following: The Department may allow the use of similar units that conform to the National Cooperative Highway Research Program (NCHRP) 350 Test Level 3 (TL-3) requirements and the typical features depicted by the Standard Drawings. Obtain the Engineers approval prior to use. Ensure the barrier wall shape, length, material, drain slot dimensions and locations typical features are met and the reported maximum deflection is 3 feet or less from the NCHRP 350 TL-3 for Test 3 – 11 (pickup truck impacting at 60 mph at a 25-degree angle.)</p>																								
<p>SUBSECTION: REVISION:</p>	<p>601.03.02 Concrete Producer Responsibilities. Add the following to the first paragraph: If a concrete plant becomes unqualified during a project and there are no other qualified plants in the region, the Department will provide qualified personnel to witness and ensure the producer follows the required specifications. The Department will assess the Contractor a \$100 per hour charge for this service.</p>																								

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SUBSECTION: REVISION:	606.02.11 Coarse Aggregate. Replace with the following: Conform to Section 805, size No. 8 or 9-M.
SUBSECTION: REVISION:	609.04.06 Joint Sealing. Replace Subsection 601.04 with the following: Subsection 606.04.08.
SUBSECTION: REVISION:	609.05 Payment. Replace the Pay Unit for Joint Sealing with the following: See Subsection 606.05.
SUBSECTION: REVISION:	701.03.06 Initial Backfill. Replace the first sentence of the last paragraph with the following: When the Contract specifies, perform quality control testing to verify compaction according to KM 64-512.
SUBSECTION: REVISION:	701.03.08 Testing of Pipe. Replace and rename the subsection with the following: <p align="center">701.03.08 Inspection of Pipe. The engineer will visually inspect all pipe. The Department will require camera/video inspection on a minimum of 50 percent of the linear feet of all installed pipe structures. Conduct camera/video inspection according to KM 64-114. The pipe to be installed under pavement will be selected first. If the total linear feet of pipe under pavement is less than 50 percent of the linear feet of all pipe installed, the Engineer will randomly select installations from the remaining pipe structures on the project to provide for the minimum inspection requirement. The pipe will be selected in complete runs (junction-junction or headwall-headwall) until the total linear feet of pipe to be inspected is at least 50 percent of the total linear feet of all installed pipe on the project.</p> <p>Unless the Engineer directs otherwise, schedule the inspections no sooner than 30 days after completing the installation and completion of earthwork to within 1 foot of the finished subgrade. When final surfacing conflicts with the 30-day minimum, conduct the inspections prior to placement of the final surface. The contractor must ensure that all pipe are free and clear of any debris so that a complete inspection is possible.</p> <p>Notify the Engineer immediately if distresses or locations of improper installation are discovered. When camera testing shows distresses or improper installation in the installed pipe, the Engineer may require additional sections to be tested. Provide the video and report to the Engineer when testing is complete in accordance with KM 64-114.</p> <p>Pipes that exhibit distress or signs of improper installation may necessitate repair or removal as the Engineer directs. These signs include, but are not limited to: deflection, cracking, joint separation, sagging or other interior damage. If corrugated metal or thermoplastic pipes exceed the deflection and installation thresholds indicated in the table below, provide the Department with an evaluation of each location conducted by a Professional Engineer addressing the severity of the deflection, structural integrity, environmental conditions, design service life, and an evaluation of the factor of safety using Section 12, "Buried Structures and Tunnel Liners," of the AASHTO LRFD Bridge Design Specifications. Based on the evaluation, the Department may allow the pipe to remain in place at a reduced unit price as shown in the table below. Provide 5 business days for the Department to review the evaluation. When the pipe shows deflection of 10 percent or greater, remove and replace the pipe. When the camera/video or laser inspection results are called into question, the Department may require direct measurements or mandrel testing.</p> <p>The Cabinet may elect to conduct Quality Assurance verifications of any pipe inspections.</p>

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<p>SUBSECTION: REVISION:</p>	<p>701.04.07 Testing. Replace and rename the subsection with the following:</p> <p align="center">701.04.07 Pipeline Video Inspection. The Department will measure the quantity in linear feet along the pipe invert of the structure inspected. When inspection above the specified 50 percent is performed due to a disagreement or suspicion of additional distresses and the Department is found in error, the Department will measure the quantity as Extra Work according to Subsection 104.03. However, if additional distresses or non-conformance is found, the Department will not measure the additional inspection for payment.</p>												
<p>SUBSECTION: REVISION:</p>	<p>701.05 PAYMENT. Add the following pay item to the list of pay items:</p> <table border="0"> <tr> <td><u>Code</u></td> <td><u>Pay Item</u></td> <td><u>Pay Unit</u></td> </tr> <tr> <td>23131ER701</td> <td>Pipeline Video Inspection</td> <td>Linear Foot</td> </tr> </table>	<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>	23131ER701	Pipeline Video Inspection	Linear Foot						
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23131ER701	Pipeline Video Inspection	Linear Foot											
<p>SUBSECTION: TABLE: REVISION:</p>	<p>701.05 PAYMENT PIPE DEFLECTION DETERMINED BY CAMERA TESTING Replace this table with the following table and note:</p> <table border="1" data-bbox="483 789 1354 978"> <thead> <tr> <th colspan="2">PIPE DEFLECTION</th> </tr> <tr> <th>Amount of Deflection (%)</th> <th>Payment</th> </tr> </thead> <tbody> <tr> <td>0.0 to 5.0</td> <td>100% of the Unit Bid Price</td> </tr> <tr> <td>5.1 to 9.9</td> <td>50% of the Unit Bid Price ⁽¹⁾</td> </tr> <tr> <td>10 or greater</td> <td>Remove and Replace</td> </tr> </tbody> </table> <p>⁽¹⁾ Provide Structural Analysis as indicated above. Based on the structural analysis, pipe may be allowed to remain in place at the reduced unit price.</p>	PIPE DEFLECTION		Amount of Deflection (%)	Payment	0.0 to 5.0	100% of the Unit Bid Price	5.1 to 9.9	50% of the Unit Bid Price ⁽¹⁾	10 or greater	Remove and Replace		
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<p>SUBSECTION: TABLE: REVISION:</p>	<p>701.05 PAYMENT PIPE DEFLECTION DETERMINED BY MANDREL TESTING Delete this table.</p>												
<p>SUBSECTION: REVISION:</p>	<p>713.02.01 Paint. Replace with the following:</p> <p>Conform to Section 842 and Section 846.</p>												
<p>SUBSECTION: REVISION:</p>	<p>713.03 CONSTRUCTION. Replace the first sentence of the second paragraph with the following:</p> <p>On interstates and parkways, and other routes approved by the State Highway Engineer, install pavement striping that is 6 inches in width.</p>												
<p>SUBSECTION: REVISION:</p>	<p>713.03.03 Paint Application. Replace the second paragraph with the following table:</p> <table border="1" data-bbox="391 1545 1446 1667"> <thead> <tr> <th>Material</th> <th>Paint Application Rate</th> <th>Glass Beads Application Rate</th> </tr> </thead> <tbody> <tr> <td>4 inch waterborne paint</td> <td>Min. of 16.5 gallons/mile</td> <td>Min. of 6 pounds/gallon</td> </tr> <tr> <td>6 inch waterborne paint</td> <td>Min. of 24.8 gallons/mile</td> <td>Min. of 6 pounds/gallon</td> </tr> <tr> <td>6 inch durable waterborne paint</td> <td>Min. of 36 gallons/mile</td> <td>Min. of 6 pounds/gallon</td> </tr> </tbody> </table>	Material	Paint Application Rate	Glass Beads Application Rate	4 inch waterborne paint	Min. of 16.5 gallons/mile	Min. of 6 pounds/gallon	6 inch waterborne paint	Min. of 24.8 gallons/mile	Min. of 6 pounds/gallon	6 inch durable waterborne paint	Min. of 36 gallons/mile	Min. of 6 pounds/gallon
Material	Paint Application Rate	Glass Beads Application Rate											
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SUBSECTION: REVISION:	713.03.04 Marking Removal. Replace the last sentence of the paragraph with the following: Vacuum all marking material and removal debris concurrently with the marking removal operation.									
SUBSECTION: REVISION:	713.05 PAYMENT. Insert the following codes and pay items below the Pavement Striping – Permanent Paint: <table border="0"> <thead> <tr> <th><u>Code</u></th> <th><u>Pay Item</u></th> <th><u>Pay Unit</u></th> </tr> </thead> <tbody> <tr> <td>23159EN</td> <td>Durable Waterborne Marking – 6 IN W</td> <td>Linear Foot</td> </tr> <tr> <td>23160EN</td> <td>Durable Waterborne Marking – 6 IN Y</td> <td>Linear Foot</td> </tr> </tbody> </table>	<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>	23159EN	Durable Waterborne Marking – 6 IN W	Linear Foot	23160EN	Durable Waterborne Marking – 6 IN Y	Linear Foot
<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>								
23159EN	Durable Waterborne Marking – 6 IN W	Linear Foot								
23160EN	Durable Waterborne Marking – 6 IN Y	Linear Foot								
SUBSECTION: REVISION:	714.03 CONSTRUCTION. Insert the following paragraph at the end of the third paragraph: Use Type I Tape for markings on bridge decks, JPC pavement and JPC intersections. Thermoplastic should only be used for markings on asphalt pavement									
SUBSECTION: REVISION:	714.03.07 Marking Removal. Replace the third sentence of the paragraph with the following: Vacuum all marking material and removal debris concurrently with the marking removal operation.									
SUBSECTION: REVISION:	716.01 DESCRIPTION. Insert the following after the first sentence: Energize lighting as soon as it is fully functional and ready for inspection. Ensure that lighting remains operational until the Division of Traffic Operations has provided written acceptance of the electrical work.									
SUBSECTION: REVISION:	716.02.01 Roadway Lighting Materials. Replace the third sentence of the paragraph with the following: Submit for material approval an electronic file of descriptive literature, drawings, and any requested design data.									
SECTION: REVISION:	717 – THERMOPLASTIC INTERSECTION MARKINGS. Replace the section name with the following: INTERSECTION MARKINGS.									
SUBSECTION: REVISION:	717.01 DESCRIPTION: Replace the paragraph with the following: Furnish and install thermoplastic or Type I tape intersection markings (Stop Bars, Crosswalks, Turn Arrows, etc.) Thermoplastic markings may be installed by either a machine applied, screed extrusion process or by applying preformed thermoplastic intersection marking material.									
SUBSECTION: REVISION:	717.02 MATERIALS AND EQUIPMENT. Insert the following subsection: 717.02.06 Type I Tape. Conform to Section 836.									
SUBSECTION: REVISION:	717.03.03 Application. Insert the following part to the subsection: B) Type I Tape Intersection Markings. Apply according to the manufacturer's recommendations. Cut all tape at pavement joints when applied to concrete surfaces.									

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SUBSECTION: PART: REVISION:	717.03.05 Proving Period. A) Requirements. Insert the following to this section: 2) Type I Tape. During the proving period, ensure that the pavement marking material shows no signs of failure due to blistering, excessive cracking, bleeding, staining, discoloration, oil content of the pavement materials, drippings, chipping, spalling, poor adhesion to the pavement, loss of retroreflectivity, vehicular damage, and normal wear. Type I Tape is manufactured off site and warranted by the manufacturer to meet certain retroreflective requirements. As long as the material is adequately bonded to the surface and shows no signs of failure due to the other items listed in Subsection 714.03.06 A) 1), retroreflectivity readings will not be required. In the absence of readings, the Department will accept tape based on a nighttime visual observation.																																							
SUBSECTION: REVISION:	717.03.06 Marking Removal. Replace the third sentence of the paragraph with the following: Vacuum all marking material and removal debris concurrently with the marking removal operation.																																							
SUBSECTION: REVISION:	717.05 PAYMENT. Insert the following bid item codes: <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;"><u>Code</u></th> <th style="text-align: left;"><u>Pay Unit</u></th> <th style="text-align: left;"><u>Pay Item</u></th> </tr> </thead> <tbody> <tr> <td>06563</td> <td>Pave Marking – R/R X Bucks 16 IN</td> <td>Linear Foot</td> </tr> <tr> <td>20782NS714</td> <td>Pave Marking Thermo – Bike</td> <td>Each</td> </tr> <tr> <td>23251ES717, 23264ES717</td> <td>Pave Mark TY I Tape X-Walk, Size</td> <td>Linear Foot</td> </tr> <tr> <td>23252ES717, 23265ES717</td> <td>Pave Mark TY I Tape Stop Bar, Size</td> <td>Linear Foot</td> </tr> <tr> <td>23253ES717</td> <td>Pave Mark TY I Tape Cross Hatch</td> <td>Square Foot</td> </tr> <tr> <td>23254ES717</td> <td>Pave Mark TY I Tape Dotted Lane Extension</td> <td>Linear Foot</td> </tr> <tr> <td>23255ES717</td> <td>Pave Mark TY I Tape Arrow, Type</td> <td>Each</td> </tr> <tr> <td>23268ES717-23270ES717</td> <td></td> <td></td> </tr> <tr> <td>23256ES717</td> <td>Pave Mark TY I Tape- ONLY</td> <td>Each</td> </tr> <tr> <td>23257ES717</td> <td>Pave Mark TY I Tape- SCHOOL</td> <td>Each</td> </tr> <tr> <td>23266ES717</td> <td>Pave Mark TY 1 Tape R/R X Bucks-16 IN</td> <td>Linear Foot</td> </tr> <tr> <td>23267ES717</td> <td>Pave Mark TY 1 Tape-Bike</td> <td>Each</td> </tr> </tbody> </table>	<u>Code</u>	<u>Pay Unit</u>	<u>Pay Item</u>	06563	Pave Marking – R/R X Bucks 16 IN	Linear Foot	20782NS714	Pave Marking Thermo – Bike	Each	23251ES717, 23264ES717	Pave Mark TY I Tape X-Walk, Size	Linear Foot	23252ES717, 23265ES717	Pave Mark TY I Tape Stop Bar, Size	Linear Foot	23253ES717	Pave Mark TY I Tape Cross Hatch	Square Foot	23254ES717	Pave Mark TY I Tape Dotted Lane Extension	Linear Foot	23255ES717	Pave Mark TY I Tape Arrow, Type	Each	23268ES717-23270ES717			23256ES717	Pave Mark TY I Tape- ONLY	Each	23257ES717	Pave Mark TY I Tape- SCHOOL	Each	23266ES717	Pave Mark TY 1 Tape R/R X Bucks-16 IN	Linear Foot	23267ES717	Pave Mark TY 1 Tape-Bike	Each
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SUBSECTION: REVISION:	805.01 GENERAL. Replace the second paragraph with the following: The Department’s List of Approved Materials includes the Aggregate Source List, the list of Class A and Class B Polish-Resistant Aggregate Sources, and the Concrete Restriction List.																																							
SUBSECTION: REVISION:	805.04 CONCRETE. Replace the “AASHTO T 160” reference in first sentence of the third paragraph with “KM 64-629”																																							
SUBSECTION: TABLE: PART: REVISION:	805.15 GRADATION ACCEPTANCE OF NON-SPECIFICATION COARSE AGGREGATE. AGGREGATE SIZE USE Cement Concrete Structures and Incidental Construction Replace “9-M for Waterproofing Overlays” with “8 or 9-M for Waterproofing Overlays”																																							

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SUBSECTION: 805.15 GRADATION ACCEPTANCE OF NON-SPECIFICATION COARSE AGGREGATE.
REVISION: Replace the "SIZES OF COARSE AGGREGATES" table in with the following:

Aggregate Size		AMOUNTS FINER THAN EACH LABORATORY SIEVE (SQUARE OPENINGS) PERCENTAGE BY WEIGHT																
		Sieve	4 inch	3 1/2 inch	3 inch	2 1/2 inch	2 inch	1 1/2 inch	1 inch	3/4 inch	1/2 inch	3/8 inch	No. 4	No. 8	No. 16	No. 30	No. 100	No. 200
1	Nominal ⁽³⁾ Maximum Aggregate Size	3 1/2 inch	100	90-100		25-60		0-15		0-5								
2		2 1/2 inch			100	90-100	35-70	0-15		0-5								
23		2 inch			100	40-90		0-15			0-5							
3		2 inch				90-100	35-70	0-15			0-5							
357		2 inch				95-100		35-70			10-30		0-5					
4		1 1/2 inch				100	90-100	20-55	0-15			0-5						
467		1 1/2 inch				100	95-100	35-70			10-30	0-5						
5		1 inch				100	90-100	20-55	0-10		0-5							
57		1 inch				100	95-100		25-60			0-10	0-5					
610		1 inch				100	85-100		40-75			15-40						
67		3/4 inch						100	90-100		20-55	0-10	0-5					
68		3/4 inch						100	90-100		30-65	5-25	0-10	0-5				
710		3/4 inch						100	80-100		30-75	0-30						
78		1/2 inch							100	90-100	40-75	5-25	0-10	0-5				
8		3/8 inch							100	85-100	10-30	0-10	0-5					
9-M		3/8 inch							100	75-100	0-25	0-5						
10 ⁽²⁾		No. 4									100	85-100				10-30		
11 ⁽²⁾		No. 4									100	40-90	10-40			0-5		
DENSE GRADED AGGREGATE ⁽¹⁾		3/4 inch						100	70-100		50-80	30-65			10-40		4-13	
CRUSHED STONE BASE ⁽¹⁾		1 1/2 inch				100			60-95		30-70	15-55			5-20		0-8	

⁽¹⁾ Gradation performed by wet sieve KM 64-620 or AASHTO T 11/T 27.

⁽²⁾ Sizes shown for convenience and are not to be considered as coarse aggregates.

⁽³⁾ Nominal Maximum Size is the largest sieve on the gradation table for an aggregate size on which any material may be retained.

Note: The Department will allow blending of same source/same type aggregate when precise procedures are used such as cold feed, belt, or equivalent and combining of sizes or types of aggregate using the weigh hopper at concrete plants or controlled feed belts at the pugmill to obtain designated sizes.

**Supplemental Specifications to The Standard Specifications
 for Road and Bridge Construction, 2008 Edition**
 (Effective with the July 24, 2009 Letting)

SUBSECTION: REVISION:	805.16 SAMPLING AND TESTING. Replace the "AASHTO T 160" method with the "KM 64-629" method for the Concrete Beam Expansion Test. Replace the "ASTM D 3042" method with the "KM 64-625" method for Insoluble Residue.						
SUBSECTION: REVISION:	810.04.01 Coating Requirements. Replace the "Subsection 806.07" references with "Subsection 806.06"						
SUBSECTION: PART: REVISION:	810.06.01 Polyvinyl Chloride (PVC) Pipe. B) Culvert and Entrance Pipe. Replace the title with the following: B) Culvert Pipe, Storm Sewer, and Entrance Pipe.						
SUBSECTION: REVISION:	837.03 APPROVAL. Replace the last sentence with the following: The Department will sample and evaluate for approval each lot of thermoplastic material delivered for use per contract prior to installation of the thermoplastic material. Do not allow the installation of thermoplastic material until it has been approved by the Division of Materials. Allow the Department a minimum of 10 working days to evaluate and approve thermoplastic material.						
SUBSECTION: REVISION:	837.03.01 Composition. COMPOSITION Table: Replace <table border="1" data-bbox="389 903 1291 955"> <tr> <td>Lead Chromate</td> <td>0.0 max.</td> <td>4.0 min.</td> </tr> </table> with <table border="1" data-bbox="389 955 1291 997"> <tr> <td>Heavy Metals Content</td> <td colspan="2">Comply with 40 CFR 261</td> </tr> </table>	Lead Chromate	0.0 max.	4.0 min.	Heavy Metals Content	Comply with 40 CFR 261	
Lead Chromate	0.0 max.	4.0 min.					
Heavy Metals Content	Comply with 40 CFR 261						
SECTION: REVISION:	DIVISION 800 MATERIAL DETAILS Add the following section in Division 800 <p align="center">SECTION 846 – DURABLE WATERBORNE PAINT</p> <p>846.01 DESCRIPTION. This section covers quick-drying durable waterborne pavement striping paint for permanent applications. The paint shall be ready-mixed, one-component, 100% acrylic waterborne striping paint suitable for application on such traffic-bearing surfaces as Portland cement concrete, bituminous cement concrete, asphalt, tar, and previously painted areas of these surfaces.</p> <p>846.02 Approval. Select materials that conform to the composition requirements below. Provide independent analysis data and certification for each formulation stating the total concentration of each heavy metal present, the test method used for each determination, and compliance to 40 CFR 261 for leachable heavy metals content. Submit initial samples for approval before beginning striping operations. The initial sample may be sent from the manufacture of the paint. The Department will randomly sample and evaluate the paint each week that the striping operations are in progress.</p> <p>The non-volatile portion of the vehicle shall be composed of a 100% acrylic polymer as determined by infrared spectral analysis. The acrylic resin used shall be a 100% cross-linking acrylic as evidenced by infrared peaks at wavelengths 1568, 1624, and 1672 cm-1 with intensities equal to those produced by an acrylic resin known to be 100% cross-linking.</p>						

**Supplemental Specifications to The Standard Specifications
 for Road and Bridge Construction, 2008 Edition**
 (Effective with the July 24, 2009 Letting)

PAINT COMPOSITION		
Property and Test Method	Yellow	White
Daytime Color (CIELAB) Spectrophotometer using illuminant D65 at 45° illumination and 0° viewing with a 2° observer	L* 81.76 a* 19.79 b* 89.89 Maximum allowable variation 2.0ΔE*	L* 93.51 a* -1.01 b* 0.70 Maximum allowable variation 2.0ΔE*
Nighttime Color (CIELAB) Spectrophotometer using illuminant A at 45° illumination and 0° viewing with a 2° observer	L* 86.90 a* 24.80 b* 95.45 Maximum allowable variation 2.0ΔE*	L* 93.45 a* -0.79 b* 0.43 Maximum allowable variation 2.0ΔE*
Heavy Metals Content	Comply with 40 CFR 261	Comply with 40 CFR 261
Titanium Dioxide ASTM D 4764	NA	10% by weight of pigment min.
VOC ASTM D 2369 and D 4017	1.25 lb/gal max.	1.25 lb/gal max.
Contrast Ratio (at 15 mils wft)	0.97	0.99

846.02.01 Manufacturers Certification. Provide a certification of analysis for each lot of traffic paint produced stating conformance to the requirements of this section. Report the formulation identification, traffic paint trade name, color, date of manufacturer, total quantity of lot produced, actual quantity of traffic paint represented, sampling method utilized to obtain the samples, and data for each sample tested to represent each lot produced.

846.03 ACCEPTANCE PROCEDURES FOR NON-SPECIFICATION DURABLE WATERBORNE PAVEMENT STRIPING PAINT. When non-specification paint is inadvertently incorporated into the work the Department will accept the material with a reduction in pay. The percentage deduction is cumulative based on its compositional properties, but will not exceed 60 percent. The Department will calculate the payment reduction on the unit bid price for the routes where the non-specification paint was used.

DURABLE WATERBORNE PAVEMENT STRIPING PAINT REDUCTION SCHEDULE						
Non-conforming Property	Resin	Color	Contrast	TiO₂	VOC	Heavy Metals Content
Reduction Rate	60%	10%	10%	10%	60%	60%

STANDARD DRAWINGS THAT APPLY

MISCELLANEOUS STANDARDS PART 1	RGX-001-05
APPROACHES, ENTRANCES, AND MAIL BOX TURNOUT	RPM-110-05
LANE CLOSURE TWO-LANE HIGHWAY CASE I.....	TTC-100-01
LANE CLOSURE TWO-LANE HIGHWAY CASE II.....	TTC-105-01
SHOULDER CLOSURE.....	TTC-135-01
POST SPLICING DETAIL	TTD-110-01

PIPE DIA. (IN)	PIPE TYPE	CIRCULAR PIPE COVER HEIGHTS IN FEET						PIPE DIA. (IN)	PIPE TYPE	CIRCULAR PIPE COVER HEIGHTS IN FEET						
		2-5	10-15	20-25	30-35	40-45	50-55			60-65	2-5	10-15	20-25	30-35	40-45	50-55
12 & 15	2 3/4" x 1/2" CSPHS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	2 3/4" x 1/2" CSPHS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.
	2 3/4" x 1/2" CSPLS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	2 3/4" x 1/2" CSPLS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.
	2 3/4" x 1/2" CAPHS	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	2 3/4" x 1/2" CAPHS	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.
	PVC	SMOOTH WALL (SOLID WALL)						SRS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.
	HDPE							SRA	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.
18	RCP (11)	FF	FF	FF	FF	FF	FF	HDPE	RIBBED (PROFILE WALL)							
	2 3/4" x 1/2" CSPHS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	2 3/4" x 1/2" CSPHS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.
	2 3/4" x 1/2" CSPLS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	2 3/4" x 1/2" CSPLS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.
	2 3/4" x 1/2" CAPHS	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	2 3/4" x 1/2" CAPHS	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.
	SRS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	SRA	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.
21	PVC							PVC	RIBBED (PROFILE WALL)							
	HDPE							HDPE								
	RCP (11)	FF	FF	FF	FF	FF	FF	RCP (11)	FF	FF	FF	FF	FF	FF	FF	FF
	2 3/4" x 1/2" CSPHS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	2 3/4" x 1/2" CSPHS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.
	2 3/4" x 1/2" CSPLS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	2 3/4" x 1/2" CSPLS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.
24	2 3/4" x 1/2" CAPHS	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	2 3/4" x 1/2" CAPHS	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.
	SRS (1)	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	SRA	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.	16 GA.
	PVC							PVC	RIBBED (PROFILE WALL)							
	HDPE							HDPE								
	RCP (11)	FF	FF	FF	FF	FF	FF	RCP (11)	FF	FF	FF	FF	FF	FF	FF	FF

NOTES

- GAGES FOR CORRUGATED STEEL PIPE ITEMS SHOWN ARE BASED ON ALUMINUM-COATED TYPE 2 STEEL AS PER AASHTO M-274. ALUMINUM COATED TYPE 2 STEEL IS ONLY PERMITTED IN PH RANGES OF 5 TO 9
- WHEN CORRUGATED STEEL PIPE IS ZINC COATED (GALVANIZED) THE GAGE SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLES.
- CSP, CAP, SRS AND SRA ARE SHOWN IN GAGE.
- MAXIMUM COVER HEIGHT MEASURED FROM TOP OF PIPE TO SUBGRADE ELEVATION SHALL GOVERN GAGE OF PIPE TO BE USED FOR ENTIRE LENGTH OF PIPE INSTALLATION.
- MINIMUM COVER HEIGHTS FOR PIPE SHALL BE 2 FEET. GAGE OF PIPE FOR COVER HEIGHTS LESS THAN 2 FEET SHALL BE THAT SHOWN FOR COVER HEIGHTS OF 30 FEET (SEE STD. SPECIFICATIONS FOR BACKFILL). HDPE AND PVC SHALL NOT BE PERMITTED FOR COVER HEIGHTS LESS THAN 2 FEET.
- 24" DIA. PIPE IS MINIMUM SIZE FOR COVER HEIGHTS FROM 30 FEET TO 65 FEET.
- MINIMUM COVER HEIGHT FOR ENTRANCE PIPE SHALL BE 0.5 FEET.
- GAGE OF ENTRANCE PIPE FOR COVER HEIGHTS LESS THAN 2 FEET SHALL MEET THE FOLLOWING REQUIREMENTS:
 - GAGE OF CSP SHALL BE THAT SHOWN FOR HEIGHTS OF 30 FEET.
 - GAGE OF CAP SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLE.
- ALL CIRCULAR STRUCTURAL PLATE SHALL BE 5% VERTICALLY ELONGATED.
- SEE CURRENT STANDARD DRAWING RDI-035 FOR COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PIPE.
- SEE DETAIL SHEET "PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER REINFORCED CONC. PIPE" AND DETAIL SHEET "PIPE BEDDING TRENCH CONDITION REINFORCED CONC. PIPE" FOR RCP COVER HEIGHT AND BEDDING REQUIREMENTS.

LEGEND

- CSPHS: CORRUGATED STEEL PIPE WITH HELICAL LOCK SEAM OR HELICAL WELDED SEAM (HELICAL CORR.)
- CSPLS: CORRUGATED STEEL PIPE WITH LONGITUDINAL RIVETED OR SPOT WELDED SEAM (ANNULAR CORR.)
- CAPHS: CORRUGATED ALUMINUM ALLOY PIPE WITH HELICAL LOCK SEAM (HELICAL CORR.)
- HDPE: HIGH DENSITY POLYETHYLENE PIPE
- PVC: POLYVINYL CHLORIDE
- SRS: SPIRAL RIB STEEL
- SRA: SPIRAL RIB ALUMINUM
- RCP: CIRCULAR REINFORCED CONCRETE PIPE
- FF: FLOWABLE FILL REQUIRED

KENTUCKY
DEPARTMENT OF HIGHWAYS

CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS

APPROVED _____ DATE **04-25-08**
000

COUNTY OF	ITEM NO.	SHEET NO.

LEGEND

- CSPHS: CORRUGATED STEEL PIPE WITH HELICAL LOCK SEAM OR HELICAL WELDED SEAM (HELICAL CORR.)
- CSPLS: CORRUGATED STEEL PIPE WITH LONGITUDINAL RIVETED OR SPOT WELDED SEAM (ANNULAR CORR.)
- CAPHS: CORRUGATED ALUMINUM ALLOY PIPE WITH HELICAL LOCK SEAM (HELICAL CORR.)
- HDPE: HIGH DENSITY POLYETHYLENE PIPE
- PVC: POLYVINYL CHLORIDE
- SRS: SPIRAL RIB STEEL
- SRA: SPIRAL RIB ALUMINIUM
- RCP: CIRCULAR REINFORCED CONCRETE PIPE
- FF: FLOWABLE FILL REQUIRED

NOTES CONTINUED

- ⑩ SEE DETAIL SHEET "PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER REINFORCED CONC. PIPE" AND DETAIL SHEET "PIPE BEDDING TRENCH CONDITION REINFORCED CONC. PIPE" FOR RCP COVER HEIGHT AND BEDDING REQUIREMENTS.

PIPE DIA. (IN)	PIPE TYPE	CIRCULAR PIPE COVER HEIGHTS IN FEET											
		2-5	10-15	20-25	30-35	40-45	45-50	50-55	55-60	60-65			
27 & 30 ⑧	2 7/8" x 1/2" CSPHS(1)	16 GA.											
	2 7/8" x 1/2" CSPLS(1)	16 GA.											
	2 7/8" x 1/2" CAPHS	16 GA.											
	SRS (1)	14 GA.											
	SRA	14 GA.											
	PVC	RIBBED (PROFILE WALL)											
	HDPE	RIBBED (PROFILE WALL)											
	RCP (10)	FF											
		Hatched Area											
		Hatched Area											
36	2 7/8" x 1/2" CSPHS(1)	14 GA.											
	2 7/8" x 1/2" CSPLS(1)	14 GA.											
	2 7/8" x 1/2" CAPHS	14 GA.											
	SRS (1)	14 GA.											
	SRA	14 GA.											
	PVC	RIBBED (PROFILE WALL)											
	HDPE	RIBBED (PROFILE WALL)											
	RCP (10)	FF											
		Hatched Area											
		Hatched Area											
42	2 7/8" x 1/2" CSPHS(1)	14 GA.											
	2 7/8" x 1/2" CSPLS(1)	14 GA.											
	2 7/8" x 1/2" CAPHS	14 GA.											
	SRS (1)	14 GA.											
	SRA	14 GA.											
	PVC	RIBBED (PROFILE WALL)											
	HDPE	RIBBED (PROFILE WALL)											
	RCP (10)	FF											
		Hatched Area											
		Hatched Area											

NOTES

- ① GAGES FOR CORRUGATED STEEL PIPE ITEMS SHOWN ARE BASED ON ALUMINUM-COATED TYPE 2 STEEL AS PER AASHTO M-274. ALUMINUM COATED TYPE 2 STEEL IS ONLY PERMITTED IN PH RANGES OF 5 TO 9.
- ② WHEN CORRUGATED STEEL PIPE IS ZINC COATED (GALVANIZED) THE GAGE SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLES.
- ③ SEE CURRENT STANDARD DRAWING RDI-001 FOR EXPLANATION OF COVER HEIGHTS LESS THAN 2 FEET.
- ④ CSP, CAP, SRS AND SRA ARE SHOWN IN GAGE.
- ⑤ MAXIMUM COVER HEIGHT MEASURED FROM TOP OF PIPE TO SUB GRADE ELEVATION SHALL GOVERN GAGE OF PIPE TO BE USED FOR ENTIRE LENGTH OF PIPE INSTALLATION.
- ⑥ MINIMUM COVER HEIGHT FOR ENTRANCE PIPE SHALL BE 0.5 FEET.
- ⑦ ALL CIRCULAR STRUCTURAL PLATE SHALL BE 5% VERTICALLY ELONGATED.
- ⑧ ENTRANCE PIPE GREATER THAN 30" DIA. SHALL BE CULVERT PIPE.
- ⑨ SEE CURRENT STANDARD DRAWING RDI-035 FOR COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PIPE.

27" PIPE - 42" PIPE

KENTUCKY
DEPARTMENT OF HIGHWAYS

CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS

APPROVED _____ DATE **04-25-08** **06**

COUNTY OF	ITEM NO.	SHEET NO.

CIRCULAR PIPE COVER HEIGHTS IN FEET (3)

PIPE DIA. (IN)	PIPE TYPE	COVER HEIGHTS IN FEET																							
		2-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100-105	105-110	110-115	115-120
48	2 7/8" x 1/2" CSPHS (1)	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.
	2 7/8" x 1/2" CSPLS (1)	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.
	2 7/8" x 1/2" CAPHS	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.
	SRS (1)	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.
	SRA	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.
	PVC	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.
	HDPE	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.
	RCP (9)	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.
	RIBBED (PROFILE WALL)	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.
54	2 7/8" x 1/2" CSPHS (1)	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.
	2 7/8" x 1/2" CSPLS (1)	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.
	3" x 1" CSPHS (1)	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.
	3" x 1" CSPLS (1)	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.
	5" x 1" CSPHS (1)	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.
	5" x 1" CSPLS (1)	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.
	2 7/8" x 1/2" CAPHS	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.	10 GA.
	3" x 1" CAPHS	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.
	SRS (1)	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.	14 GA.
(7)	SRA	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.
	RCP (9)	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.
		12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.	12 GA.

LEGEND

CSPHS: CORRUGATED STEEL PIPE WITH HELICAL LOCK SEAM OR HELICAL WELDED SEAM (HELICAL CORR.)

CSPLS: CORRUGATED STEEL PIPE WITH LONGITUDINAL RIVETED OR SPOT WELDED SEAM (ANNULAR CORR.)

CAPHS: CORRUGATED ALUMINUM ALLOY PIPE WITH HELICAL LOCK SEAM (HELICAL CORR.)

HDPE: HIGH DENSITY POLYETHYLENE PIPE

PVC: POLYVINYL CHLORIDE

SRS: SPIRAL RIB STEEL

SRA: SPIRAL RIB ALUMINUM

RCP: CIRCULAR REINFORCED CONCRETE PIPE

48" PIPE - 54" PIPE

NOTES

- GAGES FOR CORRUGATED STEEL PIPE ITEMS SHOWN ARE BASED ON ALUMINUM-COATED TYPE 2 STEEL AS PER AASHTO M-274. ALUMINUM COATED TYPE 2 STEEL IS ONLY PERMITTED IN PH RANGES OF 5 TO 9.
- WHEN CORRUGATED STEEL PIPE IS ZINC COATED (GALVANIZED) THE GAGE SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLES.
- SEE CURRENT STANDARD DRAWING RDI-001 FOR EXPLANATION OF COVER HEIGHTS LESS THAN 2 FEET.
- CSP, CAP, SRS AND SRA ARE SHOWN IN GAGE.
- MAXIMUM COVER HEIGHT MEASURED FROM TOP OF PIPE TO SUBGRADE ELEVATION SHALL GOVERN GAGE OF PIPE TO BE USED FOR ENTIRE LENGTH OF PIPE INSTALLATION.
- ALL CIRCULAR STRUCTURAL PLATE SHALL BE 5% VERTICALLY ELONGATED.
- 54" DIA. PIPE IS MINIMUM SIZE FOR COVER HEIGHTS GREATER THAN 65 FEET.
- SEE CURRENT STANDARD DRAWING RDI-035 FOR COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PIPE.
- SEE DETAIL SHEET "PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER REINFORCED CONC. PIPE" AND DETAIL SHEET "PIPE BEDDING TRENCH CONDITION REINFORCED CONC. PIPE" FOR RCP COVER HEIGHT AND BEDDING REQUIREMENTS.

KENTUCKY
DEPARTMENT OF HIGHWAYS

CULVERT &
STORM SEWER PIPE TYPES
& COVER HEIGHTS

APPROVED _____
DATE 04-25-08

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** or by phone at 502-564-2874.

**TRANSPORTATION CABINET
 DIVISION OF CONSTRUCTION PROCUREMENT
 COMPLIANCE SECTION
 PROJECT WAGE RATES**

	BASIC HOURLY RATES	FRINGE BENEFIT PAYMENTS COMBINED
<u>CRAFTS:</u>		
Boilermakers	24.65	12.94
Bricklayers.....	20.35	7.80
Stone Mason.....	18.95	7.80
Carpenters	20.60	8.30
Cement Masons	18.70	7.80
Electricians	*26.36	10.04

*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.

Ironworkers: Structural.....	20.70	8.30
Ironworkers: Reinforcing	20.50	8.30
Painters:		
All Excluding Bridges	19.92	9.57
Bridges	23.92	10.07
Piledrivers.....	20.25	8.30
Plumbers.....	22.52	7.80
Sheet Metal	20.40	7.80
Welders- Receive rate for craft in which welding is incidental.		

LABORERS:

General Laborer, Flagman, Steam Jenny.	BASE RATE	18.65
	FRINGE BENEFITS	8.30

Batch Truck Dumper, Deck Hand or Scow Man, Hand Blade Operator.	BASE RATE	18.90
	FRINGE BENEFITS	8.30

**TRANSPORTATION CABINET
DIVISION OF CONSTRUCTION PROCUREMENT
COMPLIANCE SECTION
PROJECT WAGE RATES**

LABORERS: (continued)

Power Driven Tool Operator of the following: Wagon Drill, Chain Saw, Sand Blaster, Concrete Chipper, Pavement Breaker, Vibrator, Power Wheelbarrow, Power Buggy, Sewer Pipe Layer, Bottom Men, Dry Cement Handler, Concrete Rubber, Mason Tender.

BASE RATE 19.00
FRINGE BENEFITS 8.30

Asphalt Lute and Rakerman, Side Rail Setter.

BASE RATE 19.05
FRINGE BENEFITS 8.30

Gunnite Nozzle Man, Gunnite Operator.

BASE RATE 19.15
FRINGE BENEFITS 8.30

Tunnel Laborer (Free Air).

BASE RATE 19.20
FRINGE BENEFITS 8.30

Tunnel Mucker (Free Air).

BASE RATE 19.25
FRINGE BENEFITS 8.30

Tunnel Miner, Blaster and Driller (Free Air).

BASE RATE 19.60
FRINGE BENEFITS 8.30

Caisson Worker

BASE RATE 20.15
FRINGE BENEFITS 8.30

Powderman

BASE RATE 20.25
FRINGE BENEFITS 8.30

Drill Operator of Percussion type Drills which are both powered and propelled by an independent air supply.

BASE RATE 21.45
FRINGE BENEFITS 8.30

**TRANSPORTATION CABINET
DIVISION OF CONSTRUCTION PROCUREMENT
COMPLIANCE SECTION
PROJECT WAGE RATES**

TRUCK DRIVERS AND RELATED CLASSIFICATIONS:

Truck helper and Warehouseman.	BASE RATE 18.90 FRINGE BENEFITS 8.30
Driver, Winch Truck and A-Frame when used in transporting materials.	BASE RATE 19.00 FRINGE BENEFITS 8.30
Driver (Semi-Trailer or Pole Trailer), Driver (Dump Truck, Tandem Axle), Driver of Distributor.	BASE RATE 19.10 FRINGE BENEFITS 8.30
Driver on Mixer Trucks (All Types).	BASE RATE 19.15 FRINGE BENEFITS 8.30
Truck Mechanic	BASE RATE 19.20 FRINGE BENEFITS 8.30
Driver (3 tons and under), Tire Changer and Truck Mechanic Helper.	BASE RATE 19.23 FRINGE BENEFITS 8.30
Driver on Pavement Breakers.	BASE RATE 19.25 FRINGE BENEFITS 8.30
Driver (over 3 tons), Driver (Truck Mounted Rotary Drill).	BASE RATE 19.44 FRINGE BENEFITS 8.30
Driver, Euclid and other Heavy Earth Moving Equipment and Low Boy.	BASE RATE 20.01 FRINGE BENEFITS 8.30
Greaser on Greasing Facilities.	BASE RATE 20.10 FRINGE BENEFITS 8.30

**TRANSPORTATION CABINET
DIVISION OF CONSTRUCTION PROCUREMENT
COMPLIANCE SECTION
PROJECT WAGE RATES**

OPERATING ENGINEERS:

GROUP A:

Auto Patrol, Batch Plant, Bituminous Paver, Cable-Way, Clamshell, Concrete Mixer (21 cu. ft. or over), Concrete Pump, Crane, Crusher Plant, Derrick, Derrick Boat, Ditching and Trenching Machine, Dragline, Dredge Engineer, Elevator (regardless of ownership when used for hoisting any building material), Elevating Grader and all types of Loaders, Hoe-Type Machine, Hoisting Engine, Locomotive, LeTourneau or Carry-All Scoop, Bulldozer, Mechanic, Orangepeel Bucket, Piledriver, Power Blade, Roller (Bituminous), Roller (Earth), Roller (Rock), Scarifier, Shovel, Tractor Shovel, Truck Crane, Well Points, Winch Truck, Push Dozer, Grout Pump, High Lift, Fork Lift (regardless of lift height), all types of Boom Cats, Multiple Operator, Core Drill, Tow or Push Boat, A-Frame Winch Truck, Concrete Paver, Gradeall, Hoist, Hyster, Material Pump, Pumpcrete, Ross Carrier, Sheep Foot, Sideboom, Throttle-Valve Man, Rotary Drill, Power Generator, Mucking Machine, Rock Spreader attached to equipment, Scoopmobile, KeCal Loader, Tower Cranes (French, German and other types), Hydrocrane, Tugger, Backfiller, Gurries, Self-Propelled Compactor, Self-Contained Hydraulic Percussion Drill.

BASE RATE 23.30
FRINGE BENEFITS 8.30

GROUP B:

All Air Compressors (200 cu. ft. per min. or greater capacity), Bituminous Mixer, Concrete Mixer (under 21 cu. ft.), Welding Machine, Form Grader, Tractor (50 H.P. and over), Bull Float, Finish Machine, Outboard Motor Boat, Brakeman, Mechanic Helper, Whirley Oiler, Tractair and Road Widening Trencher, Articulating Trucks.

BASE RATE 20.40
FRINGE BENEFITS 8.30

GROUP B2:

Greaser on grease facilities servicing heavy equipment.

BASE RATE 20.60
FRINGE BENEFITS 8.30

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.

BASE RATE 19.99
FRINGE BENEFITS 8.30

**TRANSPORTATION CABINET
DIVISION OF CONSTRUCTION PROCUREMENT
COMPLIANCE SECTION
PROJECT WAGE RATES**

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-07-II HWY dated July 3, 2008. Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

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

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

**TRANSPORTATION CABINET
DIVISION OF CONSTRUCTION PROCUREMENT
COMPLIANCE SECTION
PROJECT WAGE RATES**

TO: EMPLOYERS/EMPLOYEES

PREVAILING WAGE SCHEDULE:

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

OVERTIME:

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

Ryan Griffith, Director
Division of Construction Procurement
Frankfort, Kentucky 40622

PART IV
INSURANCE

INSURANCE

The Contractor shall carry the following insurance in addition to the insurance required by law:

1. Contractor's Public Liability Insurance not less than \$100,000.00 for damages arising out of bodily injuries to or death to one person. Not less than \$300,000.00 for damages arising out of bodily injuries to or death to two or more persons.
2. Contractor's Property Damages Liability Insurance. Not less than \$100,000.00 for all damages arising out of injury or destruction of property in any one accident. Not less than \$300,000.00 for all damages during the policy period.
3. Contractor's Protective Public Liability and Property Damage Insurance. The contractor shall furnish evidence with respect to operations performed for him by subcontractors that he carries in his own behalf for the above stipulated amounts.
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. 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.

PART V
BID ITEMS

CONTRACT ID: 092233
 COUNTY: BREATHITT
 PROPOSAL: FD51 013 3324 000-003

PAGE: 1
 LETTING: 07/24/09
 CALL NO: 320

LINE NO	ITEM	DESCRIPTION	APPROXIMATE QUANTITY	UNIT	UNIT PRICE	AMOUNT
SECTION 0001 ROADWAY						
0010	00071	CRUSHED AGGREGATE SIZE NO 57	14.000	TON		
0020	00301	CL2 ASPH SURF 0.38D PG64-22	462.000	TON		
0030	00462	CULVERT PIPE-18 IN	30.000	LF		
0040	02014	BARRICADE-TYPE III	2.000	EACH		
0050	02200	ROADWAY EXCAVATION	669.000	CUYD		
0060	02237	DITCHING	11,885.000	LF		
0070	02562	SIGNS	150.000	SQFT		
0080	02599	FABRIC-GEOTEXTILE TYPE IV	1,640.000	SQYD		
0090	02650	MAINTAIN & CONTROL TRAFFIC	(1.00)	LS		
0100	02726	STAKING	(1.00)	LS		
0110	03234	RAILROAD RAILS-DRILLED	6,510.000	LF		
0120	03235	EXCAVATION AND BACKFILL	620.000	CUYD		
0130	03236	CRIBBING	5,535.000	SQFT		
SECTION 0002 DEMOBILIZATION						
0140	02569	DEMOBILIZATION (AT LEAST 1.5%)		LUMP		
		TOTAL BID				