

CALL NO. <u>311</u> CONTRACT ID. <u>122417</u> <u>BOYLE COUNTY</u> FED/STATE PROJECT NUMBER <u>CB01 011 1822 003-004</u> DESCRIPTION <u>PARKSVILLE CROSSPIKE (KY 1822)</u> WORK TYPE <u>CULVERT REPLACEMENT</u> PRIMARY COMPLETION DATE <u>9/15/2012</u>

LETTING DATE: May 18, 2012

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME May 18, 2012. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

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

TABLE OF CONTENTS

PART I SCOPE OF WORK

- PROJECT(S), COMPLETION DATE(S), & LIQUIDATED DAMAGES
- CONTRACT NOTES
- STATE CONTRACT NOTES
- EXPEDITE WORK ORDER
- ASPHALT MIXTURE
- DGA BASE
- INCIDENTAL SURFACING
- COMPACTION OPTION B
- SPECIAL NOTE(S) APPLICABLE TO PROJECT
- LIQUIDATED DAMAGES
- WASTE AND BORROW SITES
- ASPHALT MIXTURE FOR PAVEMENT WEDGE
- EDGE KEY
- GUARDRAIL
- TYPICAL SECTION DIMENSIONS
- TRAFFIC CONTROL PLAN
- EROSION CONTROL PLAN FOR MAINTENANCE PROJECTS
- UTILITY CLEARANCE
- SKETCH MAP(S)
- TYPICAL SECTION(S)
- DETAIL SHEET(S)

PART II SPECIFICATIONS AND STANDARD DRAWINGS

- SPECIFICATIONS REFERENCE
- SUPPLEMENTAL SPECIFICATIONS
- [SN-11] PORTABLE CHANGEABLE SIGNS
- [SN-9V] ALUMINUM & STEEL STRUCTURAL PLATE BOX CULVERT
- 2008 STANDARD DRAWINGS THAT APPLY
- DELINEATORS FOR GUARDRAIL

PART III EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

- LABOR AND WAGE REQUIREMENTS
- EXECUTIVE BRANCH CODE OF ETHICS
- KENTUCKY EQUAL EMPLOYMENT OPPORTUNITY ACT OF 1978
- PROJECT WAGE RATES
- PART IV INSURANCE
- PART V BID ITEMS

PART I

SCOPE OF WORK

CONTRACT ID - 122417 ADMINISTRATIVE DISTRICT - 07

PROJECT(S) IDENTIFICATION AND DESCRIPTION:

COUNTY - BOYLE PCN - MP01118221201 CB01 011 1822 003-004 PARKSVILLE CROSSPIKE (KY 1822) FROM 100' WEST OF THE CULVERT AT MP 3.472 (MP 3.452) EXTENDING TO 100' EAST OF THE CULVERT AT MP 3.472 (MP 3.493), A DISTANCE OF 0.04 MILES. CULVERT REPLACEMENT. GEOGRAPHIC COORDINATES LATITUDE 37^36'56" LONGITUDE 84^52'49" AVERAGE DAILY TRAFFIC - 610 AVERAGE MAINLINE WIDTH - 17.0 FEET

COMPLETION DATE(S): COMPLETION DATE - September 15, 2012 APPLIES TO ENTIRE CONTRACT

> COMPLETION DATE - August 12, 2012 APPLIES TO ROAD CLOSURE

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 Bid Express website (www.bidx.com) to prepare a bid packet for submission to the Department. The bidder must submit electronically using Bid Express.

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

The contractor 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.

<u>REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN</u> <u>ENTITY</u>

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

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

The questions and answers will be posted for each Letting under the heading "Questions & Answers" on the Construction Procurement website

(<u>www.transportation.ky.gov/contract</u>). The answers provided shall be considered part of this Special Note and, in case of a discrepancy, will govern over all other bidding documents.

ACCESS TO RECORDS

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

In the event of a dispute between the contractor and the contracting agency, Attorney General, or the Auditor of Public Accounts over documents that are eligible for

production and review, the Finance and Administration Cabinet shall review the dispute and issue a determination, in accordance with Secretary's Order 11-004. (See attachment)

10/18/2011

Steven L. Beshear

Governor



Commonwealth of Kentucky Finance and Administration Cabinet

OFFICE OF THE SECRETARY Room 383, Capitol Annex 702 Capital Avenue Frankfort, KY 40601-3462 (502) 564-4240 Fax (502) 564-6785 Lori H. Flanery Secretary

SECRETARY'S ORDER 11-004

FINANCE AND ADMINISTRATION CABINET

Vendor Document Disclosure

WHEREAS, in order to promote accountability and transparency in governmental operations, the Finance and Administration Cabinet believes that a mechanism should be created which would provide for review and assistance to an Executive Branch agency if said agency cannot obtain access to documents that it deems necessary to conduct a review of the records of a private vendor that holds a contract to provide goods and/or services to the Commonwealth; and

WHEREAS, in order to promote accountability and transparency in governmental operations, the Finance and Administration Cabinet believes that a mechanism should be created which would provide for review and assistance to an Executive Branch agency if said agency cannot obtain access to documents that it deems necessary during the course of an audit, investigation or any other inquiry by an Executive Branch agency that involves the review of documents; and

WHEREAS, KRS 42.014 and KRS 12.270 authorizes the Secretary of the Finance and Administration Cabinet to establish the internal organization and assignment of functions which are not established by statute relating to the Finance and Administration Cabinet; further, KRS Chapter 45A.050 and 45A.230 authorizes the Secretary of the Finance and Administration Cabinet to procure, manage and control all supplies and services that are procured by the Commonwealth and to intervene in controversies among vendors and state agencies; and

NOW, THEREFORE, pursuant to the authority vested in me by KRS 42.014, KRS 12.270, KRS 45A.050, and 45A.230, I, Lori H. Flanery, Secretary of the Finance and Administration Cabinet, do hereby order and direct the following:

- I. Upon the request of an Executive Branch agency, the Finance and Administration Cabinet ("FAC") shall formally review any dispute arising where the agency has requested documents from a private vendor that holds a state contract and the vendor has refused access to said documents under a claim that said documents are not directly pertinent or relevant to the agency's inquiry upon which the document request was predicated.
- II. Upon the request of an Executive Branch agency, the FAC shall formally review any situation where the agency has requested documents that the agency deems necessary to



conduct audits, investigations or any other formal inquiry where a dispute has arisen as to what documents are necessary to conclude the inquiry.

- III. Upon receipt of a request by a state agency pursuant to Sections I & II, the FAC shall consider the request from the Executive Branch agency and the position of the vendor or party opposing the disclosure of the documents, applying any and all relevant law to the facts and circumstances of the matter in controversy. After FAC's review is complete, FAC shall issue a Determination which sets out FAC's position as to what documents and/or records, if any, should be disclosed to the requesting agency. The Determination shall be issued within 30 days of receipt of the request from the agency. This time period may be extended for good cause.
- IV. If the Determination concludes that documents are being wrongfully withheld by the private vendor or other party opposing the disclosure from the state agency, the private vendor shall immediately comply with the FAC's Determination. Should the private vendor or other party refuse to comply with FAC's Determination, then the FAC, in concert with the requesting agency, shall effectuate any and all options that it possesses to obtain the documents in question, including, but not limited to, jointly initiating an action in the appropriate court for relief.
- V. Any provisions of any prior Order that conflicts with the provisions of this Order shall be deemed null and void.

SPECIAL NOTE FOR RECIPROCAL PREFERENCE

Reciprocal preference to be given by public agencies to resident bidders

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

EXPEDITE PROJECT WORK ORDER

The Contractor may request that the Department expedite the work order for this project to allow for maximization of time to complete the work. In order for the Department to accomplish this task, the Contractor may be required to "hand carry" all required project documentation to facilitate the process. Immediately UPON NOTIFICATION OF AWARD OF THE CONTRACT, deliver required project documentation to:

Division of Construction Procurement 200 Mero St. Frankfort, KY 40602

ASPHALT MIXTURE

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

DGA BASE

Unless otherwise noted, the Department estimates the rate of application for DGA Base to be 115 lbs/sy per inch of depth.

INCIDENTAL SURFACING

The Department has included in the quantities of asphalt mixtures established in the proposal estimated quantities required for resurfacing or surfacing mailbox turnouts, farm field entrances, residential and commercial entrances, curve widening, ramp gores and tapers, and road and street approaches, as applicable. Pave these areas to the limits as shown on Standard Drawing RPM-110-05 or as directed by the Engineer. In the event signal detectors are present in the intersecting streets or roads, pave the crossroads to the right of way limit or back of the signal detector, whichever is the farthest back of the mainline. Surface or resurface these areas as directed by the Engineer. The Department will not measure placing and compacting for separate payment but shall be incidental to the Contract unit price for the asphalt mixtures.

OPTION B

Be advised that the Department will control and accept compaction of asphalt mixtures furnished on this project under OPTION B in accordance with Sections 402 and 403.

SPECIAL NOTES FOR CULVERT REPLACEMENT

I. DESCRIPTION

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

(1) Site preparation; (2) Removal of existing culvert; (2) Designing and Constructing Aluminum Box Culvert; (3) excavation, backfill, and embankments; (4) Restoring roadway, pavement, and shoulders; (5) Constructing guardrail and end treatments; (6) Maintaining and controlling traffic; and (7) 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. Unless specified otherwise in these notes, make the materials available for sampling a sufficient time in advance of the use of the materials to allow the necessary time for testing.

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

B. Erosion Control. See Special Notes for Erosion Control.

C. Embankment. Use Granular Embankment meeting the requirements of Section 805.10; however, natural or manufactured sand will not be allowed. Obtain the Engineer's approval of gradation prior to use.

D. Culvert. Furnish 3 sided Aluminum Box Culvert (no alternate) 14'-5" Span x 3'-3" Rise x 22.5', 0 Skew, Aluminum Full Invert with Toe Walls, Two (2) Aluminum Headwalls 1'-6" tall, and Four (4) Aluminum Wingwalls -9'-0" Long @ 90 degrees from the stream or parallel with the roadway. Contrary to Section 2.1.1 of Special Note 9V, provide for the structure to be designed by the manufacturer for an HS25 loading arrived at by increasing the standard HS20-44 truck and lane loads as specified in the AASHTO Specifications by 25% with a minimum fill cover height of 1.4 feet and a maximum fill cover height of 4 feet.

Prior to fabrication, submit to the Engineer and obtain approval of the manufacturer's shop drawings for the Aluminum Box Culvert prepared by a Professional Engineer licensed in Kentucky. Include with each shipment of the prefabricated sections and accessories a certification that all material furnished complies with the applicable specifications and these special notes.

E. Culvert Backfill. Backfill in accordance with Special Note 9V. Outside the culvert trench use Granular Embankment meeting the requirements of Section 805.10; however, natural or manufactured sand will not be allowed. Obtain the Engineer's approval of gradation prior to use.

F. Guardrail. No posts shall be driven above the structure. Guardrail shall span the structure with double-ply rail being used.

G. Surfacing and Shoulder Materials. Use DGA (do not furnish Crushed Stone Base in lieu of DGA) with Class 2 Asphalt Base 1.00D PG64-22 and Class 2 Asphalt Surface 0.38D PG64-22.

III. CONSTRUCTION METHODS

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

B. Erosion Control. See Special Notes for Erosion Control.

C. Site Preparation. Be responsible for all site preparation, including, but not limited to: clearing and grubbing; tree and stump removal; structure, common and solid rock excavation; embankment in place; removal of obstructions, or any other items; disposal of materials, waste, and debris; temporary fencing to provide positive barrier to adjacent property owners' livestock; cleaning inlet and outlet ditches; restoration, clean up, and final dressing. Limit clearing and grubbing to the absolute minimum required to construct the culvert, roadway approaches, and guardrail. Perform all site preparation only as approved or directed by the Engineer.

Prior to excavation and culvert removal, saw cut pavement to a neat edge and remove the existing culvert. Obtain the Engineer's approval of the trench width prior to saw cutting pavement. Close the road during the approved period allowed by the Traffic Control Plan and remove the existing culvert. Provide positive drainage of slopes and ditches at all times during and upon completion of construction. Waste all removed materials at sites off the right of way obtained by the Contractor at no additional cost to the Department (See Special Note for Waste and Borrow). Perform all excavation and removal of existing structure only as approved or directed by the Engineer.

Without regard to the materials encountered, all roadway, drainage, and special excavation shall be unclassified. It shall be distinctly understood that any reference to rock, earth, or any other material on the plans or cross sections, whether in numbers or words, letters, or lines, is solely for the Department's information and is not to be taken as an indication of classified excavation or the quantity of either rock, earth, or any other material involved. The bidder must draw his own conclusions as to the conditions to be encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be

considered for additional compensation if the materials encountered are not in accordance with the classification shown.

D. Excavation and Removal of Existing Structure. Be responsible for all excavation (structure, common, rock, and unclassified) required for foundation preparation, toe walls, and all other excavation required by the work. Completely remove the existing culvert, including masonry (stone and/or concrete) retaining walls. Excavate rock in channel as required to allow for construction of foundation and installation of culvert with the designed minimum fill cover height. Provide positive drainage of slopes and ditches at all times during and upon completion of construction. Waste all excavation at sites off the right of way obtained by the Contractor at no additional cost to the Department (see Special Note for Waste and Borrow). Perform all excavation only as approved or directed by the Engineer.

E. Culvert. Be responsible for field layout and survey of the proposed culvert. Remove structure excavation to solid rock and install culvert according to the manufacturers approved design. Construct headwalls, wing walls, and toe walls according to the manufacturer's approved design or as directed by the Engineer. Obtain the Engineer's approval of the final centerline, flow line, length, skew, and each wing wall alignment prior to backfilling. Provide for the manufacturer's technical representative to be available during construction of the footings, culvert, and backfill, and as requested by the Engineer. Provide positive drainage upon completion of the project. Backfill to subgrade elevation with materials as specified in Special Note 9V.

F. Embankments. Construct granular embankment. Warp finished slopes to match existing slopes and ditches. Provide positive drainage of slopes and ditches at all times during and upon completion of construction.

G. Pavement and Shoulder Restoration. After the structure has been constructed backfill with material in accordance with Special Note 9V to within 9.5" of the finished grade. Establish crown and final grade lines and construct two 4" lifts of asphalt base and a 1.5" lift of asphalt surface.

H. Guardrail. See Special Notes for Guardrail.

I. Final Dressing and Clean Up. After all work is completed, completely remove all waste and debris from the construction worksite. Backfill all excavated areas and compact as directed by the Engineer. Perform Class A Final Dressing on all disturbed areas, both on and off the right of way. Sow all disturbed earthen areas according to the Special Notes for Erosion Control.

J. On-Site Inspection. Make a thorough inspection of the site prior to submitting bid and be thoroughly familiar with existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will

consider submission of a bid as evidence of this inspection having been made. The Department will not consider any claims resulting from site conditions.

K. Right-of-Way Limits. The Department has not determined exact Right-of-Way limits. Limit work activities and operations to obvious Right-of-Way, Permanent or Temporary Easements, and work areas secured by the Department through consent and release of the adjacent property owners. Be responsible for encroachments onto private lands.

L. Utilities. Work around and do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. 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, the requirement in the Traffic Control Plan that road closures will not be allowed on days that Boyle County Schools are in regular session will not be waived.

M. Restoration. Be responsible for all damage to public and/or private property resulting from the work. Remove and replace all disturbed fences. Restore all damaged features in like kind materials and design.

N. Disposal of Waste. Dispose of all removed stone masonry, concrete and reinforcing steel, pavement, debris, excess excavation, and other waste off the right-of-way at sites obtained by the Contractor at no additional cost to the Department (see Special Note for Waste and Borrow).

O. Caution. Consider the information shown on the plans and the type of work listed herein as approximate only and do not take the information as an accurate evaluation of the materials and conditions to be encountered during construction; the bidder must draw his or her own conclusions. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for if the conditions encountered are not in accordance with the information shown.

P. Control. Perform all work under the absolute control of the Department of Highways. Obtain the Engineer's approval of all designs required to be furnished by the Contractor and design modifications proposed by the Contractor or Manufacturer prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces and to permit public utility companies and others to do work during the construction of and within the limits of, or adjacent to, the project. Conduct work activities and operations in cooperation with such other parties so that interference with such other work will be reduced to a minimum. The Department will consider

submission of a bid as Contractor's agreement to not make any claims for additional compensation due to delays or other conditions created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and his decision shall be final and binding upon the Contractor.

Q. Staking. See Special Note for Staking.

R. Coordination with State Forces. State forces will be completing work within the project limits. The Engineer will coordinate the work.

IV. METHOD OF MEASUREMENT

The Department will measure for payment only the bid items listed. All other items required to complete the construction shall be incidental to the bid items listed.

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

B. Erosion Control. See Special Notes for Erosion Control.

C. Site Preparation. Other than removing the existing structure, the Department will measure Site Preparation as one lump sum. Contrary to Special Note 9V Structure Excavation shall not be measured for payment and will be considered incidental.

D. Aluminum Box Culvert. The department will measured the Aluminum Box Culvert in linear feet along the culvert centerline less joint allowances. The Department will not measure culvert design or furnishing the manufacturer's technical representative for separate payment, but shall consider these to be incidental to the Aluminum Box Culvert.

E. Guardrail. See Special Notes for Guardrail.

V. BASIS OF PAYMENT

The Department will make payment only for the bid items listed. All other items required to complete the construction shall be incidental to the bid items listed.

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

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

C. Aluminum Box Culvert. Accept payment at the contract unit price per linear foot as full compensation for all materials, equipment, labor and incidentals necessary to complete the work as specified in these notes and the Standard Specifications for culvert design, furnishing and installing the culvert, wing walls, headwalls, toe walls, flowable fill, backfill, and furnishing the manufacturer's technical representative.

D. Site Preparation. Accept payment at the contract lump sum unit price as full compensation for all materials, equipment, labor, and incidentals, including, but not limited to clearing and grubbing; tree and stump removal; structure, common and solid rock excavation; embankment in place and granular embankment; removal of obstructions or any other items; disposal of materials, waste, and debris; temporary fencing to provide positive barrier to adjacent property owners livestock; cleaning inlet and outlet ditches; restoration, cleanup and final dressing.

SPECIAL NOTE FOR STAKING

In addition to the requirements of Section 201, perform the following:

- 1. Verify the culvert section and revise culvert alignment as necessary to provide proper alignment of culvert with stream channels and the roadway lines and grades, and provide positive drainage upon completion of construction; and
- 2. Establish pavement profiles, typical section cross slopes, superelevation, curve widening, crown, transitions and tapers, and intersection details to align the pavement restoration to match existing roadway alignment and curvature as required by the work and to insure positive drainage upon completion of the work; and
- 3. Produce and furnish to the Engineer "As Built" plans; and
- 4. Perform any and all other staking operations required to control and construct the work.

SPECIAL NOTE FOR ASPHALT MIXTURES USING RECLAIMED MATERIALS

** The Contractor may elect to use this Special Note in lieu of Section 409 of the 2008 Standard Specifications for Road and Bridge Construction. The Contractor must notify the Department in writing of which specification they plan to use prior to beginning work.

2012-409.01 DESCRIPTION. 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. For other sources to be approved, satisfactorily establish to the Engineer that the quality of the material is acceptable.

Use either pre-consumer (manufacturer waste or new) or post-consumer reclaimed asphalt shingles (RAS) that are processed such that all the material passes the 3/8-in. sieve. Ensure pre-consumer RAS is free of deleterious materials. Ensure post-consumer RAS does not contain more than 1.5 percent wood by mass or more than 3.0 percent deleterious materials by mass.

2012-409.02 MATERIALS AND EQUIPMENT. Conform to the guidelines in Subsection 2012-409.03.03 for the required grade of asphalt binder which is based on the percentage of effective binder content of the mixture.

2012-409.03 CONSTRUCTION. Keep reclaimed material of different gradation, asphalt binder content, asphalt binder properties, and aggregate properties separate at all times, including when stockpiling and feeding. The Department may approve other methods and procedures provided that all characteristics of the reclaimed material remain uniform.

2012-409.03.01 Polish-Resistant Aggregate. When electing to utilize polish-resistant aggregate in reclaimed material to satisfy a portion of the polish-resistant aggregate requirements for the mix, provide documentation to the Engineer's satisfaction that the reclaimed material consists of the specified amount of polish-resistant aggregate. Provide samples of the reclaimed material to the Engineer for verification testing.

2012-409.03.02 Asphalt Binder Content Adjustment for RAS. Recognizing that not all asphalt binder in RAS is activated during the mixing operation to fully blend with the virgin materials, the Department will reduce the asphalt binder content determined by Kentucky Method 64-405 for RAS by 25 percent.

2012-409.03.03 Preparation of Mixture.

A) Mix Requirements. Conform to the Contract requirements for each mixture produced using reclaimed material consisting of RAP, RAS, or a combination of RAP and RAS. Conform to the following table to select the appropriate grade of virgin asphalt binder to blend with the reclaimed material. Calculate the percentage of effective binder content as follows:

Percentage of effective binder content = [(A*B) + (0.75*C*D)]/E, where

- A = Asphalt binder content of the RAP (%);
- B = Percentage of RAP in the mix (%);
- C = Asphalt binder content of the RAS (%);
- D = Percentage of RAS in the mix (%); and
- E = Effective binder content of the mix (%).

	WITH NOMINAL-MAXIMU OF 0.5 in., 0.38 in., and No. 4	M AGGREGATE SIZE	
ASPHALT BINDER	VIRGIN ASPHALT BINDER		
SPECIFIED IN	RAP		
MIXTURE	< 20 % Effective Binder	21-30 % Effective	
BID ITEM	- Content	Binder Content	
PG 64-22	PG 64-22	PG 58-28	
PG 76-22	PG 76-22		
	RAS		
	≤ 13 % Effective Binder	14-20 % Effective	
	Content	Binder Content	
PG 64-22	PG 64-22	PG 58-28	
PG 76-22			
	RAP and RAS		
	≤ 15 % Effective Binder	16-25 % Effective	
	Content	Binder Content	
PG 64-22	PG 64-22	PG 58-28	
PG 76-22			

ASPHALT MIXTURES	WITH NOMINAL-MAXIMU	M AGGREGATE SIZE
O	F 1.50 in., 1.00 in., and 0.75 in.	
ASPHALT BINDER	VIRGIN ASPHALT BINDER	
SPECIFIED IN	RAP	
MIXTURE	≤ 25 % Effective Binder	26-35 % Effective
BID ITEM	Content	Binder Content
PG 64-22	PG 64-22	PG 58-28
PG 76-22	PG 76-22	
	RAS	
	≤ 16 % Effective Binder	17-24 % Effective
	Content	Binder Content
PG 64-22	PG 64-22	PG 58-28
PG 76-22		
	RAP and RAS	
	<u> < 18 % Effective Binder </u>	19-30 % Effective
	Content	Binder Content
PG 64-22	PG 64-22	PG 58-28
PG 76-22		

B) Mixing. Obtain the Engineer's approval for the method of incorporating the reclaimed material into the mixture. Thoroughly mix the new and reclaimed materials into a uniform mass. Ensure that the final mixture conforms to all requirements of the Contract. Ensure that the moisture content of the final mixture is not detrimental to the handling, hauling, placing, or compacting of the mixture.

2012-409.04 MEASUREMENT. The Department will not measure reclaimed material separately but will include it in the measured quantities of asphalt mixture produced.

2012-409.05 PAYMENT. The Department will make payment for the completed and accepted quantities under the appropriate pay item for the asphalt mixture being produced.

The Department will not make separate payment for incorporating reclaimed material. The Department will not increase or decrease the Contract unit prices for any asphalt mixture on the project as a result of using, or not using, reclaimed material in the asphalt mixtures.

SPECIAL NOTES FOR COMPLETION DATE & LIQUIDATED DAMAGES

Time is critical for this project. The overall completion date for the contract is September 15, 2012; however, remove the existing culvert, install and backfill the new culvert, restore the pavement and reopen KY 1822 to through traffic no later than August 12, 2012. In addition to the Liquidated Damages specified in Section 108.09, Liquidated Damages in the amount of \$2,000.00 per calendar day will be assessed for each calendar day or part of a day that KY 1822 remains closed to through traffic after August 12, 2012.

In addition to the requirements of Section 108.09, Liquidated Damages in the amount of \$1,000 per day will be assessed for each calendar day or part of a calendar day a road closure for culvert replacement remains in place beyond the 9 ½ calendar days allowed by the Traffic Control Plan or during other days prohibited by the Engineer.

Contrary to section 108.09, Liquidated damages will be assessed for the months of December through March. Contrary to Section 108.09, Liquidated Damages will be assessed regardless of whether seasonal limitations prohibit the Contractor from performing work on the controlling operation. All liquidated damages will be applied cumulatively. All other applicable portions of Section 108 apply.

SPECIAL PROVISION FOR WASTE AND BORROW SITES

Obtain U.S. Army Corps of Engineer's approval before utilizing a waste or borrow site that involves "Waters of the United States". The Corps of Engineers defines "Waters of the United States" as perennial or intermittent streams, ponds or wetlands. The Corps of Engineers also considers ephemeral streams, typically dry except during rainfall but having a defined drainage channel, to be jurisdictional waters. Direct questions concerning any potential impacts to "Waters of the United States" to the attention of the appropriate District Office for the Corps of Engineers for a determination prior to disturbance. Be responsible for any fees associated with obtaining approval for waste and borrow sites from the U.S. Army Corps of Engineer or other appropriate regulatory agencies.

1-296 Waste & Borrow Sites 01/02/2012

SPECIAL NOTE FOR PAVEMENT WEDGE AND SHOULDER SEPARATE OPERATION

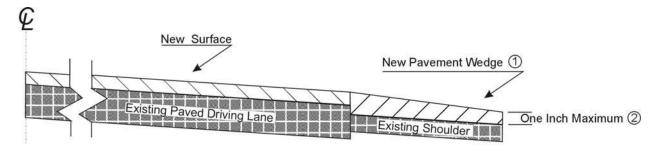
1.0 MATERIALS. Provide an Asphalt Mixture for Pavement Wedge conforming to Section 407 of the Standard Specifications or an Asphalt Surface Mixture conforming to Section 403 of the Standard Specifications, as applicable to the project, for the pavement wedge.

2.0 CONSTRUCTION. Place the Asphalt Mixture for Pavement Wedge or Asphalt Surface Mixture as a separate operation from the driving lane. Prime the existing shoulder with tack material as the Engineer directs before placing the wedge. Construct according to Sections 407.03 and 403.03 as applicable.

When the Engineer deems it appropriate to pave both the driving lane and the adjoining wedge monolithically, equip the paver with a modified screed that extends the full width of the wedge being placed and is tapered to produce a wedge. Obtain the Engineer's approval of the modified screed before placing shoulder wedge monolithically with the driving lane.

The wedge may vary in thickness at the edge of the driving lanes. Where existing site conditions permit, limit the outside edge thickness of the new paving limits to one inch above the existing shoulder wedge elevation. If an Asphalt Surface Mixture is furnished for the pavement wedge, texture according to Section 403.03.08.

The following sketch is primarily for the computation of quantities; however, the wedge will result in a similar cross-section where sufficient width exists. Do not construct a shoulder for placing the wedge unless specified elsewhere in the Contract.



① Slope varies, but is down from the driving lanes except on outside of some curves where superelevation controls.

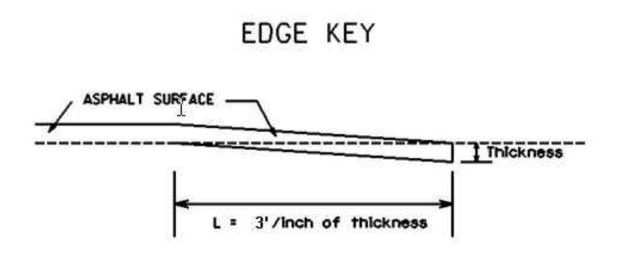
2 Where existing site conditions permit.

3.0 MEASUREMENT. The Department will measure Asphalt Mixture for Pavement Wedge or Asphalt Surface Mixture placed as the pavement wedge according to Sections 403 and 407 as applicable.

4.0 PAYMENT. The Department will make payment for the completed and accepted quantities of Asphalt Surface Mixtures placed as pavement wedge according to Section 403. The Department will make payment for the completed and accepted quantities of Asphalt Mixture for Pavement Wedge according to Section 407.

SPECIAL NOTE FOR EDGE KEY

Construct Edge Keys at the beginning of project, end of project, at railroad crossings, and at intersections with ramps, as applicable. Unless specified in the Contract or directed by the Engineer, do not construct edge keys at intersecting streets, roads, alleys, or entrances. Cut out the existing asphalt surface to the required depth and width shown on the drawing and heel the new surface into the existing surface. The Department will measure the Edge Key at the joint as the width of the pavement perpendicular to the centerline in linear feet. The Department will pay for this work at the Contract unit price per linear foot, which shall be full compensation for all labor, materials, equipment, and incidentals for removal and disposal of the existing asphalt surface required to construct the edge key.



Thickness = $\underline{1}$ Inches

 $L = \underline{3} LF$

L = Length of Edge Key

SPECIAL NOTES FOR GUARDRAIL

I. DESCRIPTION

Except as specified herein, perform all work in accordance with the Department's Standard and Supplemental Specifications and Standard and Sepia Drawings, current editions. Article references are to the Standard Specifications.

Furnish all equipment, labor, materials, and incidentals for the following work items:

(1) Site preparation; (2) Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections, as applicable; (3) Delineators for guardrail; (4) Maintain and control traffic; and (5) all other work specified as part of this contract.

II. MATERIALS

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

A Maintain and Control Traffic. See Traffic Control Plan.

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

C. Delineators for Guardrail. Furnish white and/or yellow Delineators for Guardrail according to the Delineators for Guardrail Sepia Drawing.

D. Erosion Control. See Special Notes for Erosion Control.

III. CONSTRUCTION METHODS

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

B. Site Preparation. Be responsible for all site preparation, including but not limited to, clearing and grubbing, excavation, embankment, and removal of all obstructions or any other items; regrading, reshaping, adding and compacting of suitable materials on the existing shoulders to provide proper template or foundation for the guardrail; temporary pollution and erosion control; disposal, of excess and waste materials and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the engineer.

Guardrail Page 2 of 3

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

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

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

D. Delineators for Guardrail. Construct Delineators for Guardrail according to the Delineators for Guardrail Sepia Drawing.

E. Property Damage. Be responsible for all damage to public and/or private property resulting from the work. Restore damaged roadway features and private property at no additional cost to the Department.

F. Coordination with Utility Companies. Locate all underground, above ground and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of guardrail operations at no additional cost to the Department.

G. Right of Way Limits. The Department has not established exact limits of the Right-of-Way. Limit work activities to obvious Right-of-Way, permanent or temporary easements, and work areas secured by the Department through consent and release of the adjacent property owners. Be responsible for all encroachments onto private lands.

H. Disposal of Waste. Dispose of all removed concrete, debris, and other waste and debris off the Right-of-Way at sites obtained by the Contractor at no additional cost to thee Department. See Special; Note for Waste and Borrow.

Guardrail Page 3 of 3

I. Final Dressing, Clean Up, and Seeding and Protection. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas according to the Special Notes for Erosion Control.

J. Erosion Control. See Special Notes for Erosion Control.

IV. METHOD OF MEASUREMENT

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

B. Site preparation. Other than the bid items listed, the Department will not measure Site Preparation for separate payment but shall be incidental to Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections as applicable.

C. Guardrail. See Section 719.04.

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

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

V. BASIS OF PAYMENT

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

B. Guardrail. See Section 719.05.

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

D. Erosion Control. See Special Notes for Erosion Control.

1-3415 New Guardrail 1/02/2012

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

Consider the dimensions shown on the typical sections for pavement and shoulder widths and thickness' to be nominal or typical dimensions. The Engineer may direct or approve varying the actual dimensions to be constructed to fit existing conditions. Do not widen existing pavement or shoulders unless specified elsewhere in this proposal or directed by the engineer.

1-3725 Typical Section Dimensions 01/02/2012

TRAFFIC CONTROL PLAN

TRAFFIC CONTROL GENERAL

Except as specified herein, maintain and control traffic in accordance with the current Standard Specifications and current editions of applicable Supplemental Specifications, Special Notes and Special Provisions, and Standard and Sepia Drawings. Protect pedestrian and bicycle traffic as directed by the Engineer. Except for the roadway and traffic control bid items listed, the Department will measure and pay for all items of work necessary to maintain and control traffic at the lump sum contract 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

Close KY 1822 to through traffic for removal of the existing culvert and construction of the new culvert subject to the following conditions:

1. The Department will allow a single road closure, not to exceed 9¹/₂ calendar days, beginning 6:00 p.m. Friday through 6:00 a.m. Monday one week and two and a half days later. Select a time period that shall end by August 12, 2012 and submit to the Engineer for approval a minimum of fourteen (14) calendar days prior to proposed closure. The Engineer will not approve a road closure on any day that Boyle County schools are in regular session. Culvert replacement MUST be complete before the opening of Boyle County public school system on August 14, 2012

2. The Department will provide public notification. Notify the Engineer immediately and obtain approval of any deviations from the previously approved closure schedule.

3. The Contractor shall be responsible for road closure barricades and signs, and work zone and pavement condition signs as shown on the Standard Drawings.

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

5. The Department will measure and pay at the Contract unit bid prices for DGA and asphalt materials required to construct and maintain any temporary entrances which may be necessary to provide temporary access; however, no direct payment will be allowed for temporary pipe, excavation, and/or embankment needed. The Engineer will determine the type of surfacing material, asphalt or aggregate, to be used at each entrance. When the culvert, backfill, and asphalt base courses have been constructed, reopen KY 1822 to through traffic.

The Engineer will permit shoulder closures during non-working hours; however do not park equipment or store materials on a closed shoulder during non-working hours. After the road is reopened, during periods when lane closures or shoulder closures are not in place, do not allow obstructions of any kind. Remove all construction equipment and vehicles from the work zone to an area behind existing guardrail or beyond the clear zone, remove or cover all inappropriate signs, and place all channelization devices behind the ditch line or at other locations approved by the Engineer. Do not leave equipment, vehicles, or other items on shoulders.

LANE CLOSURES

When the road is open to through traffic, do not leave lane closures in place during non-working hours.

SIGNS

Contrary to section 112.04.02, only long term signs (signs intended to be continuously in place for more than 3 days) will be measured for payment; short term signs (signs intended to be left in place for 3 days or less) will not be measured for payment but will be incidental to Maintain and Control Traffic.

BARRICADES

Barricades used in lieu of barrels and cones for channelization or delineation will be incidental to Maintain and Control Traffic according to Section 112.04.01. Barricades used to protect pavement removal areas and to close the road will be bid as each according to Section 112.04.05.

TRAFFIC COORDINATOR

Furnish a Project Traffic Coordinator as per Section 112.03.12 for an unclassified project. The Traffic Coordinator shall provide for inspection of the project maintenance of traffic a minimum of once every two hours during the Contractor's operations and at any time a lane or road closure is in place. Provide the project personnel on the project with access to a radio or telephone to be used in case of emergencies or accidents.

CHANGEABLE MESSAGE SIGNS

Provide changeable message signs in advance of and within the project at locations to be determined by the Engineer. If work is in progress concurrently in both directions or if more than one lane closure is in place in the same direction of travel, provide additional changeable message signs as directed by the Engineer. Place changeable message signs at each end of KY 1822 to warn motorists of the road closure during the times that the road is closed. When the road is reopened provide changeable message signs so that traffic has warning of slowed or stopped traffic at least one mile but not more than two miles before reaching the end of the actual

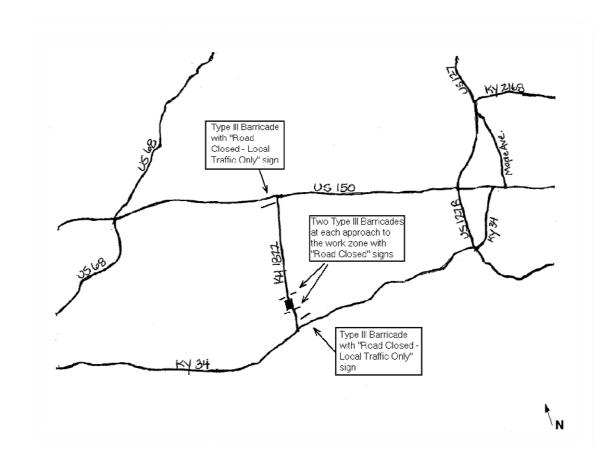
queue. The locations designated may vary as the work progresses. The messages required to be provided shall be designated by the Engineer. In the event of damage or mechanical/electrical failure, the Contractor shall repair or replace the Changeable Message Sign within 24 hours. The Department will measure for payment the maximum number of changeable message signs in concurrent use at the same time on a single day on all sections of the contract. Individual changeable message signs will be measured only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. Replacements for damaged changeable message signs directed by the Engineer to be replaced due to poor condition or readability will not be measured for payment.

PAVEMENT EDGE DROP-OFFS

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

- Less than 2" No protection required.
- 2" to 4" Place plastic drums, vertical panels, or barricades every 50 feet. During daylight working hours only, the Engineer will allow the Contractor to use cones in lieu of plastic drums, panels, and barricades. Wedge the drop-off with asphalt mixture for leveling and wedging with a 1:1 or flatter slope in daylight hours, or 3:1 or flatter slope during nighttime hours, when work is not active in the drop-off area.

KY 1822 Sign Diagram - Culvert Replacement



Additional signs shall be placed on each side of the work zone: "Road Closed 1500 FT", "Road Closed 1000 FT", and "Road Closed 500 FT".

USE AND PLACEMENT OF CHANGEABLE MESSAGE SIGNS

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

Application

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

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

CMS should not be used for:

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

<u>Messages</u>

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

- Visible for at least ¹/₂ mile under ideal daytime and nighttime conditions
- Legible from all lanes a minimum of 650 feet
- Entire message readable twice while traveling at the posted speed

- Nor more than two message panels should be used (three panels may be used on roadways where vehicles are traveling less than 45 mph). A panel is the message that fits on the face of the sign without flipping or scrolling.
- Each panel should convey a single thought; short and concise
- Do not use two unrelated panels on a sign
- Do not use the sign for two unrelated messages
- Should not scroll text horizontally or vertically
- Should not contain both the words left and right
- Use standardized abbreviations and messages
- Should be accurate and timely
- Avoid filler/unnecessary words and periods (hazardous, a, an, the)
- Avoid use of speed limits
- Use words (not numbers) for dates

Placement

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

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

Standard Abbreviations

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

<u>Word</u>	Abbrev.	<u>Example</u>
Access	ACCS	ACCIDENT AHEAD/USE ACCS RD NEXT RIGHT
Alternate	ALT	ACCIDENT AHEAD/USE ALT RTE NEXT RIGHT
Avenue	AVE	FIFTH AVE CLOSED/DETOUR NEXT LEFT
Blocked	BLKD	FIFTH AVE BLKD/MERGE LEFT
Boulevard	BLVD	MAIN BLVD CLOSED/USE ALT RTE
Bridge	BRDG	SMITH BRDG CLOSED/USE ALT RTE
Cardinal Directions	N, S, E, W	N I75 CLOSED/ DETOUR EXIT 30
Center	CNTR	CNTR LANE CLOSED/MERGE LEFT

Commercial	COMM	OVRSZ COMM VEH/USE I275
Condition	COND	ICY COND POSSIBLE
Congested	CONG	HVY CONG NEXT 3 MI
Construction	CONST	CONST WORK AHEAD/EXPECT DELAYS
Downtown	DWNTN	DWNTN TRAF USE EX 40
Eastbound	E-BND	E-BND I64 CLOSED/DETOUR EXIT 20
	E-BND EMER	EMER VEH AHEAD/PREPARE TO STOP
Emergency Entrance, Enter	EMER EX, EXT	DWNTN TRAF USE EX 40
	EXPWY	WTRSN EXPWY CLOSED/DETOUR EXIT 10
Expressway	FRWY, FWY	GN SYNDR FWY CLOSED/DETOUR EXIT 10
Freeway Hazardous Materials	HAZMAT	HAZMAT IN ROADWAY/ALL TRAF EXIT 25
Highway	HWY	ACCIDENT ON AA HWY/EXPECT DELAYS
Hour	HR	ACCIDENT ON AA HWY/2 HR DELAY
Information	INFO	TRAF INFO TUNE TO 1240 AM
Interstate	I	E-BND I64 CLOSED/DETOUR EXIT 20
Lane	LN	LN CLOSED/MERGE LEFT
Left	LFT	LANE CLOSED/MERGE LFT
Local	LOC	LOC TRAF USE ALT RTE
Maintenance	MAINT	MAINT WRK ON BRDG/SLOW
Major	MAJ	MAJ DELWAYS 175/USE ALT RTE
Mile	MI	ACCIDENT 3 MI AHEAD/ USE ALT RTE
Minor	MNR	ACCIDENT 3 MI MNR DELAY
Minutes	MIN	ACCIDENT 3 MI/30 MIN DELAY
Northbound	N-BND	N-BND I75 CLOSED/ DETOUR EXIT 50
Oversized	OVRSZ	OVRSZ COMM VEH/USE I275 NEXT RIGHT
Parking	PKING	EVENT PKING NEXT RGT
Parkway	PKWY	CUM PKWAY TRAF/DETOUR EXIT 60
Prepare	PREP	ACCIDENT 3 MIL/PREP TO STOP
Right	RGT	EVENT PKING NEXT RGT
Road	RD	HAZMAT IN RD/ALL TRAF EXIT 25
Roadwork	RDWK	RDWK NEXT 4 MI/POSSIBLE DELAYS
Route	RTE	MAJ DELAYS 175/USE ALT RTE
Shoulder	SHLDR	SHLDR CLOSED NEXT 5 MI
Slippery	SLIP	SLIP COND POSSIBLE/ SLOW SPD
Southbound	S-BND	S-BND I75 CLOSED/DETOUR EXIT 50
Speed	SPD	SLIP COND POSSIBLE/ SLOW SPD
Street	ST	MAIN ST CLOSED/USE ALT RTE
Traffic	TRAF	CUM PKWAY TRAF/DETOUR EXIT 60
Vehicle	VEH	OVRSZ COMM VEH/USE I275 NEXT RIGHT
Westbound	W-BND	W-BND I64 CLOSED/DETOUR EXIT 50
Work	WRK	CONST WRK 2MI/ POSSIBLE DELAYS

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

Abbrev.	Intended Word	Word Erroneously Given
ACC	Accident	Access (Road)
CLRS	Clears	Colors
DLY	Delay	Daily
FDR	Feeder	Federal
L	Left	Lane (merge)

LOC	Local	Location
LT	Light (traffic)	Left
PARK	Parking	Park
POLL	Pollution (index)	Poll
RED	Reduce	Red
STAD	Stadium	Standard
TEMP	Temporary	Temperature
	Temporary Warning	Temperature Wrong

TYPICAL MESSAGES

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

Reason/Problem

ACCIDENT ACCIDENT/XX MILES XX ROAD CLOSED XX EXIT CLOSED **BRIDGE CLOSED** BRIDGE/(SLIPPERY, ICE, ETC.) CENTER/LANE/CLOSED DELAY(S), MAJOR/DELAYS **DEBRIS AHEAD DENSE FOG** DISABLED/VEHICLE EMER/VEHICLES/ONLY **EVENT PARKING** EXIT XX CLOSED FLAGGER XX MILES FOG XX MILES FREEWAY CLOSED FRESH OIL HAZMAT SPILL ICE INCIDENT AHEAD LANES (NARROW, SHIFT, MERGE, ETC.) LEFT LANE CLOSED LEFT LANE NARROWS LEFT 2 LANES CLOSED LEFT SHOULDER CLOSED LOOSE GRAVEL MEDIAN WORK XX MILES MOVING WORK ZONE. WORKERS IN ROADWAY NEXT EXIT CLOSED NO OVERSIZED LOADS NO PASSING

Action ALL TRAFFIC EXIT RT AVOID DELAY USE XX CONSIDER ALT ROUTE DETOUR DETOUR XX MILES DO NOT PASS EXPECT DELAYS FOLLOW ALT ROUTE **KEEP LEFT KEEP RIGHT** MERGE XX MILES MERGE LEFT MERGE RIGHT **ONE-WAY TRAFFIC** PASS TO LEFT PASS TO RIGHT PREPARE TO STOP **REDUCE SPEED SLOW** SLOW DOWN STAY IN LANE STOP AHEAD STOP XX MILES TUNE RADIO 1610 AM USE NN ROAD **USE CENTER LANE USE DETOUR ROUTE** USE LEFT TURN LANE USE NEXT EXIT **USE RIGHT LANE** WATCH FOR FLAGGER NO SHOULDER ONE LANE BRIDGE PEOPLE CROSSING RAMP CLOSED RAMP (SLIPPERY, ICE, ETC.) **RIGHT LANE CLOSED RIGHT LANE NARROWS RIGHT SHOULDER CLOSED ROAD CLOSED** ROAD CLOSED XX MILES ROAD (SLIPPERY, ICE, ETC.) **ROAD WORK** ROAD WORK (OR CONSTRUCTION) (TONIGHT, TODAY, TOMORROW, DATE) ROAD WORK XX MILES SHOULDER (SLIPPERY, ICE, SOFT, BLOCKED, ETC.) NEW SIGNAL XX MILES SLOW 1 (OR 2) - WAY TRAFFIC SOFT SHOULDER STALLED VEHICLES AHEAD TRAFFIC BACKUP TRAFFIC SLOWS TRUCK CROSSING TRUCKS ENTERING TOW TRUCK AHEAD **UNEVEN LANES** WATER ON ROAD WET PAINT WORK ZONE XX MILES WORKERS AHEAD

1/16/10

use and placement of changeable message signs.docx

SPECIAL NOTE FOR EROSION CONTROL

I. DESCRIPTION

Perform all erosion and water pollution control work in accordance with the Department's 2008 Standard Specifications, these notes, and interim Supplemental Specifications, Special Provisions and Special Notes, and Standard and Sepia Drawings, current editions, and as directed by the Engineer. Section references are to the Standard Specifications. This work shall consist of:

(1) Developing and preparing a Best Management Practices Plan (BMP) tailored to suit the specific construction phasing for each site within the project; (2) Preparing the project site for construction, including locating, furnishing, installing, and maintaining temporary and/or permanent erosion and water pollution control measures as required by the BMP prior to beginning any earth disturbing activity on the project site; (3) Clearing and grubbing and removal of all obstructions as required for construction; (4) Removing all erosion control devices when no longer needed; (5) Restoring all disturbed areas as nearly as possible to their original condition; (6) Preparing seedbeds and permanently seeding all disturbed areas; (7) Providing a Kentucky Erosion Prevention and Sediment Control Program (KEPSC) qualified inspector; and (8) Performing any other work to prevent erosion and/or water pollution as specified by this contract, required by the BMP, or as directed by the Engineer.

II. MATERIALS

Furnish materials in accordance with these notes, the Standard Specifications and interim Supplemental Specifications, and applicable Special Provisions and Special Notes, and Standard and Sepia Drawings, current editions. Provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual. Unless directed otherwise by the Engineer, make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing.

III. CONSTRUCTION

Be advised, these Erosion Control Plan Notes do not constitute a BMP plan for the project. Jointly with the Engineer, prepare a site specific BMP plan for each drainage area within the project in accordance with Section 213 and the supplemental specifications. Provide a unique BMP at each project site using good engineering practices taking into account existing site conditions, the type of work to be performed, and the construction phasing, methods and techniques to be utilized to complete the work. Be responsible for all erosion prevention, sediment control, and water pollution prevention measures required by the BMP for each site. Represent and warrant compliance with the Clean Water Act (33 USC Section 1251 et seq.), the 404 Permit, the 401 Water Quality

Erosion Control Page 2 of 4

Certification, and applicable state and local government agency laws, regulations, rules, specifications, and permits. Contrary to Section 105.05, in case of discrepancy between theses notes, the Standard Specifications, interim Supplemental Specifications, Special and Special Notes, Standard and Sepia Drawings, and such state and local government agency requirements, adhere to the most restrictive requirement.

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

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

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

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

Erosion Control Page 3 of 4

IV. MEASUREMENT

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

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

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

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

V. Basis of Payment

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

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

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

Erosion Control Page 4 of 4

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

1-____ Erosion Control Plan Maintenance Projects 09/01/2011

SPECIAL NOTES FOR UTILITY CLEARANCE IMPACT ON CONSTRUCTION

BOYLE COUNTY KY 1822 MP 3.452-3.493 Culvert Replacement

The Danville Section Engineer contacted BUD, Kentucky Utilities, Parksville Water Company, AT&T, Atmos, and Time Warner Cable when planning this project. Kentucky Utilities, Parksville Water and AT&T located facilities on the project. Atmos and Time Warner Cable were clear of the project. The Contractor is still advised to contact the BUD one-call system on his own before starting work and to be aware that owners of underground facilities are not required to be members of the BUD one-call system. The above-mentioned utilities are not all members of BUD. It may be necessary for the Contractor to contact the County Court Clerk to determine what utility companies have facilities in the project area. BUD (Before You Dig) Telephone Number: 811 or 1-800-752-6007

The Contractor may not enter these areas to perform any work without permission from the Cabinet's Danville Section Engineer. Permission to work in these areas shall not be granted unless the Contractor has submitted a detailed work plan outlining the following:

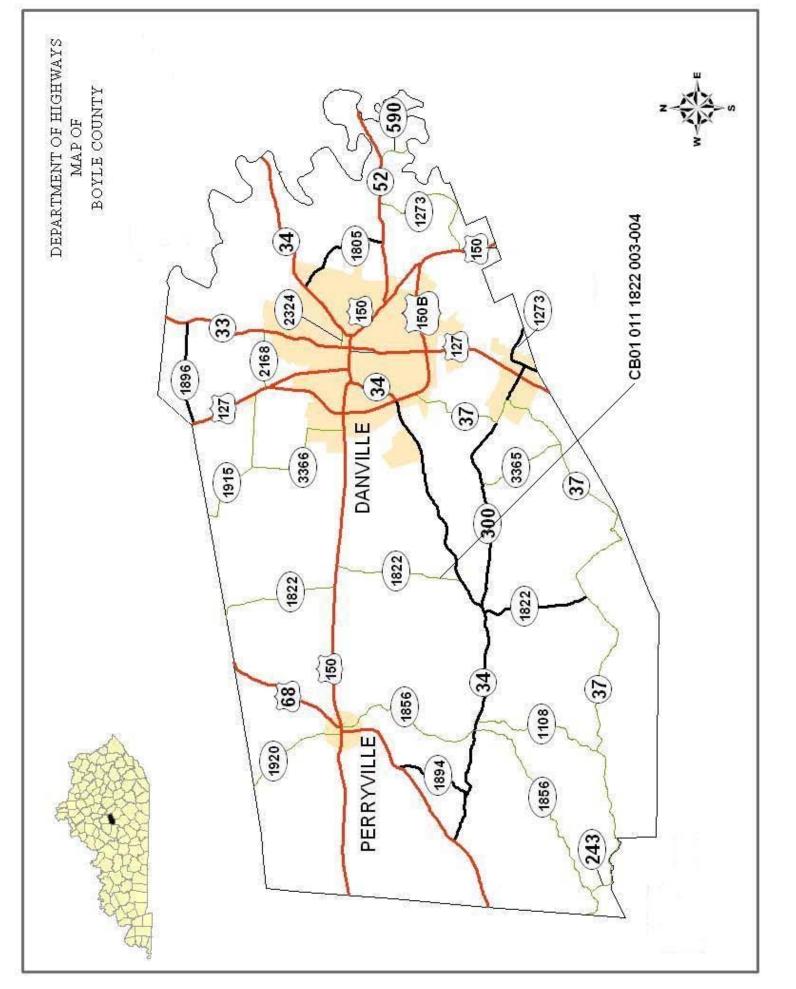
- 1. the type of work to be performed,
- 2. a schedule of the work,
- 3. a plan that shows how the Contractor will coordinate with utility companies and their contractors,
- 4. the methods the Contractor will adopt to protect existing utilities.

COORDINATION WITH UTILITY FACILITY OWNERS

The Contractor will be responsible for contacting all utility facility owners on the subject project to have existing facilities located in the field. The Contractor will coordinate his activities with the utility facility owners to minimize and, where possible, avoid conflicts with utility facilities. Where conflicts with utility facilities are unavoidable the Contractor will coordinate any necessary relocation work with the facility owner. There will be no damages awarded for delays caused by necessary utility relocations and/or adjustments.

PROTECTION OF UTILITY FACILITIES

It will be the Contractor's responsibility to locate the utility facilities before excavation by calling the utility facility owner and/or the BUD one-call system. The Contractor shall determine the exact location and elevation of underground utility facilities by hand digging to expose utilities before beginning excavation in the area of underground utility facilities. The cost for repair and any other associated costs for any damage to utility facilities caused by the Contractor's operation will be borne by the Contractor. In instances where a utility impact is identified by these field measures, the Cabinet will determine a course of action. The Cabinet will assess the complexity of the conflict, and determine if the utility can be avoided by minor redesign, or if the work which impacts the utility must be removed. The Contractor accepts that minor redesign or scope revisions may occur if impacts are identified.



CXIST, BASE STING PAVENENT

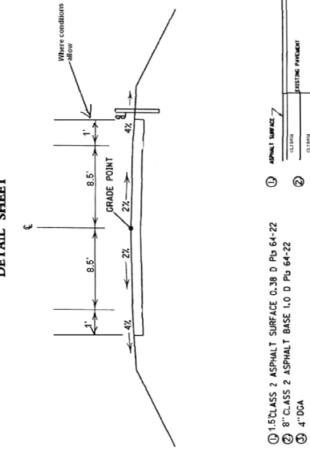
DOA BASE

CL2 BASE

ତ ତ

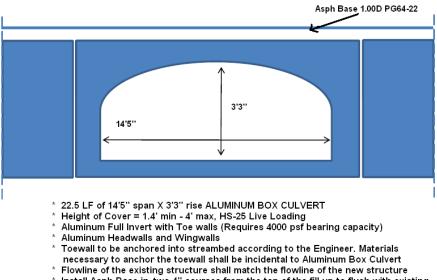
ASPIALT SUBFACE

edge key detail



TYPICAL SECTION DETAIL SHEET 8

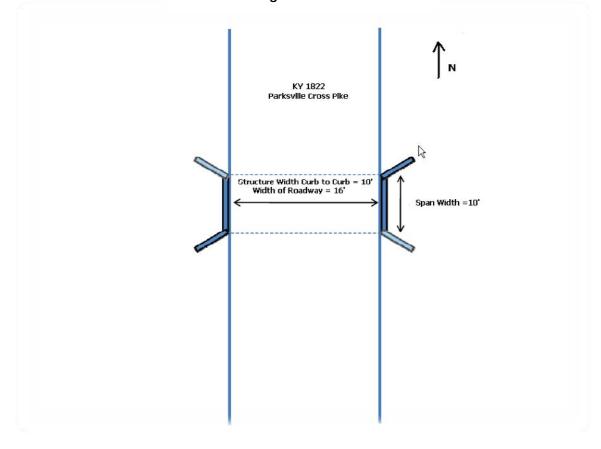
CB01 011 1822 003-004 Aluminum Box Culvert MP 3.479 Proposed Structure Drawing #1



* Install Asph Base in two 4" courses from the top of the fill up to flush with existing surface

* Contrary to Special Note 9V, Site Preparation will be all items necessary to start installing the new structure once the old structure is completely removed

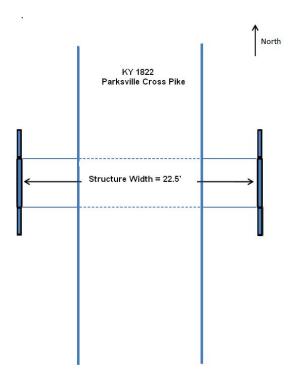
CB01 011 1822 003-004 Culvert Replacement MP 3.479 Existing Structure



Notes:

- Structure is not on a skew
- Wingwalls, abutments, and top slab are reinforced concrete
- Saw-cutting the road to remove the structure will be incidental to Remove Structure
- Contractor shall remove the entire structure including wingwalls

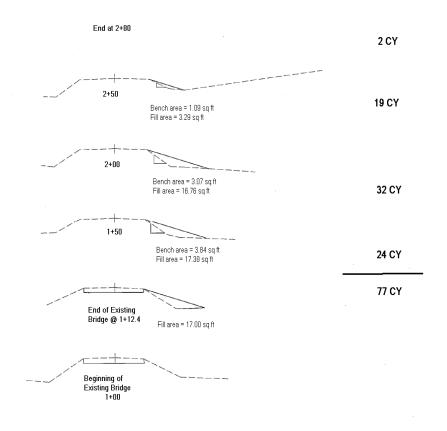
CB01 011 1822 003-004 Aluminum Box Culvert MP 3.479 Proposed Structure



Notes:

- Structure is not skewed
- Center Structure on Roadway
- HS-25 Live Loading will be the Design Load

EMBANKMENT IN PLACE



The pay item Embankment in Place is for the slopes in the southwest quadrant of the culvert.

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.*

SUBSECTION: REVISION:	101.02 Abbreviations. Insert the following abbreviation and text into the section:							
	KEPSC Kentucky Erosion Prevention and Sediment Control							
SUBSECTION: REVISION:	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 an individual project.							
SUBSECTION: REVISION:	102.03 Contents of the Bid Proposal Form. Replace the first sentence of the first paragraph with the following: The Bid Proposal form will be available on the Department internet website (http://transportation.ky.gov/contract/).							
	Delete the second paragraph.							
	Delete the last paragraph.							
SUBSECTION: REVISION:	102.04 Issuance of Bid Proposal Form. Replace Heading with the following:							
	102.04 Bidder Registration.							
	Replace the first sentence of the first paragraph with the following:							
	The Department reserves the right to disqualify or refuse to place a bidder on the eligible bidder's list for a project for any of the following reasons:							
	Replace the last sentence of the subsection with the following:							
	The Department will resume placing the bidder on the eligible bidder's list for projects after the bidder improves his operations to the satisfaction of the State Highway Engineer.							
SUBSECTION: REVISION:	102.06 Examination of Plans, Specifications, Special Provisions, Special Notes, and Site of Work. Replace the first paragraph with the following:							
	Examine the site of the proposed work, the Bid Proposal, Plans, specifications, contract forms, and bulletins and addendums posted to the Department's website and the Bid Express Bidding Service Website before submitting the Bid Proposal. The Department considers the submission of a Bid Proposal prima facie evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the Contract.							
SUBSECTION: REVISION:	102.07.01 General. Replace the first sentence with the following:							
	Submit the Bid Proposal on forms furnished on the Bid Express Bidding Service website (www.bidx.com).							
	Replace the first sentence of the third paragraph with the following:							
	Bid proposals submitted shall use an eligible Digital ID issued by Bid Express.							
L								

dub db db to to to								
SUBSECTION: REVISION:	102.07.02 Computer Bidding. Replace the first paragraph with the following:							
	Subsequent to registering for a specific project, use the Department's Expedite Bidding Program on the internet website of the Department of Highways, Division of Construction Procurement (<u>http://transportation.ky.gov/contract/</u>). Download the bid file from the Bid Express Bidding Service Website to prepare a Bid Proposal for submission to the Department. Submit Bid Proposal electronically through Bid Express Bidding Service.							
	Delete the second and third paragraph.							
SUBSECTION: REVISION:	102.08 Irregular Bid Proposals. Delete the following from the first paragraph: 4) fails to submit a disk created from the Highway Bid Program.							
	Replace the second paragraph with the following: The Department will consider Bid Proposals irregular and may reject them for the following reasons:							
	 when there are unauthorized additions, conditional or alternate bids, or irregularities of a kind which may tend to make the Bid Proposal incomplete, indefinite, or ambiguous as to meaning; or when the bidder adds any provisions reserving the right to accept or reject an award, or to er into a Contract pursuant to an award; or any failure to comply with the provisions of Subsection 102.07; or Bid Proposals in which the Department determines that the prices are unbalanced; or when the sum of the total amount of the Bid Proposal under consideration exceeds the bidde Current Capacity Rating. 							
SUBSECTION: REVISION:	102.09 Bid Proposal Guaranty. Insert the following after the first sentence:							
	Bid Proposals must have a bid proposal guaranty in the amount indicated in the bid proposal form accompany the submittal. A guaranty in the form of a paper bid bond, cashier's check, or certified check in an amount no less than the amount indicated on the submitted electronic bid is required when the electronic bid bond was not utilized with the Bid Express Bidding Service. Paper bid bonds must be delivered to the Division of Construction Procurement prior to the time of the letting.							
SUBSECTION: REVISION:	102.10 Delivery of Bid Proposals. Replace paragraph with the following:							
	Submit all Bid Proposals prior to the time specified in the Notice to Contractors. All bids shall be submitted electronically using Bid Express Bidding Services. Electronically submitted bids must be done in accordance with the requirements of the Bid Express Bidding Service.							
SUBSECTION: REVISION:	102.11 Withdrawal or Revision of Bid Proposals. Replace the paragraph with the following:							
	Bid Proposals can be withdrawn in accordance the requirements of the Bid Express Bidding Service prior to the time of the Letting.							

CLIDGECTION								
SUBSECTION:	102.13 Public Opening of Bid Proposals.							
REVISION:	Replace Heading with the following: 102.13 Public Announcement of Bid Proposals.							
	102.13 Public Announcement of Bid Proposals.							
	Doplace the performed with the following:							
	Replace the paragraph with the following:							
	The Department will publicly announce all Bid Proposals at the time indicated in the Notice to							
	Contractors.							
SUBSECTION:	103.02 Award of Contract.							
REVISION:	Replace the first sentence of the third paragraph with the following:							
KEVISION.	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.							
SUBSECTION:	105.02 Plans and Working Drawings.							
REVISION:	Insert the following after the fourth paragraph:							
	Submit electrical shop drawings, design data, and descriptive literature for materials in electronic							
	format to the Division of Traffic Operations for approval. Drawings and literature shall be							
	submitted for lighting and signal components. Notify the Engineer when submitting information to							
	the Division of Traffic Operations. Do not begin work until shop drawings are approved.							
	Submit show drawings for traffic counting covirge and materials in electronic format to the							
	Submit shop drawings for traffic counting equipment and materials in electronic format to the							
	Engineer or the Division of Planning. Notify the Engineer when submitting information directly to							
	the Division of Planning. Do not begin work until shop drawings are reviewed and approved.							
SUBSECTION:	105.03 Record Plans.							
REVISION:	Replace the section with the following:							
	Replace the section with the following.							
	Record Plans are those reproductions of the original Plans on which the accepted Bid Proposal was							
	based and, and signed by a duly authorized representative of the Department. The Department will							
	make these plans available for inspection in the Central Office at least 24 hours prior to the time of							
	opening bids and up to the time of letting of a project or projects. The quantities appearing on the							
	Record Plans are the same as those on which Bid Proposals are received. The Department will use							
	these Record Plans as the controlling plans in the prosecution of the Contract. The Department will							
	not make any changes on Record Plans subsequent to their issue unless done so by an approved							
	contract modification. The Department will make 2 sets of Record Plans for each project, and will							
	maintain one on file in the Central Office and one of file in the District Office. The Department							
	will furnish the Contractor with the following: 1 full size, 2 half size and an electronic file copy of							
	the Record Plans at the Pre-Construction conference.							

SUBSECTION:	105.12 Final Inspection and Acceptance of Work.					
REVISION:						
SUBSECTION:	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. 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. 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 inspections; . The Department will also assume responsibility for the electrical service on a project once the Division of Traffic Operations shall be the responsibility of the Prine Contractor. 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 Prine Contractor. The Department will not be responsible for repairing damage done by other cont					
REVISION:	Replace the last sentence of the 3. Bullet with the following:					
	If the Contractor did not submit an as-bid schedule at the Pre-Construction Meeting or a written narrative in accordance with Subsection 108.02, the Cabinet will not consider the claim for delay. Delete the last paragraph from the section.					

SUBSECTION: 106.04 Buy America Requirement. REVISION: Replace the section with the following: 106.04 Buy America Requirement. Follow the "Buy America" provisions as required by Title 23 Code of Federal Regulations § 635.410. Except as expressly provided herein all manufacturing processes of steel or iron materials including but not limited to structural steel, guardrail materials, corrugated steel, culvert pipe, structural plate, prestressing strands, and steel reinforcing bars shall occur in the United States of America, including the application of: Coating, Galvanizing, Painting, and Other coating that protects or enhances the value of steel or iron products. The following are exempt, unless processed or refined to include substantial amounts of steel or iron material; and may be used regardless of source in the domestic manufacturing process for steel or iron material; Pig iron, Processed, pelletized, and reduced iron ore material, or Processed alloys. The Contractor shall submit a certification stating that all manufacturing processes involved with the production of steel or iron material and manufacture in the United States.
 106.04 Buy America Requirement. Follow the "Buy America" provisions as required by Title 23 Code of Federal Regulations § 635.410. Except as expressly provided herein all manufacturing processes of steel or iron materials including but not limited to structural steel, guardrail materials, corrugated steel, culvert pipe, structural plate, prestressing strands, and steel reinforcing bars shall occur in the United States of America, including the application of: Coating, Galvanizing, Painting, and Other coating that protects or enhances the value of steel or iron products. The following are exempt, unless processed or refined to include substantial amounts of steel or iron material; and may be used regardless of source in the domestic manufacturing process for steel or iron material: Pig iron, Processed, pelletized, and reduced iron ore material, or Processed alloys. The Contractor shall submit a certification stating that all manufacturing processes involved with the production of steel or iron materials occurred in the United States. Produce, mill, fabricate, and manufacture in the United States of America all aluminum components of bridges, tunnels, and large sign support systems, for which either shop fabrication,
 Code of Federal Regulations § 635.410. Except as expressly provided herein all manufacturing processes of steel or iron materials including but not limited to structural steel, guardrail materials, corrugated steel, culvert pipe, structural plate, prestressing strands, and steel reinforcing bars shall occur in the United States of America, including the application of: Coating, Galvanizing, Painting, and Other coating that protects or enhances the value of steel or iron products. The following are exempt, unless processed or refined to include substantial amounts of steel or iron material: Pig iron, Processed, pelletized, and reduced iron ore material, or Processed alloys. The Contractor shall submit a certification stating that all manufacturing processes involved with the production of steel or iron material and manufacture in the United States.
 or iron material, and may be used regardless of source in the domestic manufacturing process for steel or iron material: Pig iron, Processed, pelletized, and reduced iron ore material, or Processed alloys. The Contractor shall submit a certification stating that all manufacturing processes involved with the production of steel or iron materials occurred in the United States. Produce, mill, fabricate, and manufacture in the United States of America all aluminum components of bridges, tunnels, and large sign support systems, for which either shop fabrication,
 Pig iron, Processed, pelletized, and reduced iron ore material, or Processed alloys. The Contractor shall submit a certification stating that all manufacturing processes involved with the production of steel or iron materials occurred in the United States. Produce, mill, fabricate, and manufacture in the United States of America all aluminum components of bridges, tunnels, and large sign support systems, for which either shop fabrication,
The Contractor shall submit a certification stating that all manufacturing processes involved with the production of steel or iron materials occurred in the United States. Produce, mill, fabricate, and manufacture in the United States of America all aluminum components of bridges, tunnels, and large sign support systems, for which either shop fabrication,
components of bridges, tunnels, and large sign support systems, for which either shop fabrication,
Department.
Use foreign materials only under the following conditions:
 When the materials are not permanently incorporated into the project; or When the delivered cost of such materials used does not exceed 0.1 percent of the total Contract amount or \$2,500.00, whichever is greater.
The Contractor shall submit to the Engineer the origin and value of any foreign material used.
SUBSECTION: REVISION:106.10 Field Welder Certification Requirements. Insert the following sentence before the first sentence of the first paragraph:
All field welding must be performed by a certified welder unless otherwise noted.
SUBSECTION:108.02 Progress Schedule.REVISION:Insert the following prior to the first paragraph:
 Specification 108.02 applies to all Cabinet projects except the following project types: Right of Way Mowing and/or Litter Removal Waterborne Paint Striping Projects that contain Special Provision 82
 Projects that contain Special Provision 82 Projects that contain the Special Note for CPM Scheduling
Insert the following paragraph after paragraph two:
Working without the submittal of a Written Narrative is violation of this specification and additionally voids the Contractor's right to delay claims.
Insert the following paragraph after paragraph six:
The submittal of bar chart or Critical Path Method schedule does not relieve the Contractor's requirement to submit a Written Narrative schedule.

	Insert the following at the beginning of the first paragraph of A) Written Narrative.:							
	Submit the Written Narrative Schedule using form TC 63-50 available at the Division of Construction's website (<u>http://www.transportation.ky.gov/construction/ResCenter/ResCenter.htm</u>).							
	Replace Part A) Written Narrative 1. And 2. with the following:							
	 Provide a description that includes how the Contractor will sequence and stage the work, how the Contractor plans to maintain and control traffic being specific and detailed, and what equipment and crew sizes are planned to execute the work. Provide a list of project milestones including, if applicable, winter shut-downs, holidays, or special events. The Contractor shall describe how these milestones and other dates effect the prosecution of the work. Also, include start date and completion date milestones for the contract, each project if the contract entails multiple projects, each phase of work, site of work, or segment of work as divided in the project plans, proposal, or as subdivided by the Contractor. 							
SUBSECTION: REVISION:	109.07.01 Liquid Asphalt. Add the following to the Adjustable Contract Items:							
KEVISION.	Stone Matrix Asphalt for Base							
	Stone Matrix Asphalt for Surface							
SUBSECTION:	110.01 Mobilization.							
REVISION:	Replace paragraph three with the following:							
	Do not bid an amount for Mobilization that exceeds 5 percent of the sum of the total amounts bid for all items in the Bid Proposal, excluding Mobilization, Demobilization, and contingent amounts established for adjustments and incentives. The Department will automatically adjust any Bid Proposals that are in excess of this amount down to 5 percent to compare Bid Proposals and award the Contract. The Department will award a Contract for the actual amount bid when the amount bid for Mobilization is less than 5 percent, or the Department will award the Contract for the adjusted bid amount of 5 percent when the amount bid for Mobilization is greater than 5 percent. If any errors in unit bid prices for other Contract items in a Contractor's Bid Proposal are discovered after bid opening and such errors reduce the total amount bid for adjustments and incentives, so that the percent bid for Mobilization is larger than 5 percent, the Department will adjust the amount bid for Mobilization to 5 percent of the sum of the corrected total bid amounts.							
SUBSECTION: REVISION:	110.02 Demobilization. Replace the third paragraph with the following:							
	Bid an amount for Demobilization that is a minimum of \$1,000 or 1.5 percent of the sum of the total amounts bid for all other items in the Bid Proposal, excluding Mobilization, Demobilization, and contingent amounts established for adjustments and incentives. The Department will automatically adjust any Bid Proposal that is less than this amount up to \$1,000 or 1.5 percent to compare Bid Proposals and award the Contract. The Department will award a Contract for the actual amount bid when the amount bid for demobilization exceeds 1.5 percent, or the Department will award the Contract for the adjusted bid amount when the amount bid for demobilization is less than the minimum of \$1,000 or less than 1.5 percent of the sum of the total amounts bid for all other items in the Bid Proposal, excluding Mobilization, Demobilization, and contingent amounts established for adjustments and incentives.							
SUBSECTION: REVISION:	110.04 Payment. Insert the following paragraph following the demobilization payment schedule (4 th paragraph):							
	The Department will withhold an amount equal to \$1,000 for demobilization, regardless of the schedule listed above. The \$1,000 withheld for demobilization will be paid when the final estimate is paid.							

SUBSECTION: REVISION:							
	All flaggers shall be trained in current MUTCD flagging procedures. Proof of training must be available for review at the Department's request. Flagging credentials must be current within the last 5 years.						
SUBSECTION: PART:	 112.03.11 Temporary Pavement Markings. B) Placement and Removal of Temporary Striping. Replace the 2nd sentence of the first paragraph with the following: 						
REVISION:	replace the 2 sentence of the first paragraph with the following:						
	On interstates and parkways, and other roadways approved by the State Highway Engineer, install pavement striping that is 6 inches in width.						
SUBSECTION: REVISION:	112.03.12 Project Traffic Coordinator (PTC). Add the following at the end of the subsection:						
	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.						
SUBSECTION: REVISION:	112.03.15 Non-Compliance of Maintain and Control of Traffic. Add the following section:						
	112.03.15 Non-Compliance of Maintain and Control of Traffic. It is the Contractor's responsibility to conform to the traffic control requirements in the TCP, Proposal, plan sheets, specifications, and the Manual on Uniform Traffic Control Devices.						
	Unless specified elsewhere in the contract, a penalty will be assessed in the event of non- compliance with Maintain and Control of Traffic requirements. These penalties will be assessed when the Contractor fails to correct a situation or condition of non-compliance with the contract traffic control requirements after being notified by the Engineer. The calculation of accrued penalties for non-compliance will be based upon the date/time of notification by the Engineer.						
	The amount of the penalty assessed for non-compliance will be determined based upon the work zone duration, as defined by the MUTCD, and will be the greatest of the different calculation methods indicated below:						
	A) Long-term stationary work that occupies a location more than 3 days.						
	Correct the non-compliant issue within 24 hours from initial notification by the Engineer. If the issue is not corrected within 24 hours from the initial notification, a penalty for non-compliance will be assessed on a daily basis beginning from the initial notification of non-compliance. The Contractor will be assessed a \$1,000 daily penalty or the amount equal to the contract liquidated damages in Section 108.09, whichever of the 2 is greater. The penalty for non-compliance will escalate as follows for continued non-compliance after the initial notification.						
	3 Days after Notification \$1,500 daily penalty or 1.5 times the contract liquidated damages daily charge rate in Section 108.09, whichever is greater.						
	7 Days after Notification \$2,000 daily penalty or double the contract liquidated damages daily charge rate in Section 108.09, whichever is greater.						

	B) Intermediate-term stationary work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than 1 hour.
	Correct the non-compliant issue within 4 hours from initial notification by the Engineer. If the issue is not corrected within 4 hours from notification, a penalty for non-compliance will be assessed on an hourly basis beginning from the initial notification of non- compliance. The penalty for non-compliance will be assessed at \$200 per hour.
	C) Short-term stationary is work that occupies a location for more than 1 hour within a single 24-hour period.
	Correct the non-compliant issue within 1 hour from initial notification by the Engineer. If the issue is not corrected within 1 hour from notification, a penalty for non-compliance will be assessed on an hourly basis beginning from the initial notification of non-compliance. The penalty for non-compliance will be assessed at \$200 per hour.
	If the Contractor remains in violation of the Maintain and Control of Traffic requirements, or if the Department determines it to be in the public's interest, work will be suspended in accordance with Section 108.08 until the deficiencies are corrected. The Department reserves the right to correct deficiencies by any means available and charge the Contractor for labor, equipment, and material costs incurred in emergency situations.
SUBSECTION:	206.03.02 Embankment
REVISION:	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. Replace the last sentence of the second paragraph with the following:
	Initiate corrective action within 24 hours of any noted deficiency and complete the work within 7 calendar days of receipt of the report. The Contractor shall make a concentrated effort to complete any corrective action required prior to the next predicted rainfall event.
	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 7calendar days of receipt of the report. The Contractor shall make a concentrated effort to complete any corrective action required prior to the next predicted rainfall event.

SUBSECTION:	213.03.05 Temporary Control Measures.							
PART:	E) Temporary Seeding and Protection.							
REVISION:	Replace the first paragraph with the following:							
	reprice die miss paragraph with die 1918 wing.							
	Apply an Annual Rye seed mix at a rate of 100 pounds per acre during the months of March							
	through August. In addition to the Annual Rye, add 10 pounds of German Foxtail-Millet (Setaria							
	italica), when performing temporary seeding during the months of June through August. During							
	the months of September through February, apply Winter Wheat or Rye Grain at a rate of 100							
	pounds per acre. Obtain the Engineer's approval prior to the application of the seed mixture.							
SUBSECTION:	213.03.05 Temporary Control Measures.							
PART:	F) Temporary Mulch.							
REVISION:	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:	303.05 Payment.							
REVISION:	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:	401.02.04 Special Requirements for Dryer Drum Plants.							
PART:	F) Production Quality Control.							
REVISION:	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:	401.02.04 Special Requirements for Dryer Drum Plants.							
REVISION:	Add the following:							
	Dart () Water Injection System Dravided each system has reier annousless masified in							
	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:							
	 Injection equipment for water injection meets the following requirements. 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							
	(4) Flowldes attains on the water injection system that operate when the now of water is interrupted or deviates from the prescribed water rate.							
	merrupted of deviates from the presented water fate.							
SUBSECTION:	401.03.01 Preparation of Mixtures.							
REVISION:	Replace the last sentence of the second paragraph with the following:							
	Do not use asphalt binder while it is foaming in a storage tank.							

SUBSECTION:	401.03.01 Preparation of Mixtures.								
REVISION:	Replace the third paragraph and Mixing and Laying Temperature table with the following:								
	Maintain the temperature of the component materials and asphalt mixture within the ranges listed in								
	the following table:								
		AIXING AND LAYING							
	Material Minimum Maximum Aggregates 240 330								
	Aggregates used with Recycled Asphalt Pavement 240 — (RAP) Asphalt Binders PG 64-22 230 330								
	Asphalt Binders	330 350							
	Asphalt Mixtures at Plant	PG 64-22 HMA	250	330					
	(Measured in Truck)	PG 76-22 HMA PG 64-22 WMA	310 230	350 275					
		PG 64-22 WMA PG 76-22 WMA	250 250	300					
	Asphalt Mixtures at Project	PG 64-22 HMA	230	330					
	(Measured in Truck	PG 76-22 HMA	300	350					
	When Discharging)	PG 64-22 WMA PG 76-22 WMA	210 240	275 300					
	<u> </u>	10/0-22 WIMA	240	300					
SUBSECTION: REVISION:	402.01 Description. Replace the paragraph with the following:								
GUDGECTION	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.								
SUBSECTION REVISION:	402.01.01 Warm Mix Asphalt (WMA) Evaluation and Approval. Add the following subsection:								
	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.								
SUBSECTION: REVISION:	402.05.02 Asphalt Mixtures and Mixtures With RAP. Replace Subsection Title as below:								
	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP.								
SUBSECTION: REVISION:	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Replace the paragraph with the following:								
	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 sublot and average the sublot 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.								

SUBSECTION: PART:	1 , 5								
REVISION:									
	C) HMA, WMA and RAP Mixtures Placed on Shoulders or Placed as Asphalt Pavement Wedge.								
	 Placed monolithically with the Mainline – Width of 4 feet or less. The Department will pay as mainline mixture. 								
	 Placed monolithically with the Mainline – Width of greater than 4 feet. The Department will pay as mainline mixture but use 1.00 for the Lane and Joint Density Pay Value for shoulder or Asphalt Pavement Wedge quantities. 								
	 Placed Separately. The Department will use 1.00 for the Lane and Joint Density Pay Value. 								
SUBSECTION: PART: REVISION:	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:								
	D) HMA, WMA, and RAP Mixtures Placed Monolithically as Asphalt Pavement Wedge.								
	Delete the following: D) HMA, WMA, and RAP Mixtures Placed Monolithically as Asphalt Pavement Wedge. The Department will pay as mainline mixture but use a 1.00 pay value for all properties.								
SUBSECTION:	402.05.02 Asphalt Mixtures for Temporary Pavement.								
PART: REVISION:	E) Asphalt Mixtures for Temporary Pavement.Replace E) Asphalt Mixtures for Temporary Pavement with the following:								
	D) Asphalt Mixtures for Temporary Pavement.								
SUBSECTION: PART:	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP.								
TABLES:	Lot Pay Adjustment Schedule, Compaction Option A, Base and Binder Mixtures VMA								
REVISION:	Replace the VMA table with the following:								
	VMA								
	Pay Value Deviation								
	$\frac{\text{From Minimum}}{1.00} \ge \min. \text{VMA}$								
	0.95 0.1-0.5 below min.								
	$\begin{array}{c cccc} 0.90 & 0.6-1 & 0 \text{ below min.} \\ \hline (1) & > 1.0 \text{ below min.} \\ \end{array}$								
SUBSECTION: PART:	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Lot Pay Adjustment Schedule, Compaction Option A, Surface Mixtures								
TABLES:									
REVISION:	Replace the VMA table with the following:								
	VMA								
	Pay Value Deviation								
	From Minimum								
	$1.00 \ge \min. VMA$								
	0.95 0.1-0.5 below min.								
	$\frac{0.90}{(I)} > 1.0 \text{ below min.}$								

SUBSECTION: PART: TABLE: REVISION:	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:									
	VMA									
			Pay Value	Dev	viation	1				
			From Minimum							
			1.00 ≥min. VMA							
			0.95 0 1-0.5 bel w min.							
			0.9		below min					
			(2)	> 1.0 b	elow min.					
SUBSECTION: PART: NUMBER: REVISION:	 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: 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: 							he relationship		
					Numb	er of Gyr	ations			
		Class	ESAL's (millio	ons)	$N_{ m initial}$	$N_{ m design}$	N _{max}			
		2 3	< 3.0 3.0 to < 30.0	0	6 7	50 75	75 115			
	}	4	<u> </u>	0	8	100	160			
SUBSECTION: PART: REVISION:	 403.03.09 Leveling and Wedging, and Scratch Course. A) Leveling and Wedging. Replace the first sentence of the first paragraph with the following: Conform to the gradation requirements (control points) of AASHTO M 323 for base, binder, or surface as the Engineer directs. 									
SUBSECTION:			ing, and Scratch Co	ourse.						
PART: REVISION:	B) Scratch Cou Replace the sec		of the first paragraph	n with the	e followii	ng:				
	Replace the second sentence of the first paragraph with the following: Conform to the gradation requirements (control points) of AASHTO M 323 for base, binder, or surface as the Engineer directs.									
SUBSECTION: REVISION:	407.01 DESCR	IPTION.	he paragraph with th	ne follow	ving:					
	Construct a pavement wedge composed of a hot-mixed or warm-mixed asphalt mixture.									
SUBSECTION: REVISION:	409.01 DESCRIPTION. Replace the first sentence of the paragraph with the following:									
	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.									
SUBSECTION: REVISION:	410.01 DESCRIPTION. Delete the second sentence of the paragraph.									

SUBSECTION:	410.03.01 Corrective Work.
REVISION:	Replace the last sentence of the paragraph with the following:
	r and the rest of
	Provide a final surface comparable to the adjacent pavement that does not require corrective work
	in respect to texture, appearance, and skid resistance.
SUBSECTION:	410.03.02 Ride Quality.
PART:	B) Requirements.
NUMBER:	1) Category A.
REVISION:	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:	410.03.02 Ride Quality.
PART:	B) Requirements.
NUMBER:	2) Category B.
REVISION:	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.
GUDGEGEION	
SUBSECTION: REVISION:	410.05 PAYMENT. Add the following sentence to the end of the first paragraph:
KEVISION:	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.
GUDGEGEION	
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:
	more the rono wing sentence between the rist and second sentence of the rist 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:	413.05.02 CL3 SMA BASE 1.00D PG 76-22.
TABLE:	JOINT DENSITY TABLE
REVISION:	Replace the joint density table with the following:
	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
SUBSECTION:	413.05.03 CL3 SMA SURF 0.50A PG76-22 and CL3 SMA SURF 0.38A PG76-22.
REVISION:	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.
	1

SUBSECTION: TABLE: REVISION:	JOINT DENSIT		A PG76-22 and CL3 SMA h the following:	SURF 0.38A PG76-22.	
			DENSITY		ı
		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	
		(1)	< 91.0 or > 97.5		
SUBSECTION:	501.05.02 Ride (Quality.			
REVISION:			end of the first paragraph	:	
	The sum of the p whole.	bay value adjustm	ents for the ride quality sh	all not exceed \$0 for the	e project as a
SUBSECTION: REVISION:	505.03.04 Detec Replace the first	etable Warnings. sentence with the	following:		
	Install detectable Standard Drawin		nt all sidewalk ramps and o	on all commercial entrar	nces according to the
SUBSECTION: REVISION:	505.04.04 Detect Replace the para	table Warnings. graph with the fol	llowing:		
	projects will requ applicable to the incidental to the	uire the removal o project. The cost	quantity in square feet. A of existing sidewalks to me associated with the remo gs bid item or incidental t e noted.	eet the requirements of t val of the existing sidew	he standard drawings /alk will be
SUBSECTION: REVISION:	505.05 PAYME Add the followin	NT. Ing to the bid item	table:		
	<u>Code</u> 23158ES505	Pay Item Detectable W	arnings <u>Pay Unit</u> Square Foo	t	
SUBSECTION: REVISION:	509.01 DESCRI Replace the seco	PTION. nd paragraph with	n the following:		
	Research Prograt the Standard Dra length, material,	m (NCHRP) 350 ' wings. Obtain th drain slot dimens et or less from the	e of similar units that conf Test Level 3 (TL-3) requir e Engineers approval prio ions and locations typical e NCHRP 350 TL-3 for Te	rements and the typical f r to use. Ensure the barr features are met and the	features depicted by rier wall shape, reported maximum

SUBSECTION:	601.03.02 Concrete Producer Responsibilities.
REVISION:	Replace the first sentence with the following:
	Obtain the concrete from producers that are in compliance with KM 64-323 and on the Department's List of Approved Materials.
	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.
SUBSECTION: PART:	601.03.02 Concrete Producer Responsibilities. B) Certified Personnel.
REVISION:	Replace the second sentence with the following:
	Ensure that the concrete technicians are certified as ACI Level I (Level I) and KRMCA Level II (Level II).
SUBSECTION:	601.03.02 Concrete Producer Responsibilities.
PART: REVISION:	C) Quality Control. Replace the second sentence with the following:
	Ensure that the Level II concrete technician is present when work is in progress and is responsible for inspecting trucks, batch weight calculations, monitoring batching, making mixture adjustments, reviewing the slump, air content, unit weight, temperature, and aggregate tests, all to provide conforming concrete to the project.
SUBSECTION:	601.03.02 Concrete Producer Responsibilities.
PART: REVISION:	D) Producer Testing. Replace with the following:
	When producing for state work, have a Qualified Concrete Aggregate Technician or KYTC Qualified Aggregate Technician perform, at a minimum, weekly gradations and minus 200 wash tests and daily moisture contents of coarse and fine aggregate (Fine aggregates will not require a minus 200 wash test). Using the daily moisture contents, adjust the approved mix design accordingly prior to production. Ensure that the Level II concrete technician is present when work is in progress and is responsible for inspecting trucks, batch weight calculations, monitoring batching, making mixture adjustments, reviewing the slump, air content, unit weight, temperature, and aggregate tests, all to provide conforming concrete to the project.
SUBSECTION:	601.03.02 Concrete Producer Responsibilities.
PART: REVISION:	E) Trip Tickets. Replace the second sentence with the following:
	Include on the trip ticket the Sample ID for the approved mix design and a statement certifying that the data on the ticket is correct and that the mixture conforms to the mix design.
SUBSECTION:	601.03.03 Proportioning and Requirements.
PART: NUMBER: REVISION:	C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures2) Mineral Admixtures.Replace the second sentence with the following:
	Reduction of the total cement content by a combination of mineral admixtures will be allowed, up to a maximum of 40 percent.

SUBSECTION:	601.03.03 Proportioning and Requirements.
PART:	C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures
NUMBER:	2) Mineral Admixtures.
LETTER:	a) Fly Ash.
REVISION:	Delete the last sentence of the third paragraph.
	Delete the last sentence of the third paragraph.
SUBSECTION:	601.03.03 Proportioning and Requirements.
PART:	C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures
NUMBER:	2) Mineral Admixtures.
LETTER:	b) Ground Granulated Blast Furnace Slag (GGBF Slag).
REVISION:	Delete the second sentence of the third paragraph.
SUBSECTION:	601.03.03 Proportioning and Requirements.
PART:	E) Measuring.
REVISION:	Add the following sentence:
	Conform to the individual ingredient material batching tolerances in Appendix A.
SUBSECTION:	601.03.09 Placing Concrete.
PART:	A) General.
REVISION:	Replace the last sentence of the fourth paragraph with the following:
	Do not use aluminum or aluminum alloy troughs, pipes, or chutes that have surface damage or for
	lengths greater than 20 feet.
	Replace the second sentence of the fifth paragraph with the following:
	Replace the second sentence of the fifth paragraph with the following.
	With a manufactor of the deliver of the model that is a minimum of 2 with a model of the
	When pumping, equip the delivery pipe with a nozzle, having a minimum of 2 right angles, at the
	discharge end. Alternate nozzles or restriction devices may be allowed with prior approval by the
	Engineer.
SUBSECTION:	605.02.05 Forms.
REVISION:	Delete the last sentence.
SUBSECTION:	605.03.04 Tack Welding.
REVISION:	Replace with the following:
	The Department does not allow tack welding.
SUBSECTION:	606.02.11 Coarse Aggregate.
REVISION:	Replace with the following:
	· · · · · · · · · · · · · · · · · · ·
	Conform to Section 805, size No. 8 or 9-M.
SUBSECTION:	609.03.04 Expansion and Fixed Joints.
PART:	D) Preformed Neoprene Joint Seals.
REVISION:	Replace the last sentence of paragraph seven with the following:
KEVISION:	keptale me tast sentence of paragraph seven with the following:
	Field onlines will not be allowed during nortial width construction. It is Contracted?
	Field splices will not be allowed during partial width construction. It is Contractor's responsibility to
	determine and install the length of seal required for the joint to barrier wall as per the standard drawing.
SUBSECTION:	609.03.09 Finish with Burlap Drag.
REVISION:	Delete the entire section.
SUBSECTION:	609.04.06 Joint Sealing.
REVISION:	Replace Subsection 601.04 with the following:
	ι · · · · · · · · · · · · · · · · · · ·
	Subsection 606.04.08.

GUDGEGTION	
SUBSECTION:	609.05 Payment.
REVISION:	Replace the Pay Unit for Joint Sealing with the following:
	See Subsection 606.05.
SUBSECTION:	701.03.06 Initial Backfill.
REVISION:	Replace the first sentence of the last paragraph with the following:
	replace die filst sentence of die last putagraph with die fonowing.
	When the Contract specifies, perform quality control testing to verify compaction according to KM 64- 512.
GUDGEOTION	
SUBSECTION: REVISION:	701.03.08 Testing of Pipe. Replace and rename the subsection with the following:
	 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. 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. Notify the Engineer immediately if distresses or locations of improper installation are discovered. When camera testing shows distresses or 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 LR
SUBSECTION: REVISION:	701.04.07 Testing. Replace and rename the subsection with the following:
	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.

SUBSECTION:	701.05 PAYMENT.			
REVISION:	Add the following pay item to the <u>Code</u> Pay I			Pay Unit
	23131ER701 Pipel	ine Video Inspection		Linear Foot
	-			
SUBSECTION:	701.05 PAYMENT			
TABLE: REVISION:	PIPE DEFLECTION DETERMIN Replace this table with the follow		STING	
	Replace this table with the follow	ing table and note.		
		PIPE DEFLE	CTION	
	Amount of Deflection	(%)	Payment	
	0.0 to 5.0		100% of the	e Unit Bid Price
	5.1 to 9.9		50% of the	Unit Bid Price ⁽¹⁾
	10 or greater		Remove and	d Replace
	(1) Provide Structural Analysis allowed to remain in place at the		Based on the s	structural analysis, pipe may be
SUBSECTION:	701.05 PAYMENT			
TABLE:	PIPE DEFLECTION DETERMIN	NED BY MANDREL 1	FESTING	
REVISION:	Delete this table.		201110	
SUBSECTION:	713.02.01 Paint.			
REVISION:	Replace with the following:			
	Conform to Section 842 and Secti	ion 846.		
SUBSECTION:	713.03 CONSTRUCTION.			
REVISION:	Replace the first sentence of the s	econd paragraph with t	he following:	
	On interstates and parkways and	other routes approved b	ov the State F	Highway Engineer, install pavement
	striping that is 6 inches in width.	other routes approved t	by the State I	ngnway Engineer, instan pavement
SUBSECTION:	713.03.03 Paint Application.	1. (h., f., 1)		
REVISION:	Replace the second paragraph wit	n the following table:		
	Material	Paint Application	Rate	Glass Beads Application Rate
	4 inch waterborne paint	Min. of 16.5 gallon	s/mile	Min. of 6 pounds/gallon
	6 inch waterborne paint	Min. of 24.8 gallons		Min. of 6 pounds/gallon
GUDGECTION	6 inch durable waterborne paint	Min. of 36 gallons/n	nile	Min. of 6 pounds/gallon
SUBSECTION: REVISION:	713.03.04 Marking Removal. Replace the last sentence of the pa	aragraph with the follo	wing	
	Replace the last sentence of the pl	aragraph with the follo	wing.	
	Vacuum all marking material and	removal debris concur	rently with th	e marking removal operation.
SUBSECTION: REVISION:	713.05 PAYMENT. Insert the following codes and pay	v items below the Pave	ment Strining	y – Permanent Paint
	more the renowing codes and pa			
	Code Pay Item		•	' Unit
		orne Marking – 6 IN W		ear Foot
		orne Marking – 6 IN Y orne Marking – 12 IN V		ear Foot ear Foot
		12 11		

SUBSECTION:	714.03 CONSTRUCTION.
REVISION:	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:	714.03.07 Marking Removal.
REVISION:	Replace the third sentence of the paragraph with the following:
	Vacuum all marking material and removal debris concurrently with the marking removal operation.
SUBSECTION:	716.01 DESCRIPTION.
REVISION:	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:	716.02.01 Roadway Lighting Materials.
REVISION:	Replace the last two sentences of the paragraph with the following:
	Submit for material approval an electronic file of descriptive literature, drawings, and any requested design data to the Division of Traffic Operations. Do not begin work until shop drawings are approved.
	Notify the Engineer when submitting any information to the Division of Traffic Operations. Do not
	make substitutions for approved materials without written permission as described above.
SECTION:	717 – THERMOPLASTIC INTERSECTION MARKINGS.
REVISION:	Replace the section name with the following:
	INTERSECTION MARKINGS.
SUBSECTION:	717.01 DESCRIPTION:
REVISION:	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:	717.02 MATERIALS AND EQUIPMENT.
REVISION:	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.
L	

SUBSECTION:	717.03.05 Proving Period.		
PART:	A) Requirements.		
REVISION:	Insert the following to this section	ion:	
	2) Type I Tape. During the pro-	oving period, ensure that the pavement marking mater	ial shows no signs
		essive cracking, bleeding, staining, discoloration, oil c	
		chipping, spalling, poor adhesion to the pavement, los	
		age, and normal wear. Type I Tape is manufactured o	
		to meet certain retroreflective requirements. As long a	
		e and shows no signs of failure due to the other items	
		roreflectivity readings will not be required. In the abs	ence of readings,
	the Department will accept tape	based on a nightline visual observation.	
SUBSECTION:	717.03.06 Marking Removal.		
REVISION:	Replace the third sentence of th	e paragraph with the following:	
	Vacuum all marking material and	nd removal debris concurrently with the marking remo	oval operation.
SUBSECTION:	717.05 PAYMENT.		
REVISION:	Insert the following bid item co	des:	
	Code	Pay Unit	Pay Item
	06563	Pave Marking $- R/R X$ Bucks 16 IN	Linear Foot
	20782NS714	Pave Marking Thermo – Bike	Each Linear Foot
	23251ES717, 23264ES717 23252ES717, 23265ES717	Pave Mark TY I Tape X-Walk, Size Pave Mark TY I Tape Stop Bar, Size	Linear Foot
	23253ES717, 25265ES717 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	Tave Mark III Tape Anow, Type	Lacii
	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
SUBSECTION: REVISION:	725.02.02 Type VI Class C & C Replace bullet 2) with the follo		
KEVISION:	Replace bullet 2) with the follo	owing.	
	2) The SCI100GM Syste	m as developed by SCI Products, Inc. of St. Charles, 1	Illinois. For all
		work conform to ASTM A 36 and galvanize according	
		nder panels conform to AASHTO 180. Galvanize the	
	panels and SCI100GN	1 -beam connectors after fabrication according to AST	TM A 123.
SUBSECTION:	725.02.04 Type VII Class C.		
REVISION:	Replace bullet 2) with the follow	wing.	
		m as developed by SCI Products, Inc. of St. Charles, 1	Illinois. For all
		vork conform to ASTM A 36 and galvanize according	
		nder panels conform to AASHTO 180. Galvanize the	
	panels and SCI100GN	I-beam connectors after fabrication according to AST	M A 123.
SUDSECTION.			
SUBSECTION: REVISION:	801.01 REQUIREMENTS.	e first paragraph and add the following to the second p	aragraph
KE V 1510IN:	Defete the fourth sentence of th	e mist paragraph and add the following to the second p	paragraph.
	When supplying cement with a	SO ₃ content above the value in table I of ASTM C 15	0, include
		ay expansion test data for the supplied SO ₃ content on	

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. Delete footnote (1) The permissible lightweight particle content of gravel coarse aggregate for reinforced
	concrete box culvert sections, concrete pipe, pipe arches, or for use only in concrete that will be permanently protected from freezing by 2 feet or more of cover is 10.0 percent.
SUBSECTION:	805.04 CONCRETE.
REVISION:	Replace the "AASHTO T 160" reference in first sentence of the third paragraph with "KM 64-629"
SUBSECTION:	805.15 GRADATION ACCEPTANCE OF NON-SPECIFICATION COARSE AGGREGATE.
TABLE:	AGGREGATE SIZE USE
PART:	Cement Concrete Structures and Incidental Construction
REVISION:	Replace "9-M for Waterproofing Overlays" with "8 or 9-M for Waterproofing Overlays"

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

					0	IZES C	SIZES OF COARSE AGGREGATES	SE AC	GKEG	ALES							
	Sieve		A	MOUNTS	AMOUNTS FINER THAN EACH LABORATORY SIEVE (SQUARE OPENINGS) PERCENTAGE BY WEIGHT	AN EACH	I LABORAT	ORY SIE	EVE (SQU/	NRE OPEN	INGS) PEH	RCENTAGE	E BY WEIG	ЭНТ			
Aggregate Size	Nominal ⁽³⁾ Maximum Aggregate Size	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	3 ½ 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				100	90-100	35-70	0-15		0-5							
357	2 inch				100	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 ^(I)	1 ½ inch				100		90-100		60-95		30-70	15-55			5-20		0-8
DIONE DINC																	Ľ.

Sizes shown for convenience and are not to be considered as coarse aggregates.
 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 pugnill to obtain designated sizes.

Supplemental Specifications to The Standard Specifications for Road and Bridge Construction, 2008 Edition (Effective with the July15, 2011 Letting)

SUBSECTION: REVISION:	805.16 SAMPLING AND TESTING. Replace the "AASHTO T 160" method with the "KM Test.	A 64-629" method for the Concrete Beam Expansion				
	Replace the "ASTM D 3042" method with the "KM	64-625" method for Insoluble Residue.				
SUBSECTION:						
REVISION:						
SUBSECTION:						
PART:						
REVISION:						
	B) Culvert Pipe, Storm Sewer, and Entrance Pipe.					
SUBSECTION:	823.02 LIQUID MEMBRANE FORMING COMPO	UNDS.				
REVISION:	Add the following:					
	Effective July 1, 2011, to remain on or be added to the					
	completed testing or been submitted for testing throu					
	Program (NTPEP) for Concrete Curing Compounds.					
SUBSECTION:	837.03 APPROVAL.					
REVISION:	Replace the last sentence with the following:					
	The Department will sample and evaluate for approv					
	use per contract prior to installation of the thermopla					
	thermoplastic material until it has been approved by					
	minimum of 10 working days to evaluate and approv	e inermopiastic material.				
SUBSECTION:	837.03.01 Composition.					
REVISION:	COMPOSITION Table:					
	Replace					
	Lead Chromate	0.0 max. 4.0 min.				
	with Heavy Metals Content	Comply with 40 CFR 261				
	Treavy Wreats content	Comply with 40 Cl K 201				
SUBSECTION:	842.02 APPROVAL.					
TABLE:	PAINT COMPOSITION					
REVISION:	Revise the following in the table:					
	Replace the 2.0 Δ E* values in the table with 4.0 Δ E*	for both Yellow and White Paint on both the				
	Daytime and Nighttime Color Spectrophotometer.					
SECTION:	DIVISION 800 MATERIAL DETAILS					
REVISION:						
	SECTION 846 – DURABLE WATERBORNE PAINT					
	846.01 DESCRIPTION. This section covers quick-drying durable waterborne pavement striping paint					
	for permanent applications. The paint shall be read	ly-mixed, one-component, 100% acrylic waterborne				
		ffic-bearing surfaces as Portland cement concrete,				
	bituminous cement concrete, asphalt, tar, and previou	usly painted areas of these surfaces.				
	846.02 Approval. Select materials that conform to t	the composition requirements below Provide				
	independent analysis data and certification for each f					
1						
1	heavy metal present, the test method used for each de	etermination, and compliance to 40 CFK 201 for				

Supplemental Specifications to The Standard Specifications for Road and Bridge Construction, 2008 Edition (Effective with the July15, 2011 Letting)

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.

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.

PAINT COMPOSITION						
Property and Test Method	Yellow	White				
Daytime Color (CIELAB)	L* 81.76	L* 93.51				
Spectrophotometer using	a* 19.79	a* -1.01				
illuminant D65 at 45°	b* 89.89	b* 0.70				
illumination and 0° viewing with	Maximum allowa le	Maximum allowable variation				
a 2° observer	variation $4.0\Delta E^*$	4.0ΔE*				
Nighttime Color (CIELAB)	L* 86.90	L* 93.45				
Spectrophotometer using	a* 24.80	a* -0.79				
illuminant A at 45° illumination	b* 95.45	b* 0.43				
and 0° viewing with a 2° observer	Maximum allowable variation	Maximum allowable variation				
	4.0AE*	4.0ΔE*				
Heavy Metals Content	Comply with 40 CFR 261	Comply with 40 CFR 261				
Titanium Dioxide	NA	10% by weight of pigment				
ASTM D 4764		min.				
VOC	1.25 lb/gal max.	1.251 /gal ma .				
ASTM D 2369 and D 4017	_					
Contrast Ratio	0.97	0.99				
(at 15 mils wft)						

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 nonspecification paint was used.

Non- conforming Property	Resin	Color	Contrast	TiO ₂	VOC	Heavy Metals Content
Reduction Rate	60%	10%	10%	10%	60%	60%

Supplemental Specifications to The Standard Specifications for Road and Bridge Construction, 2008 Edition (Effective with the July15, 2011 Letting)

APPENDIX A:	TABLUATION OF CONSTRUCTION TOLERANCES.
PART:	601.03.03
REVISION:	Replace with the following:
	Concrete accuracy of individual ingredient material for each batch. $\pm 2.0\%$ for aggregates $\pm 1.0\%$ for water $\pm 1.0\%$ for cement in batches of 4 cubic yards or greater $\pm 1.0\%$ for total cementitious materials in batches of 4 cubic yards or greater 0.0% to $+ 4.0%$ for cement in batches less than 4 cubic yards 0.0% to $+ 4.0%$ for total cementitious materials in batches less than 4 cubic yards 0.0% to $+ 4.0%$ for total cementitious materials in batches less than 4 cubic yards 0.0% to $+ 3.0%$ for admixtures
APPENDIX A: PART: REVISION:	TABLUATION OF CONSTRUCTION TOLERANCES. 601.03.03 C) 2) Delete

SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

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

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

2.0 MATERIALS.

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

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

2.2 Sign and Controls. All signs must:

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

- 11) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
- 12) Provide a photocell control to provide automatic dimming.
- 13) Allow an on-off flashing sequence at an adjustable rate.
- 14) Provide a sight to aim the message.
- 15) Provide a LED display color of approximately 590 nm amber.
- 16) Provide a controller that is password protected.
- 17) Provide a security device that prevents unauthorized individuals from accessing the controller.
- 18) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

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

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

2.3 Requirements for Flip-Disc Type Signs. Flip-disc type signs will have the following additional requirements:

- 1) Disc faces are fluorescent yellow on one side, and flat black on the reverse.
- 2) Discs are at least 3.5 square inches with a minimum character size of 5 discs horizontally by 7 discs vertically.
- 3) Discs are designed to operate without lubrication for at least 200 million operations.
- 4) Line change speed of 600 milliseconds or less.
- 5) When power is lost, the sign automatically becomes blank or displays a preprogrammed default message.

2.4 Power.

- Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.
- 2) Diesel Power Source. Ensure the following is provided for:
 - a) At least 24 spare bulbs available on the project for quick replacement of burned out bulbs.
 - b) Black light at both top and bottom of each line to illuminate discs for visibility at night or under adverse weather conditions, for flip disk signs.

1I

- c) Diesel generator and electric start assembly, including batteries and a fuel capacity adequate to provide at least 72 hours continuous operation without refueling.
- d) Fuel gage.
- e) Provide all other specific features, such as bulb size, protection from sun glare, and shock protection for electronics and bulbs, to the satisfaction of the Engineer.

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

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

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

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

4.0 MEASUREMENT. The final quantity of Variable Message Sign will be the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

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

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

January 5, 2010

9V

SPECIAL NOTE FOR ALUMINUM AND STEEL STRUCTURAL PLATE BOX CULVERTS

This Special Note will apply when indicated on the plans or in the proposal. Section references herein are to the Department's 2008 Standard Specifications for Road and Bridge Construction.

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

2.0 MATERIALS.

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

Before beginning erection, furnish to the Engineer applicable shop drawings, erection layouts, and manufacturer's brochures. The Department will accept plates and accessories by certificate of compliance from the manufacturer.

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

The Department will accept comparable aluminum structures produced by other companies when the Engineer approves. For such approval, submit sufficient data and design calculations to show that the proposed structures are equal in all respects to the Contech product and also include evidence of actual installations now in service that are performing satisfactorily.

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

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

2.1.2 Steel Structure. Use either (1) Contech Construction Products' Multi-Plate Steel Box Culvert; or (2) Lane Metal Products Company's Low Profile Box Culvert.

The Department will accept comparable steel structures produced by other companies when the Engineer approves. For such approval, submit sufficient data and design calculations to show that the proposed structures are equal in all respects to those specified above and also include evidence of actual installations now in service that are performing satisfactorily.

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

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

2.3 Bedding Material. Use sand that conforms to Subsection 804.08.

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

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

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

3.0 CONSTRUCTION.

3.1 Technical Representative. Provide a technical representative from the structure producer to advise at the start of the project. Ensure the technical representative is available thereafter to assist in the event problems or special circumstances arise. Technical assistance shall be provided at no additional cost to the Department.

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

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

On structures with a full metal invert, excavate the entire area covered by the invert plates to a point 3 inches below grade and level with 3 inches of bedding material before placing the invert plates.

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

Backfill the additional excavation with an earth cushion of firmly compacted fine soils in layers of 6 inches or less, prior to placing the 3 inches sand bedding layer.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

4.0 MEASUREMENT.

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

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

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

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

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

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

4.3 Steel Structural Plate Box Culvert. See 4.2.

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

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

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

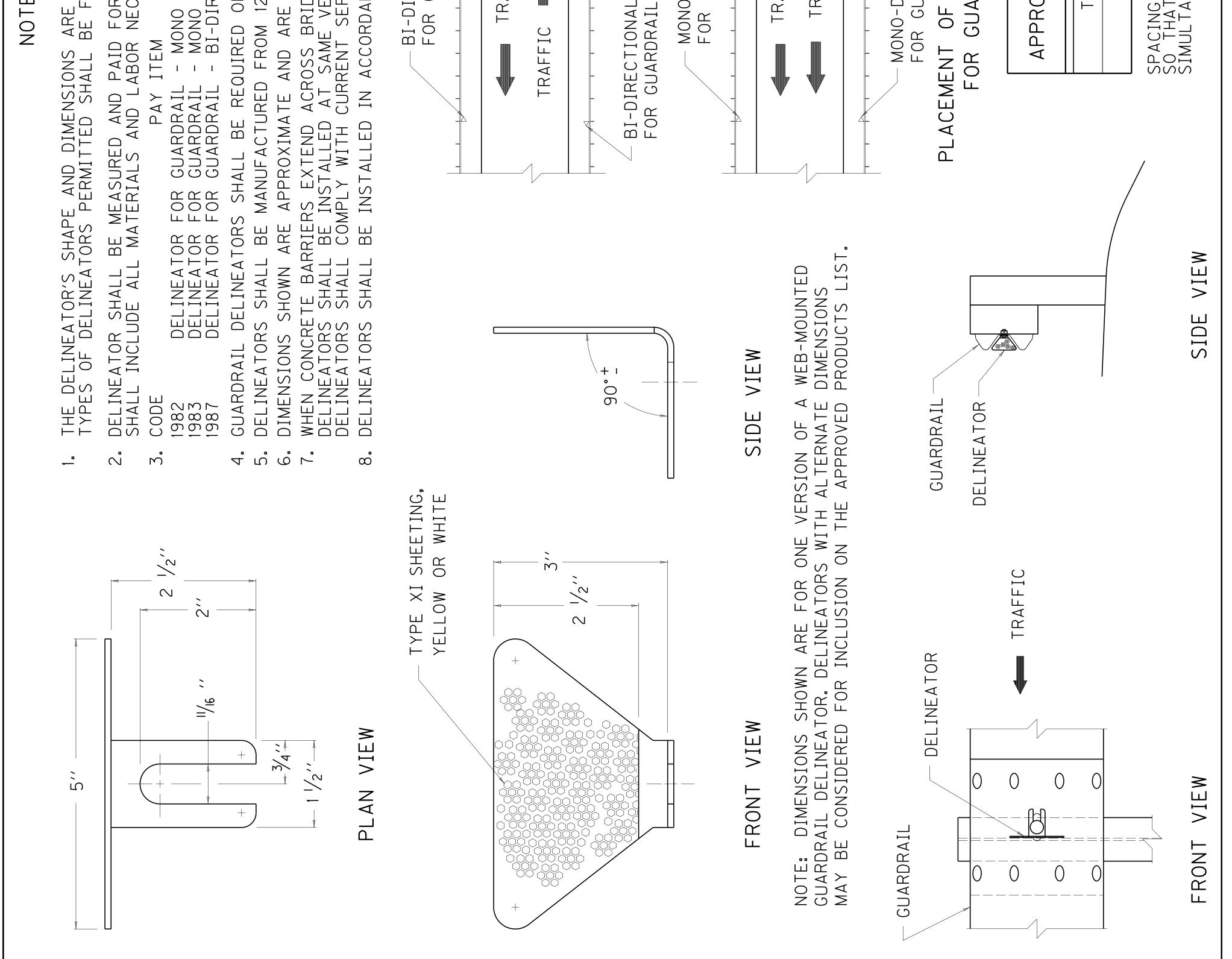
Code	Pay Item	<u>Pay Unit</u>
20694EN	Aluminum Structural Plate Box Culvert	Linear Foot
20695EN	Steel Structural Plate Box Culvert	Linear Foot
	Structure Excavation, as classified	See Section 603.05
	Concrete, Class	See Section 601.05
	Steel Reinforcement	See Section 602.05

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

STANDARD DRAWINGS THAT APPLY

TYPICAL GUARDRAIL INSTALLATIONS	
TYPICAL GUARDRAIL INSTALLATIONS	
INSTALLATION OF GUARDRAIL END TREATMENT TYPE 1	
STEEL BEAM GUARDRAIL (W-BEAM)	
GUARDRAIL COMPONENTS	
GUARDRAIL TERMINAL SECTIONS	
GUARDRAIL POSTS	
GUARDRAIL POSTS	
GUARDRAIL END TREATMENT TYPE 1	
SILT TRAP - TYPE A	RDX-220-04
SILT TRAP - TYPE B	RDX-225
SILT TRAP - TYPE C	RDX-230
CURVE WIDENING AND SUPERELEVATION TRANSITIONS	RGS-001-06
MISCELLANEOUS STANDARDS PART 1	
ONE POINT PROCTER FAMILY OF CURVES	RGX-200
NETTING	RRE-002-04
LANE CLOSURE TWO-LANE HIGHWAY CASE I	
LANE CLOSURE TWO-LANE HIGHWAY CASE II	TTC-105-01
SHOULDER CLOSURE	TTC-135-01
POST SPLICING DETAIL	TTD-110-01
MOBILE OPERATION FOR PAINT STRIPING CASE I	
MOBILE OPERATION FOR PAINT STRIPING CASE II	TTS-105-01
RAILING SYSTEM, TYPE II, GUARDRAIL TREATMENT	BHS-007-05

	COUNTY OF ITEM NO.	CB 01 011 182 .ON LEEHS
 SHOWN FOR ILLUSTRATION PURPOSES ONLY. FROM THE LIST OF APPROVED MATERIALS. R AT THE CONTRACT UNIT PRICE EACH AND CESSARY FOR ONE COMPLETE INSTALLATION. PAY UNIT DIRECTIONAL WHITE DIRECTIONAL WHITE EACH EACH EACH EACH N ALL GUARDRAIL. N ALL GUARDRAIL. ON ALL GUARDRAIL. C GA. GALVANIZED STEEL. C GA. GALVANIZED STEEL. C SUBJECT TO MANUFACTURER'S TOLERANCES. DGE STRUCTURES IN LIEU OF STEEL BEAM GUA ERTICAL ALIGNMENT AS ON THE GUARDRAIL, AN PIA DRAWING 004. 	- ARDRAIL,	22 003-004
IRECTIONAL WHITE DELINEATOR GUARDRAIL FACING TRAFFIC AFFIC		
WHITE DELINEATOR FACING TRAFFIC DIRECTIONAL WHITE DELINEATOR GUARDRAIL FACING TRAFFIC		
DELINEATO		$\wedge / / 1$
DIRECTIONAL YELLOW DELINEATOR UARDRAIL FACING TRAFFIC DELINEATORS ARDRAIL	ISOMETRIC VIE	>
OXIMATE DELINEATOR SPACING	KENTUCKY 3partment of high	WAYS
FANGENT 100' CURVE 50'	DELINEATORS FOR GUARDRAIL	
SHOULD BE ADJUSTED IN CURVES T SEVERAL DELINEATORS ARE ALWAYS ANEOUSLY VISIBLE TO THE ROAD USER.	ITTED DIRECTOR DIVISION OF DESIGN	Page 84 0 2 00 1



NOT

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 administrating 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 workweek 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 not apply to this Contract.

TRANSPORTATION CABINET DIVISION OF CONSTRUCTION PROCUREMENT COMPLIANCE SECTION PROJECT WAGE RATES

WORKERS......MINIMUM HOURLY RATE.....\$7.25

Note: Parts III and IV of **"Labor and Wage Requirements Applicable to Other Than Federal-Aid System Projects"** do not apply to this project.

BOYLE COUNTY CB01 011 1822 003-004 **EVAPLOY OF A CONTROL OF A DOMAGE AND HOURD DIVISION**

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

FEDERAL MINIMUM WAGE \$7.25 PER HOUR BEGINNING JULY 24, 2009

OVERTIME PAY At least $1\frac{1}{2}$ times your regular rate of pay for all hours worked over 40 in a workweek.

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

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

No more than

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

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

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

ENFORCEMENT T

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

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

ADDITIONAL INFORMATION

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



U.S. Department of Labor | Wage and Hour Division

PART IV

INSURANCE

INSURANCE

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

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

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

PART V

BID ITEMS

KENTUCKY TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS FRANKFORT, KY 40622

	ACT ID: 12241 COUNTY: BOYLE OPOSAL: CB01		PAGE: 1 LETTING: 05/18/ CALL NO: 311				
LINE NO	 ITEM 	DESCRIPTION		DXIMATE N ANTITY	JNIT	UNIT PRICE	 AMOUNT
	SECTION 0001						
0010	00001 		 	39.000	TON		
0020		CL2 ASPH BASE 1.00D PG64-22	 	40.000	TON		
0030	00301 	CL2 ASPH SURF 0.38D PG64-22	 	42.000	TON	 	
0040	 01982 	DELINEATOR FOR GUARDRAIL-WHITE	 	18.000	EACH	 	
0050	02014 	BARRICADE-TYPE III		6.000	EACH	 	
0060	02187	SITE PREPARATION		1.000	EACH		
0070	02230	EMBANKMENT IN PLACE		77.000	CUYD		
0080	02351	GUARDRAIL-STEEL W BEAM-S FACE		250.000	LF		
0090	02355	GUARDRAIL-STEEL W BEAM-S FACE A		100.000	LF		
0100	02360 	GUARDRAIL TERMINAL SECTION NO 1	 	2.000	EACH	 	
0110	02367	GUARDRAIL END TREATMENT TYPE 1		2.000	EACH		
0120	 02562 	SIGNS	 	150.000	SQFT		
0130	 02585 	EDGE KEY	 	36.000	LF		
0140	 02650 	MAINTAIN & CONTROL TRAFFIC	 (1.00)	LS		
0150	 02671 	PORTABLE CHANGEABLE MESSAGE SIGN	 	2.000	EACH		
0160	02726 	STAKING	(1.00)	LS		
0170	02731 	REMOVE STRUCTURE	(1.00)	LS		
0180	 06514 	PAVE STRIPING-PERM PAINT-4 IN	 	450.000	LF		
0190	 08801 	GUARDRAIL-STEEL W BEAM-S FACE BR	 	30.000	LF		
0200	 20694EN 	ALUMINUM STRUCTURAL PLATE BOX CULVERT 14'5" X 3'3"	 	23.000	LF	 	

KENTUCKY TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS FRANKFORT, KY 40622

CONTRACT ID: 122417 PAG COUNTY: BOYLE LETTIN PROPOSAL: CB01 011 1822 003-004 CALL N						
LINE NO	 ITEM 	DESCRIPTION		APPROXIMATE UNIT QUANTITY	UNIT PRICE	AMOUNT
0210	21415ND 	EROSION CONTROL		(1.00) LS		
	SECTION 0002	DEMOBILIZATION				
0220	02569 	DEMOBILIZATION	(AT LEAST 1.5%)	LUMP		
		TOTAL BID				