COMMONWEALTH OF KENTUCKY

Matthew G. Bevin
Governor

March 10, 2016

CALL NO. 116
CONTRACT ID NO. 161222
ADDENDUM # 1

Subject: Grayson County, NHPP 0021 (043)
Letting March 25, 2016

(1)Added - Notes – Pages 1-45 of 45
(2)Deleted – Pages 17-62 of 126
(3)Revised – Bid Items – Pages 125-126 of 126

Proposal revisions are available at http://transportation.ky.gov/Construction-Procurement/.

If you have any questions, please contact us at 502-564-3500.

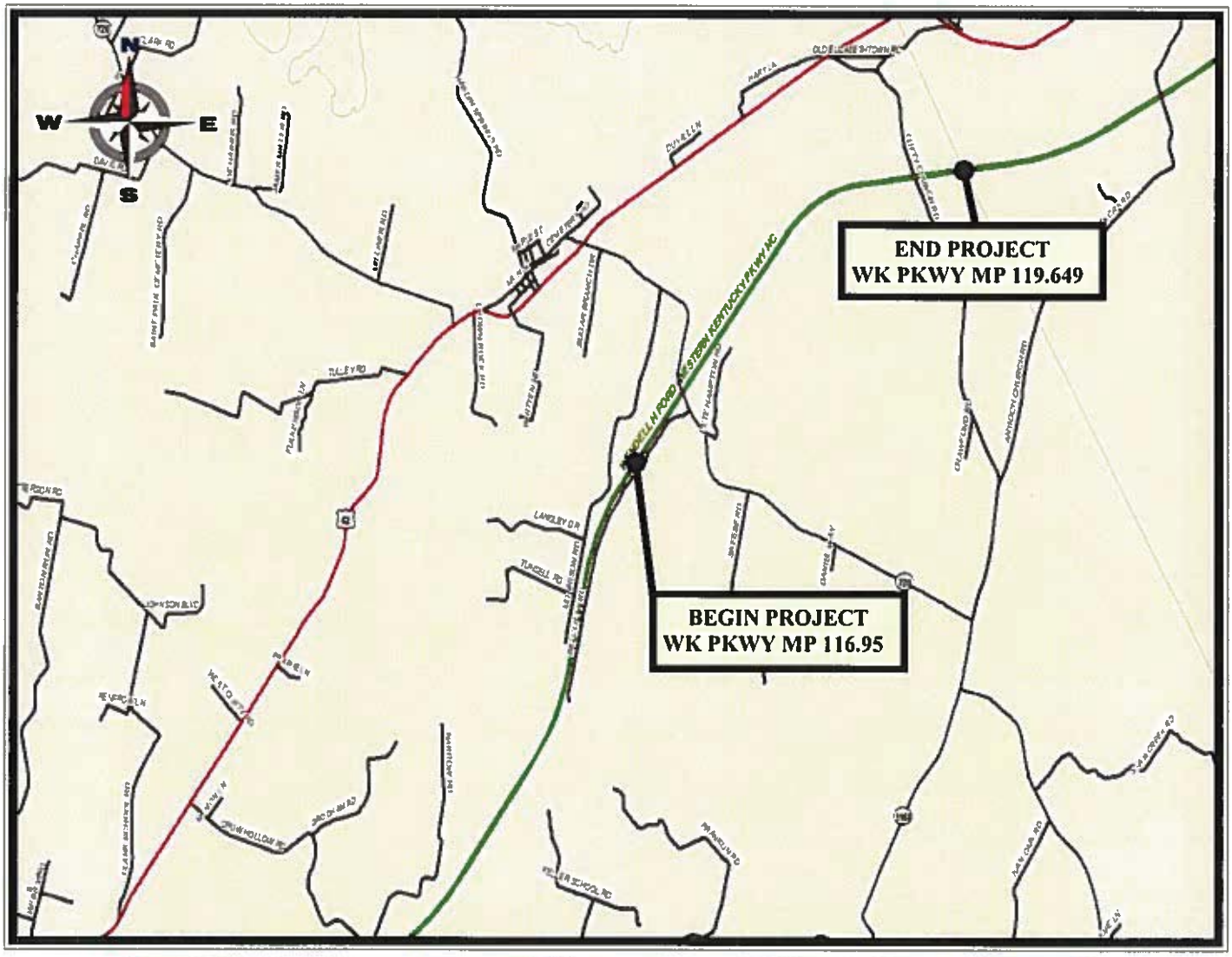
Sincerely,

Rachel Mills, P.E.
Director
Division of Construction Procurement

RM:ks
Enclosures

Kentucky UNBRIDLED SPIRIT

Grayson County
WK9001: MP 116.95 to 119.649
Item No. 4-2057



KENTUCKY
DEPARTMENT OF HIGHWAYS
COUNTY OF GRAYSON

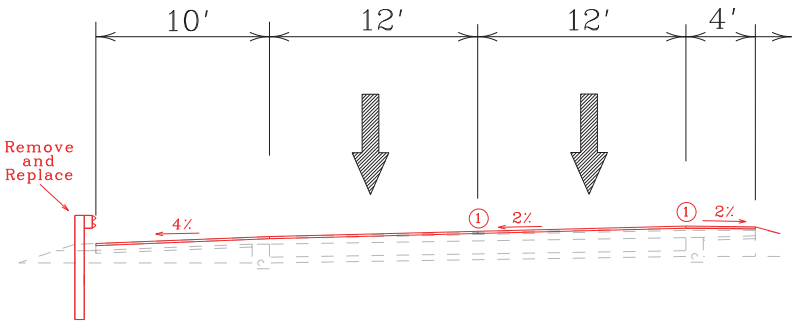
ITEM NO. 4-2057
PROJECT #: NHPP 0021 (043)
LETTING DATE 2/19/2016

RECOMMENDED BY: _____ **DATE:** 1-5-16
PROJECT MANAGER

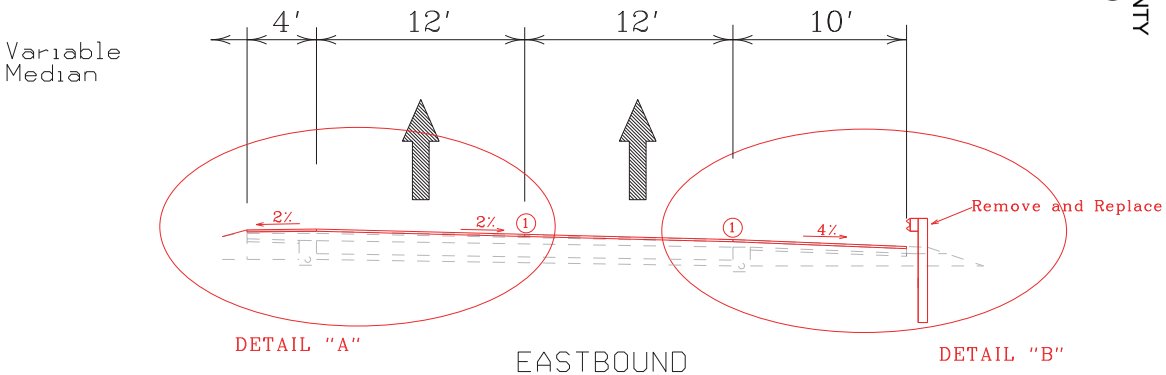
PLAN APPROVED BY: Paul C. Toney **DATE:** 1/5/16
STATE HIGHWAY ENGINEER

FHWA APPROVED BY: _____ **DATE:** _____

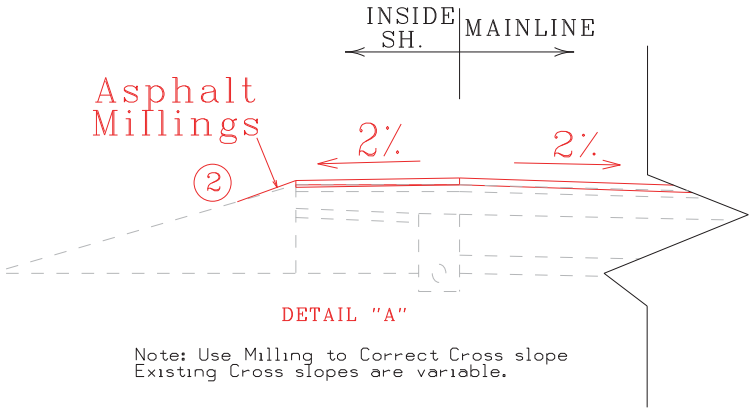
WESTERN KENTUCKY PARKWAY (MP 116.95-119.649)
TYPICAL SECTIONS



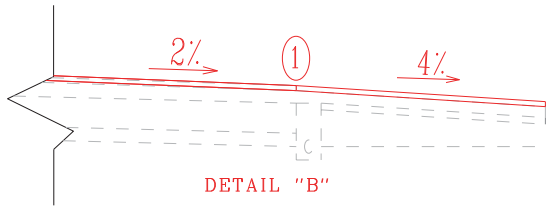
WESTBOUND
NORMAL SECTION



EASTBOUND
NORMAL SECTION



Note: Use Milling to Correct Cross slope
Existing Cross slopes are variable.



Note: Use Milling to Correct Cross slope
Existing Cross slopes are variable.

NOTES:
Sawed Rumble Strips required on inside and outside shoulders.

Refer to Std. Drawing TPM 105-02 arrangement "C" for mainline pavement markings and markers.

② Use Asphalt Millings from the project to to tie into existing slope and fill in shoulder drop-off areas as directed by the Engineer. Place Asphalt Seal Coat (2.40 lbs/sq yd Item 103) and Asphalt Seal Aggregate (20 lbs/sq yd Item 100) in these areas as directed by the Engineer. The Contractor may, at no cost to the Department, substitute DGA in lieu of Asphalt Millings to fill in the shoulder drop-off areas.

PAVEMENT REHABILITATION

DRIVING LANES and INSIDE SHOULDERS

SURFACE -- 1.5" CL3 ASPHALT SURFACE Ø.38A PG64-22
Ø" - 1.5" ASPHALT MILLING AND TEXTURE
(Variable depth Milling to correct cross slope)

OUTSIDE SHOULDERS

SHOULDERS -- 1.5" CL2 ASPHALT SURFACE Ø.38D PG64-22
1.5" ASPHALT MILLING AND TEXTURE

① Place Joint Adhesive between driving lanes and between mainline and outside shoulder.

NOT TO SCALE

WK9001 - MP 116.95 - MP 119.649
GRAYSON COUNTY
ITEM NUMBER: 4-2057
GENERAL SUMMARY

ITEM NUMBER	ITEM	QUANTITY	UNIT
	GRAYSON COUNTY		
00190	LEVELING AND WEDGING PG64-22 (1)	1,000	TON
00103	ASPHALT SEAL COAT (1)	64	TON
00100	ASPHALT SEAL AGGREGATE (1)	508	TON
2562	SIGNS	2,000	SQ FT
2569	DEMOBILIZATION	1	LS
2650	MAINTAIN AND CONTROL TRAFFIC	1	LS
2676	MOBILIZATION FOR MILLING &TEXTURING	1	LS
2677	ASPHALT PAVE MILLING & TEXTURING (1)	9,928	TON
2671	PORTABLE CHANGEABLE MESSAGE SIGN	2	EACH
24489EC	INLAID PAVEMENT MARKERS (2)	356	EACH
10020NS	FUEL ADJUSTMENT	15,453	DOLLAR
10030NS	ASPHALT ADJUSTMENT	38,815	DOLLAR
20071EC	JOINT ADHESIVE	57,003	LIN FT
24189ER	DURABLE WATERBORNE MARKING -6 IN W (3)	35,627	LIN FT
24190ER	DURABLE WATERBORNE MARKING -6 IN Y (3)	28,501	LIN FT
23143ED	KPDES PERMIT AND TEMP EROSION CONTROL	1	LS
2696	SHOULDER RUMBLE STRIPS-SAWED	57,003	LIN FT
301	CL2 ASPHALT SURFACE 0.38D PG64-22	2,613	TON
22906ES403	CL3 ASPHALT SURFACE 0.38A PG64-22	7,315	TON
21802EN	G/R STEEL W BEAM-S FACE (7 FT POST)	6,488	LF
2381	REMOVE GUARDRAIL	7,076	LF
2367	GUARDRAIL END TREATMENT TYPE 1	7	LF
2369	GUARDRAIL END TREATMENT TYPE 2A	7	EACH
2391	GUARDRAIL END TREATMENT TYPE 4A	1	EACH
2382	GUARDRAIL CONNECT-SHLD BRIDGE PIER TY A	2	EACH
2384	GUARDRAIL CONNECT SHLD BRIDGE PIER TY A1	1	EACH
2929	CRASH CUSHION TYPE IX	4	EACH
1982	DELINEATOR FOR GUARDRAIL-WHITE	79	EACH
1983	DELINEATOR FOR GUARDRAIL-YELLOW	8	EACH
2483	CHANNEL LINING CLASS II	4,140	TON
6401	FLEXIBLE DELINEATOR POST-M/W	110	EACH
6404	FLEXIBLE DELINEATOR POST-M/Y	2	EACH
2165	REMOVE PAVED DITCH	989	SQYD
2484	CHANNEL LINING CLASS III	494	TON
468	CULVERT PIPE-36 IN	8	LF
1212	PIPE CULVERT HEADWALL - 36 IN	1	EACH
78	CRUSHED AGGREGATE SIZE NO 2	1,958	TON

(1) Extra Quantity Added To be used if needed as directed by the Engineer

(2) Existing pavement marker removal shall be incidental to ASPHALT PAVE MILLING & TEXTURING

(3) Temporary tape or paint used for closures, etc. shall be incidental to MAINTAIN AND CONTROL TRAFFIC

Note: Quantities from all summaries have been carried over and included in this General Summary.

WK 9001
Item No. 4-2057
Grayson County

PAVING SUMMARY

CODE	ITEM	NOTES	UNITS	PROJECT
00190	LEVELING AND WEDGING PG64-22 (1)	To be used if needed as directed by the Engineer	TON	1,000
00103	ASPHALT SEAL COAT (1)	To be used if needed as directed by the Engineer	TON	64
00100	ASPHALT SEAL AGGREGATE (1)	To be used if needed as directed by the Engineer	TON	508
22906ES403	CL3 ASPHALT SURFACE 0.38A PG64-22	Mainline	TON	7,315
301	CL2 ASPHALT SURFACE 0.38D PG64-22	Mainline	TON	2,613
2677	ASPHALT PAVE MILLING & TEXTURING (1)	Mainline	TON	9,928
2696	SHOULDER RUMBLE STRIPS-SAWED	Mainline	LIN FT	57,003
20071EC	JOINT ADHESIVE	Mainline	LIN FT	57,003

(1) Extra Quantity Set Up To be used if needed as directed by the Engineer

GRAYSON COUNTY GUARDRAIL SUMMARY WK 9001

Guardrail Milepoint to Milepoint			Steel "W" Beam Guardrail	Remove Exist. G.R.	Guardrail End Treatment			Sh to Bridge Pier Conn. TY A	Sh to Bridge Pier Conn. TY A-1	CRASH CUSHION TY IX	Delin-eator for GR MD W	Delin-eator for GR MD Y	Remarks
Item			SF		1	2A	4A						
Units			L.F.		Each								
Item Code Number			21802EN	2381	2367	2369	2391	2382	2384	2929	1982	1983	
EB OUT SH	117.293	117.421	625.0	676.0	1			1			7		Ends at Concrete Barrier Under Bridge
EB OUT SH	117.425	117.483	312.5	308.0		1			1		4		Begins at Concrete Barrier Under Bridge
EB OUT SH	117.821	118.567	3,900.0	3,948.0	1	1					40		
EB OUT SH	119.269	119.335	300.0	351.0	1	1					4		
WB OUT SH	117.433	117.472	162.5	210.0	1			1			3		Ends at Concrete Barrier Under Bridge
WB OUT SH	117.840	117.944	525.0	555.0		1	1				7		
WB OUT SH	118.141	118.180	162.5	204.0	1	1					3		
WB OUT SH	118.520	118.580	262.5	315.0	1	1					8		
WB OUT SH	119.317	119.372	237.5	285.0	1	1					3		
Median	117.412	117.423		56.0						1		2	
Median	117.431	117.441		56.0						1		2	
Median	119.311	119.322		56.0						1		2	
Median	119.330	119.341		56.0						1		2	
TOTAL			**6,487.5**	**7,076.0**	**7.0**	**7.0**	**1.0**	**2.0**	**1.0**	**4.0**	**79.0**	**8.0**	

Note: Milepoints are approximate based on the Eastbound Milepoints, Remove and Replace existing guardrail and end treatments.

Grayson County
WK 9001: MP 116.950 - 119.649
NHPP 0021 (043)

DITCH REPAIR SUMMARY					
		REMOVE PAVED DITCH	CHANNEL LINING CL II	CHANNEL LINING CL III	NOTES
	UNIT	SQ YD	TON	TON	
	ITEM	2165	2483	2484	
MP - MP	DIRECTION				
116.98	EB		48		
117.26 - 117.32	EB		188		
117.32 - 117.34	EB	38	60		
117.45 - 117.50	EB	61	225		
117.56 - 117.57	EB		15		
117.57	EB		47		Extend to ROW fence
117.57 - 117.71	EB		222		
117.80 - 117.86	EB	172	413		
117.89 - 117.90	EB		44		
117.95 - 117.96	EB			118	
118.55 - 118.61	EB		188		Extend out from rock bottom ditch
119.13	EB		44		
119.28	EB		59		Extend from headwall to ROW
119.28 - 119.54	EB	607	1186		
119.58	EB		9		Place at toe of S&F Headwall
116.97 - 117.02	WB	32	148		Cut a new ditchline over to swag
117.31 - 117.33	WB	37	59		
117.33	WB	23	31		Extend from headwall to ROW
117.33 - 117.34	WB	18	36		
117.41 - 117.50	WB		432		
117.92 - 118.03	WB		329		Extend to the DGA/Guardrail taper area
118.03	WB		27		Place channel lining up slope
118.11 - 118.12	WB			80	
118.12 - 118.14	WB		94		
118.49 - 118.55	WB		237		
118.69	WB		31		
118.84	WB		31		Extend from headwall to ROW
118.92 - 118.93	WB		30		
118.93	WB		9		Place channel lining up slope
118.94	WB		9		Place channel lining up slope
118.93 - 118.95	WB		59		
119.16 - 119.27	WB		347		
119.32	WB		9		Extend from headwall to ditchline
119.30 - 119.35	WB	167	266		
119.49 - 119.51	WB		80		
TOTAL		**989**	**4140**	**198**	

Grayson County
WK 9001: MP 116.950 - 119.649
NHPP 0021 (043)

PIPE HEADWALL & OUTLET REPAIR @ MP 117.45 EB			
DRAINAGE SUMMARY			
	CULVERT PIPE - 36 IN (1)	PIPE CULVERT HEADWALL-36 IN (1)	CHANNEL LINING CLASS III (2)
UNIT	LIN FT	EACH	TON
ITEM	468	1212	2484
	8	**1**	**296**

(1) Install as RCP@ 45° Skew RT

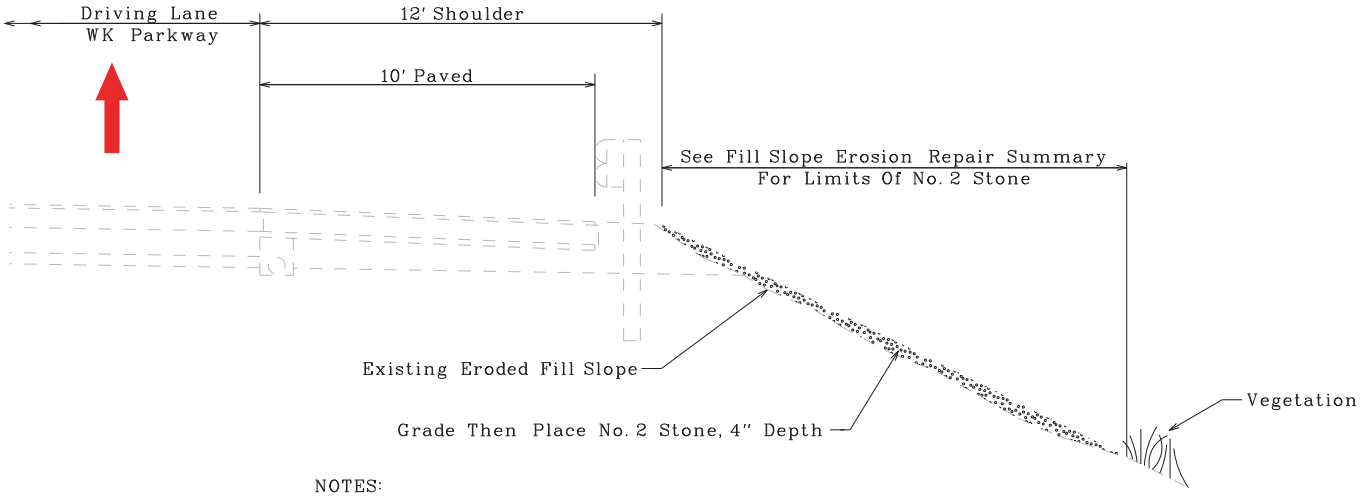
(2) Line outlet ditch

Grayson County
WK 9001: MP 116.950 - 119.649
NHPP 0021 (043)

FILL SLOPE EROSION REPAIR SUMMARY				
			CRUSHED AGGREGATE SIZE NO. 2	NOTES
		UNIT	TON	
		ITEM	78	
MP - MP	DIRECTION	EST. WIDTH		
117.38 -117.43	WB	5	29	
117.79 - 117.85	WB	20	141	
118.09 - 118.13	WB	20	117	
119.34	WB	14	30	Around S&F Headwall
117.29 - 117.34	EB	5	32	
117.34 - 117.37	EB	19	67	
117.37 - 117.44	EB	5	41	
117.44 - 117.49	EB	22	116	
117.84 - 117.92	EB	20	176	
117.97 - 118.37	EB	18	845	
118.41 - 118.55	EB	17	279	
119.26 - 119.32	EB	12	85	
TOTAL			**1958**	

FILL SLOPE EROSION REPAIR AND DITCH REPAIR DETAILS

FILL SLOPE EROSION REPAIR



NOTES:
See The Fill Slope Erosion Repair Summary For Locations And Quantity Of No. 2 Stone.

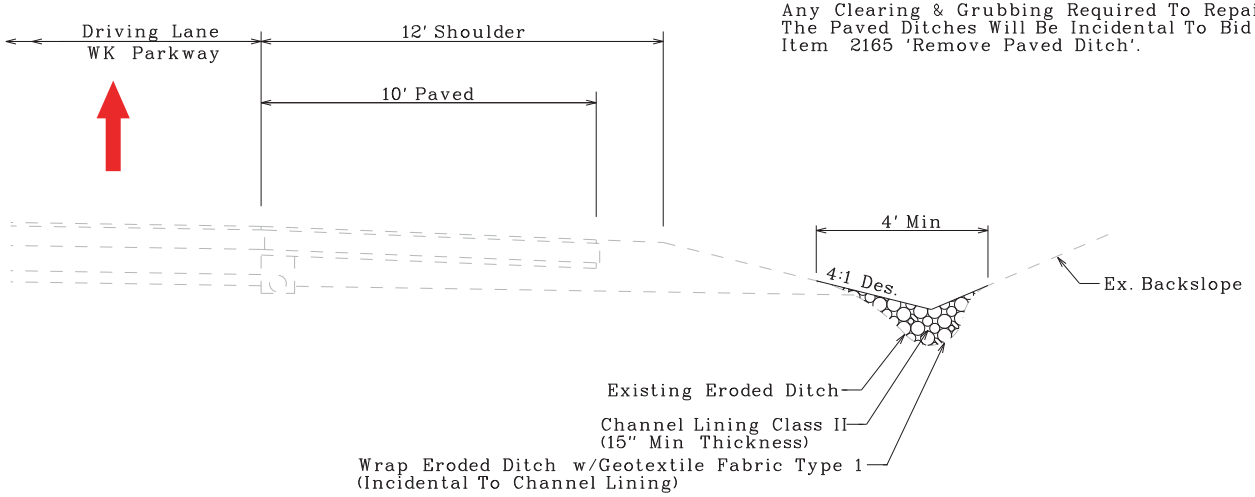
Grading The Slope Prior To Placement Of No. 2 Stone WIll Be Incidental To The Stone Bid Item.

DITCH REPAIR

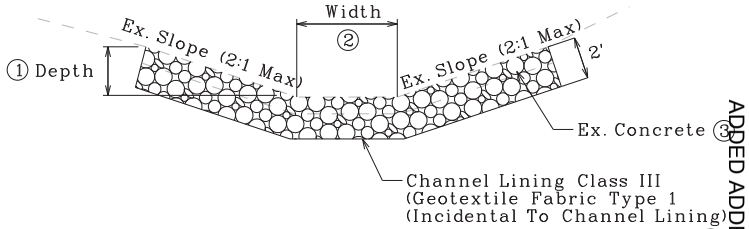
NOTES:
See The Ditch Repair Summary For Locations And Quantities Of Ditch Work.

Any Clearing & Grubbing Required To Repair The Paved Ditches Will Be Incidental To Bid Item 2165 'Remove Paved Ditch'.

ROADWAY DITCHES



EX. BROKEN PAVED DITCHES



① Match Existing Or 1.5' Min, Whichever Is Greater.

② At the discretion of the Engineer

③ Existing Concrete May Be Broken Into Pieces The Size Of Class III Channel Lining And Reshaped To That Of The New Ditch.

NOT TO SCALE

WK9001 GRAYSON COUNTY
MP 116.95 TO MP 119.649
NHPP 0021 (043)
ITEM NO. 4-2057

THIS PROJECT IS A FULLY CONTROLLED ACCESS HIGHWAY

I. DESCRIPTION

Perform all work in accordance with the Department's 2012 Standard Specifications, Supplemental Specifications, any applicable Special Provisions, and applicable Standard and Sepia Drawings, except as hereafter specified. Article references are to the Standard Specifications. Furnish all materials, labor, equipment, and incidentals for the following work:

(1) Maintain and Control Traffic; (2) Inlaid pavement markers; (3) Asphalt Pavement Milling and Texturing; (4) Asphalt Surface at locations listed and/or directed by the Engineer; (5) Remove and Replace Guardrail and Guardrail End Treatments at the locations listed and/or directed by the Engineer; (6) Repair eroded side slopes and ditches; and (7) All other work specified as part of this contract.

II. MATERIALS

Except as specified in these notes or on the drawings, all materials will be according to the Standard Specifications and applicable Special Provisions and Special Notes. The Department will sample and test all materials according to the Department's Sampling Manual and the Contractor will have the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing, unless otherwise specified in these notes.

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

B. Pavement Markings -6 inch Paint. Use Durable Waterborne Marking 6- inch for permanent striping (12 inch at entrance and exit ramp tapers).

III. CONSTRUCTION METHODS

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

B. Site Preparation. Be responsible for all site preparation. Do not disturb existing signs. This item will include, but is not limited to, incidental excavation and backfilling; removal of all obstructions or any other items; disposal of

materials; sweeping and removal of debris; shoulder preparation and restoration, temporary and permanent erosion and pollution control; and all incidentals. Site preparation will be only as approved or directed by the Engineer. Other than the bid items listed, no direct payment will be made for site preparation, but will be incidental to the other items of work.

C. Disposal of Waste. Dispose of all cuttings, debris, and other waste off the right-of-way at approved sites obtained by the Contractor at no additional cost to the Department. The contractor will be responsible for obtaining any necessary permits for this work. Temporary openings in the right of way fence for direct access to waste sites off the right of way or for access to other public roads will not be allowed. No separate payment will be made for the disposal of waste and debris from the project or obtaining the necessary permits, but will be incidental to the other items of the work.

D. Final Dressing, Clean Up, and Seeding and Protection. After all work is completed, completely remove all debris from the job site. Perform Class A Final Dressing on all disturbed areas. Sow disturbed earthen areas with Seed Mixture No. I. These items are incidental to the other items of the work.

E. Pavement Striping and Pavement Markers. Permanent striping will be in accordance with Section 112, except that:

(1) Striping will be 6” in width;
(2) Permanent Striping will be in place before job is complete;
(3) Permanent striping will be 6” Durable Waterborne Marking &
(4) Existing pavement marker removal shall be incidental to ASPHALT PAVE MILLING & TEXTURING.

F. On-Site Inspection. Each Contractor submitting a bid for this work will make a thorough inspection of the site prior to submitting a bid and will thoroughly familiarize himself with existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department.

G. Property Damage. The Contractor shall be responsible for all damage to public and/or private property resulting from the Contractor’s work. Restore all disturbed features in like kind materials and design to the existing or proposed grades, as applicable, at no additional cost to the Department.

H. Caution. Information shown on the drawings and in this proposal and the types and quantities of work listed are not to be taken as an accurate or complete evaluation of the material and conditions to be encountered during construction. The bidder must draw his own conclusions as to the conditions

encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the conditions encountered are not in accordance with the information shown.

I. Utility Clearance. It is not anticipated that 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.

J. Guardrail. Remove, replace and extend guardrail and guardrail End Treatments listed in the Guardrail Summary or as directed by the Engineer. Quantities are approximate only. Actual locations will be determined by the Engineer at the time of construction. Grade and reshape shoulders to proper template for new End Treatment. Remove any existing guardrail with a lane closure in place. Do not leave the area unprotected. After the guardrail is removed, a shoulder closure shall remain in place until the guardrail is replaced in that area. A maximum of seven calendar days will be allowed between the removal of a guardrail section and the installation of new guardrail at that same location unless otherwise approved by the Engineer.

IV. METHOD OF MEASUREMENT

Except as specified in these notes, or elsewhere in the drawings or this proposal, the method of measurement will be in accordance with the Standard Specifications.

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

B. Site Preparation. Other than the bid items listed, site preparation will not be measured for payment but will be incidental to the other items of work.

C. Inlaid Pavement Markers and Permanent Striping. Permanent striping Durable Waterborne Marking (6” and 12”) is measured per linear foot. See Traffic Control Plan. Inlaid Pavement Markers are measured as each.

D. Erosion Control. Erosion control items not listed as bid items will not be measured for payment, but will be considered incidental to the “lump sum” price for the bid item “KPDES Permit & Temporary Erosion Control”.

V. BASIS OF PAYMENT

Except as specified in these notes, or elsewhere in the drawings or this proposal, basis of payment will be in accordance with the Standard Specifications. No direct payment will be made other than for the bid items listed. All other items required to complete the construction will be incidental to the bid items listed. Existing signs damaged by the Contractor will be replaced by the Contractor at his expense.

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

B. Site Preparation. Other than the bid items listed, site preparation will not be measured for payment but will be incidental to the other items of work.

C. Inlaid Pavement Markers and Permanent Striping. See Traffic Control Plan.

NOTES APPLICABLE TO PROJECT
PAVEMENT REHABILITATION
GRAYSON COUNTY
ITEM NO. 4-2057

THIS PROJECT IS A FULLY CONTROLLED ACCESS HIGHWAY

1. The dimensions and cross slopes shown on the typical section for pavement and shoulder widths and thickness are nominal or typical dimensions. The actual dimensions to be constructed may be varied to fit existing conditions as directed or approved by the Engineer. It is not intended that existing pavement or shoulders be widened or the cross slopes changed unless specified in the Proposal or directed by the Engineer.

2. Contractor shall mill WK9001 mainline and shoulder pavements as shown on the Typical Sections. Payment for milling shall be per ton and paid as “ASPH PAVE MILLING & TEXTURING”. 1.5” Asphalt Surface shall be placed throughout the project on the mainline and shoulders as shown in the Typical Sections.

3. Any delineator posts, light poles or roadway signs that are damaged by the Contractor during construction are to be replaced at the contractor’s expense. Signs that appear to have no visible damage but that are leaning are to be reset as directed by the Engineer. Payment for this work will be considered incidental to the contract.

4. Asphalt Pavement Ride Quality requirements, in accordance with section 410 Category “A” of the Standard Specifications, shall apply on this project.

5. Portable Changeable Message Boards furnished by the contractor shall become possession of the Department in new condition upon completion of the project.

6. INLAID PPAVEMENT MARKERS (IPMs) will be used in lieu of Type 5 Pavement Markers on this job. Place two (2) IPMs per groove where Type 5 Pavement Markers would be located according to the Standard Drawings.

7. There is a quantity of “LEVEL & WEDGING PG 64-22” set up to correct irregularities. The quantity for irregularities may or may not be necessary and will be placed at the discretion of the Engineer.

8. There is additional quantity of “ASPHALT SEAL COAT”, “ASPH PAVE MILLING & TEXTURING”, etc. set up to be placed if needed as directed by the Engineer.

9. The speed limit on this project will be reduced to 55 mph while lane closures are in place. Any time work is suspended the speed limit will revert back to 70 mph. Also, double fine signs are set up in the project to be installed while workers are present in the work zone.

10. Asphalt Millings from the project that are not used to fix shoulder drop-offs shall become the property of the Contractor. The transfer to the Contractor shall all be incidental to “ASPH PAVE MILLING & TEXTURING”.

11. The specified completion date for this project is September 1, 2016. Contrary to section 108, liquidated damages will be charged during the months of December 2016 through March 2017.

TRAFFIC CONTROL PLAN
GRAYSON COUNTY
WK9001
NHPP 0021 (043)
Item Nos. 4-2057

THIS PROJECT IS A FULLY CONTROLLED ACCESS HIGHWAY

TRAFFIC CONTROL GENERAL

Except as provided herein, "Maintain and Control Traffic" shall be in accordance with the 2012 Standard Specifications and the Standard Drawings, current editions. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic". All lane closures used on the Project will be in compliance with the appropriate Standard Drawings. Do NOT use cones for lane closures or shoulder closures.

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. Traffic control devices will conform to current MUTCD.

Reduce the speed limit in work areas to 55 miles per hour (35 miles per hour for ramps) and establish double fines for work zone speeding violations. The extent of these areas within the project limits will be restricted to the proximity of actual work areas as determined by the Engineer. Notify the Engineer a minimum of 12 hours prior to using the double fine signs. At the beginning of the work zone, the "WARNING FINE DOUBLED IN WORK ZONE" signs will be dual mounted. At the end of the work zone, the "END DOUBLE FINE" signs will be dual mounted as well. Remove or cover the signs when the highway work zone does not have workers present for more than a two-hour period of time. Payment for the signs will be at the unit bid price for signs erected. Any relocation or covering of the signs will be incidental to "Maintain and Control Traffic," lump sum.

Night work will be allowed on this project. Obtain approval from the Engineer for the method of lighting prior to its use.

PROJECT PHASING & CONSTRUCTION PROCEDURES

<u>No lane closures are allowed on the following dates or times:</u>

September 4-7, 2015
November 26-29, 2015
December 24-25, 2015
December 31, 2015 – January 1, 2016
May 27-30, 2016
July 1-4, 2016

The Engineer may specify additional days and hours when lane closures are not allowed. Traffic may be reduced to one lane in each direction at all other times.

All closures must be approved by the Engineer at least 14 days prior to the closure.

Note that lane closures are required for the project. Stripe and taper according to the MUTCD and Standard Drawings.

During the days and hours when a lane closure is allowed, implement the following procedures: Maintain traffic as specified in the phasing notes and typical sections.

The contractor must notify the Engineer at least fourteen (14) days prior to the beginning of each construction phase in either direction.

During the days when a lane closure is allowed, maintain traffic as specified in the phasing notes and typical sections. Please refer to the "Special Note for Fixed Completion Date and Liquidated Damages" for damage rates per hour associated with failure to maintain the required number of lanes during a specific time period.

LANE CLOSURES

Limit the lengths of lane closures to only that needed for actual operations in accordance with the phasing specified herein, or as directed by the Engineer with a minimum of one mile between successive lane closures. Contrary to section 112, lane closures will **NOT** be measured for payment, but are considered incidental to "Maintain and Control Traffic," lump sum.

SIGNS

Additional traffic control signs in addition to normal lane closure signing detailed on the Standard Drawings may be required by the Engineer. Additional signs needed for lane closures may include, but are not limited to, dual mounted TRUCKS USE LEFT/RIGHT LANE, LEFT/RIGHT LANE CLOSED 1 MILE, LEFT/RIGHT LANE CLOSED 2 MILE, LEFT/RIGHT LANE CLOSED 3 MILE, SLOWED/STOPPED TRAFFIC AHEAD. Signage for reduced speed limits and double fine work zones will be furnished, relocated, and maintained by the Contractor.

Contrary to section 112, Individual 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 signs or signs directed to be replaced by the Engineer due to poor legibility or reflectivity will not be measured for payment.

A quantity of signs has been included for lane shifts, "Roadwork Ahead" signs on entrance ramps, and extra double fine signs and speed limit signs between interchanges to be paid only once no matter how many times they are moved or relocated.

FLASHING ARROWS

Flashing arrows will not be measured for payment, but are incidental to "Maintain and Control Traffic," lump sum. The Department **WILL NOT** take possession of the flashing arrows upon completion of the work.

PORTABLE CHANGEABLE MESSAGE SIGNS

Provide portable changeable message signs (PCMS) 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 PCMS. Place PCMS one mile in advance of the anticipated queue at each lane closure. As the actual queue lengthens and/or shortens relocate or provide additional PCMS 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 will be designated by the Engineer. The PCMS will be in operation at all times. In the event of damage or mechanical/electrical failure, the contractor will repair or replace the PCMS immediately. PCMS will be paid for once, no matter how many times they are moved or relocated. The Department **WILL** take possession of the signs upon completion of the work.

TRUCK MOUNTED ATTENUATORS

Furnish and install MUTCD approved truck mounted attenuators (TMA) in advance of work areas when workers are present less than 12 feet from traffic. If there is less than 500 feet between work sites, only a single TMA will be required at a location directed by the Engineer. Locate the TMAs at the individual work sites and move them as the work zone moves within the project limits. All details of the TMA installations shall be approved by the Engineer. TMA will not be measured for payment, but are incidental to "Maintain and Control Traffic," lump sum. The Department **WILL NOT** take possession of the TMAs upon completion of the work.

PAVEMENT MARKINGS

If lane closures are in place during nighttime hours, remove or cover the lenses of pavement markers that do not conform to the traffic control scheme in use, or as directed by the Engineer. Replace or uncover lenses before a closed lane is reopened to traffic. No direct payment will be made for removing and replacing or covering and uncovering the lenses, but will be incidental to "Maintain and Control Traffic," lump sum.

Place temporary and permanent striping in accordance with Section 112, except that:

1. Temporary and permanent striping will be 6" in width
2. If the contractor's operations or phasing requires temporary markings which must be subsequently removed from the ultimate pavement, an approved removable lane

tape will be used.
3. Edge lines will be required for temporary striping
4. Existing, temporary, or permanent striping will be in place before a lane is opened to traffic
5. Place permanent striping on bridge decks and pavement within the project limits.
6. Permanent striping will be Durable Waterborne Markings
7. All Temporary striping will be incidental to "Maintain and Control Traffic"

Should the Contractor change the existing striping pattern, the Contractor is to restripe the roadway back to its original configuration after a certain period of time especially if no work is anticipated for a period of time (i.e. Winter shutdown).

PAVEMENT EDGE DROP-OFFS

Pavement edge drop-offs will be protected by a lane or shoulder closure. Lane closures will be protected with plastic drums, vertical panels, or barricades as shown on the Standard Drawings.

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

2" and less – Protect with a lane closure.

2" to 4" – Protect with a lane closure. Place plastic drums, vertical panels, or barricades every 50 feet. Cones may not be used in place of plastic drums, panels, and barricades at any time. Construct a wedge with compacted cuttings from milling, trenching, or asphalt mixtures with a 3:1 or flatter slope, when work is not active in the drop-off area. Place Type III Barricades at the beginning of the lane closures, and place additional Type III Barricades spaced at 2,500 feet during the time the lane closure is in place. Type III Barricades will not be measured for payment and will be considered incidental to "Maintain and Control Traffic."

Greater than 4" – Pavement Repair areas – In areas where pavement is to be removed, work should proceed continuously so that traffic is exposed to a drop-off for the minimum amount of time necessary to bring the pavement back up to existing grade. Barrel spacing should be 20 feet and appropriate lighting should be utilized to illuminate the area during nighttime operations.

TRAFFIC COORDINATOR

Designate an employee to be traffic coordinator. The designated Traffic Coordinator must be certified by the American Traffic Safety Services Association (ATSSA). The Traffic Coordinator will inspect the project maintenance of traffic once daily, including weekends, during the Contractor's operations and at any time a lane closure is in place. The Traffic Coordinator will report all incidents throughout the work zone to the Engineer on the project. The Contractor will furnish the name and telephone number where the Traffic Coordinator can be contacted at all times.

During any period when a lane closure is in place, the Traffic Coordinator will arrange for personnel to be present on the project at all times to inspect the traffic control, maintain the signing and devices, and relocate portable changeable message boards as queue lengths change. The personnel will have access on the project to a radio or telephone to be used in case of emergencies or accidents.

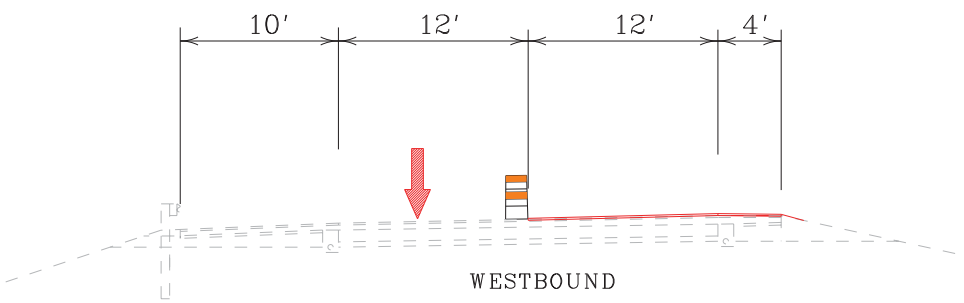
COORDINATION OF WORK

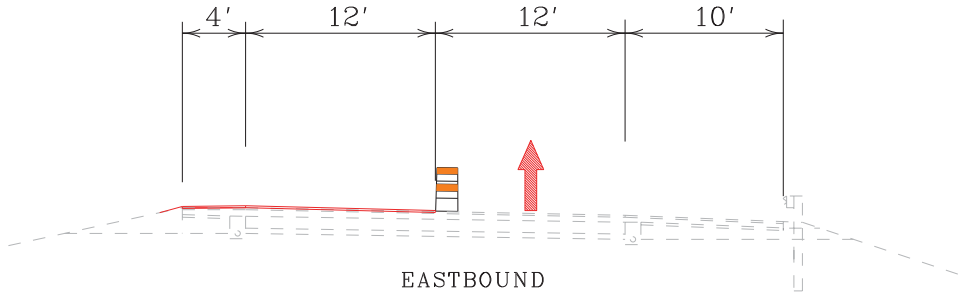
The Contractor is advised that other projects may be in progress within or in the near vicinity of this project. The traffic control of those projects may affect this project and the traffic control of this project may affect those projects. The Contractor will coordinate the work on this project with the work of the other contractors. In case of conflict, the Engineer will determine the relative priority to give to work phasing on the various projects.

CONTRACTOR'S AND CONTRACTOR'S EMPLOYEES' VEHICLES

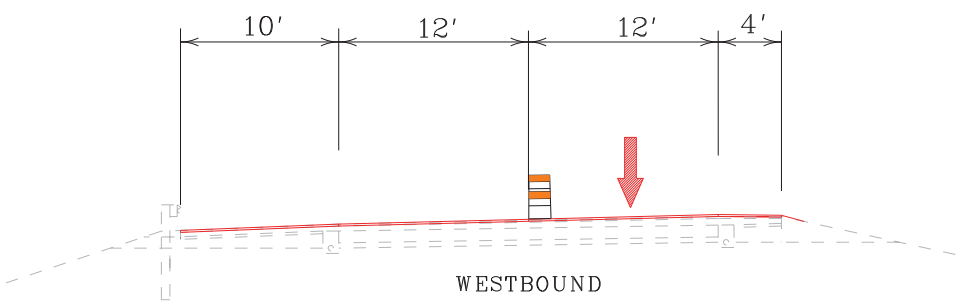
Do not use or allow employees to use median crossovers at any time except when inside lanes are closed for construction. In all other phases of construction, change vehicular direction of travel only at interchanges.

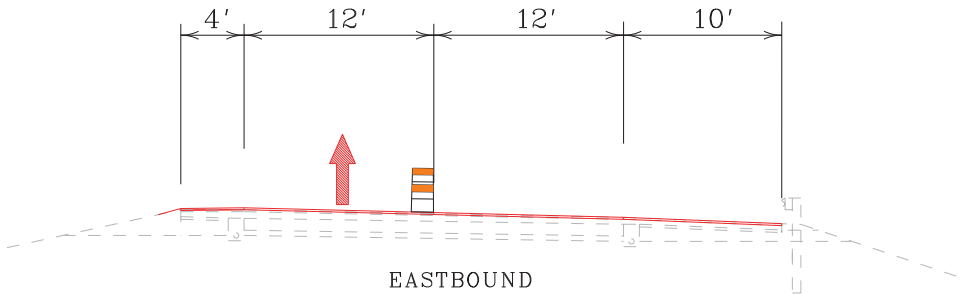
WESTERN KENTUCKY PARKWAY
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS





The inside lane and shoulder will be closed in both directions. Mill and Pave the asphalt surface in the inside lane and shoulder as shown in the typical sections. Place striping and inlaid pavement markers in accordance with MUTCD and KYTC Standard Drawings. Saw inside shoulder rumble strips. Place Asphalt Millings from project and Seal Coat as directed by the Engineer on the outside edge of paved inside shoulder.





The outside lane and shoulder will be closed in the both directions. Mill and Pave the asphalt surface in the outside lane and shoulder as shown in the typical sections. Place striping and inlaid pavement markers in accordance with MUTCD and KYTC Standard Drawings. Saw outside shoulder rumble strips.

NOT TO SCALE

WESTERN KENTUCKY PARKWAY
MOT TYPICAL SECTIONS

REFERENCES

1. Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Edition of 2012.

2. FHWA Manual on Uniform Traffic Control Devices (MUTCD), latest edition.

3*. Active Sepia List

Drawing No.	Drawing Name
001	Delineators at Narrow Shoulder Bridges
002	Delineators For Guardrail
007	Guardrail End Treatment Type 2A
008	Guardrail Components
011	Shoulder Rumble Strips
012	Steel Beam Guardrail (“W” Beam)
013	Guardrail Posts
014	Guardrail Connector to Bridge End Type A and A-1 Components
015	Guardrail Connector to Concrete Median Barrier End
018	Flexible Delineator Post Arrangements for Horizontal Curves
019	Flexible Delineator Post Arrangements for Interchange Ramps and Crossovers

4*. Kentucky Department of Highways Standard Drawings, current editions, as applicable:

RGS-002-05 Superelevation for Multilane Pavement
RGX-001-05 Miscellaneous Standards Part I
RGX-060 Breakaway Sign Support System For Type C Beam
RGX-061 Footing Details For Type C Beam
RGX-065 Type D Breakaway Sign Support
RGX-200 One Point Proctor Family of Curves
TPM-105-02 Pavement Marker Arrangements Multi-Lane Roadways (Use inlaid in lieu of Type 5 pavement markers)
TPM-125 Pavement Marker Arrangement Exit Gore and Off-Ramp (Use inlaid in lieu of Type 5 pavement markers)
TPM-130 Pavement Marker Arrangement On-Ramp with Tapered Acceleration Lane (Use inlaid in lieu of Type 5 pavement markers)
TPM-135 Pavement Marker Arrangement On-Ramp with Parallel Acceleration Lane (Use inlaid in lieu of Type 5 pavement markers)
TTC-115 Lane Closure Multi-Lane Highway Case I
TTD-110 Post Splicing Detail
TTD-120 Work Zone Speed Limit and Double Fine Signs
TTD-125 Pavement Condition Warning Signs
TTS-120 Mobile Operation for Durable Striping Case I
RBB-001-07 Guardrail and Bridge End Drainage For Single Structures
RBB-002-08 Guardrail and Bridge End Drainage For Twin Structures
RBB-003-02 Layout of Guardrail At Twin Structures (Depressed Median)
RBB-010-04 Guardrail Transition From Normal Shoulder To Narrow Bridge
RBC-001-10 Guardrail Connector to Bridge End Type A and A-1

RBC-002-02 Guardrail Connector to Bridge End Type A Components

RBI-001-10 Typical Guardrail Installations
RBI-002-06 Typical Guardrail Installations
RBI-004-04 Installation of Guardrail End Treatment Type 1
RBI-005-07 Guardrail Installation at Bridge Columns
RBR-010-05 Guardrail Terminal Sections

RBR-016-04 Guardrail Posts
RBR-020-04 Guardrail End Treatment Type 1
RBR-020-05 Guardrail End Treatment Type 1

RBR-030-04 Guardrail End Treatment Type 3
RBR-031 Guardrail End Treatment Type 3 Pipe Drainage Detail
RBR-035-10 Guardrail End Treatment Type 4a
RDP-001-05 Perforated Pipe Types and Cover Heights
RDP-005-04 Perforated Pipe For Subgrade Drainage On Two-Lane (Class 2) and Multi-Lane Roads
RDP-006-03 Perforated Pipe Underdrains
RDP-007-03 Perforated Pipe Details (Solid Rock)
RDP-010-08 Perforated Pipe Headwalls
RGS-001-06 Curve Widening and Superelevation Transitions
RPM-001-03 Permanent U-Turn Median Opening
TTC-135-01 Shoulder Closure
TTC-155-01 Temporary Pavement Marker Arrangements For Construction Zones
TTC-160-01 Temporary Pavement Marker Arrangements For Lane Closures
TTS-100-01 Mobile Operation For Paint Striping Case I
TTS-105-01 Mobile Operation For Paint Striping Case II
TTS-110-01 Mobile Operation For Paint Striping Case III
TTS-115-01 Mobile Operation For Paint Striping Case IV
TTS-120-01 Mobile Operation For Durable Striping Case I
TTS-125-01 Mobile Operation For Durable Striping Case II
TTS-130-01 Mobile Operation For Durable Striping Case III
TTS-135-01 Mobile Operation For Durable Striping Case IV

5*. Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Edition of 2012 - Supplemental Specifications, as applicable:

Special Note 1I Portable Changeable Message Signs (6/15/2012)
Special Note Typical Section Dimensions
Special Note Before You Dig
Special Provision For Waste and Borrow Sites
Special Note For Longitudinal Pavement Joint Adhesive
Special Note Fixed Completion Date and Liquidated Damages
Special Note For Asphalt Milling and Texturing
Special Note For Erosion Prevention and Sediment Control

*Note: This is a partial list that may be applicable to this project

Special Note for Fixed Completion Date and Liquidated Damages Grayson County Item No. 4-2057

Contrary to Section 108.09, Liquidated Damages of $5,000 per calendar day will be assessed for each day work remains uncompleted beyond the Specified Completion Date. This project has a Fixed Completion Date of September 1, 2016.

Contrary to Section 108.09 of the Standard Specifications, **the disincentive fee will be charged during those periods when seasonal limitations of the Contract prohibit the Contractor from working on a controlling item or operation. This includes the months from December through March.**

All liquidated damages will be applied cumulatively.

All other applicable portions of Section 108 apply.

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

WK9001

The dimensions shown on the typical sections for pavement and shoulder widths are nominal or typical dimensions. The actual dimensions to be constructed may be varied to fit existing conditions as directed or approved by the Engineer. It is not intended that existing pavement or shoulders be widened unless specified elsewhere in the Proposal.

1I

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.

2.1 MATERIALS.

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

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

2.3 Sign and Controls. All signs must:

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

1I

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

/KEEP/RIGHT/⇒⇒⇒/
/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.

2.4 Power.

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

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

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

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

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

1I

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	Pay Unit
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

SPECIAL NOTE
UTILITIES

BEFORE YOU DIG

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

COORDINATION WITH UTILITY FACILITY OWNERS

The Roadway Contractor will be responsible for contacting all utility facility owners on the subject project to have existing facilities located in the field. The Roadway 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 Roadway Contractor will coordinate any necessary relocation work with the facility owner.

PROTECTION OF UTILITY FACILITIES

The location of utilities provided in the contact document has been furnished by the facility owners and/or by reviewing record drawings and may not be accurate. It will be the Roadway Contractor's responsibility to locate the utilities before excavating by calling the various utility owners and by examining any supplemental information supplied by the Cabinet. If necessary, the Roadway Contractor shall determine the exact location and elevation of utilities by hand digging to expose utilities before excavating in the area of the utility. The cost for repair and any other associated costs for any damage to utilities caused by the Roadway Contractor's operation shall be borne by the Roadway Contractor.

SPECIAL PROVISION FOR WASTE AND BORROW SITES

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

01/01/2009

SPECIAL NOTE FOR LONGITUDINAL PAVEMENT JOINT ADHESIVE

1. DESCRIPTION. This specification covers the requirements and practices for applying an asphalt adhesive material to the longitudinal joint of the surface course of an asphalt pavement. Apply the adhesive to the face of longitudinal joint between driving lanes for the first lane paved. Then, place and compact the adjacent lane against the treated face to produce a strong, durable, waterproof longitudinal joint.

2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Joint Adhesive. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide an adhesive conforming to the following requirements:

Property	Specification	Test Procedure
Viscosity, 400 ° F (Pa·s)	4.0 – 10.0	ASTM D 4402
Cone Penetration, 77 ° F	60 – 100	ASTM D 5329
Flow, 140 ° F (mm)	5.0 max.	ASTM D 5329
Resilience, 77 ° F (%)	30 min.	ASTM D 5329
Ductility, 77 ° F (cm)	30.0 min.	ASTM D 113
Ductility, 39 ° F (cm)	30.0 min.	ASTM D 113
Tensile Adhesion, 77 ° F (%)	500 min.	ASTM D 5329, Type II
Softening Point, ° F	171 min.	AASHTO T 53
Asphalt Compatibility	Pass	ASTM D 5329

Ensure the temperature of the pavement joint adhesive is between 380 and 410 °F when the material is extruded in a 0.125-inch-thick band over the entire face of the longitudinal joint.

2.2. Equipment.

2.2.1 Melter Kettle. Provide an oil-jacketed, double-boiler, melter kettle equipped with any needed agitation and recirculating systems.

2.2.2 Applicator System. Provide a pressure-feed-wand applicator system with an applicator shoe attached.

2.3 Personnel. Ensure a technical representative from the manufacturer of the pavement joint adhesive is present during the initial construction activities and available upon the request of the Engineer.

3. CONSTRUCTION.

3.1 Surface Preparation. Prior to the application of the pavement joint adhesive, ensure the face of the longitudinal joint is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the joint face by the use of compressed air.

Ensure this preparation process occurs shortly before application to prevent the return of debris on the joint face.

3.2 Pavement Joint Adhesive Application. Ensure the ambient temperature is a minimum of 40 ^{o} F during the application of the pavement joint adhesive. Prior to applying the adhesive, demonstrate competence in applying the adhesive according to this note to the satisfaction of the Engineer. Heat the adhesive in the melter kettle to the specified temperature range. Pump the adhesive from the melter kettle through the wand onto the vertical face of the cold joint. Apply the adhesive in a continuous band over the entire face of the longitudinal joint. Do not use excessive material in either thickness or location. Ensure the edge of the extruded adhesive material is flush with the surface of the pavement. Then, place and compact the adjacent lane against the joint face. Remove any excessive material extruded from the joint after compaction (a small line of material may remain).

3.3 Pavement Joint Adhesive Certification. Furnish the joint adhesive's certification to the Engineer stating the material conforms to all requirements herein prior to use.

3.4 Sampling and Testing. The Department will require a random sample of pavement joint adhesive from each manufacturer's lot of material. Extrude two 5 lb. samples of the heated material and forward the sample to the Division of Materials for testing. Reynolds oven bags, turkey size, placed inside small cardboard boxes or cement cylinder molds have been found suitable. Ensure the product temperature is 400°F or below at the time of sampling.

4. MEASUREMENT. The Department will measure the quantity of Pavement Joint Adhesive in linear feet. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of Pavement Joint Adhesive, the cleaning of the joint face, or furnishing and placing the adhesive. The Department will consider all such items incidental to the Pavement Joint Adhesive.

5. PAYMENT. The Department will pay for the Pavement Joint Adhesive at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

11N

Pavement Joint Adhesive Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Joint Adhesive Referenced in Subsection 2.1.1						
Viscosity, 400 ° F (Pa•s)			3.0-3.4	2.5-2.9	2.0-2.4	≤1.9
ASTM D 3236	4.0-10.0	3.5-10.5	10.6-11.0	11.1-11.5	11.6-12.0	≥ 12.1
Cone Penetration, 77 ° F			54-56	51-53	48-50	≤ 47
ASTM D 5329	60-100	57-103	104-106	107-109	110-112	≥ 113
Flow, 140 ° F (mm) ASTM D 5329	≤ 5.0	≤ 5.5	5.6-6.0	6.1-6.5	6.6-7.0	≥ 7.1
Resilience, 77 ° F (%) ASTM D 5329	≥ 30	≥ 28	26-27	24-25	22-23	≤ 21
Tensile Adhesion, 77 ° F (%) ASTM D 5329	≥ 500	≥ 490	480-489	470-479	460-469	≤ 459
Softening Point, ° F AASHTO T 53	≥ 171	≥ 169	166-168	163-165	160-162	≤ 159
Ductility, 77 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9
Ductility, 39 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9

Code	Pay Item	Pay Unit
20071EC	Joint Adhesive	Linear Foot

May 7, 2014

SPECIAL NOTE FOR
ASPHALT MILLING AND TEXTURING

Asphalt Millings from the project are to be placed in shoulder drop-off areas as directed by the Engineer. The remaining Asphalt Millings from the project shall become the property of the Contractor.

SPECIAL NOTE FOR INLAID PAVEMENT MARKERS

I. DESCRIPTION

Except as provided herein, perform all work in accordance with the Department's Standard and Supplemental Specifications and applicable Standard and Sepia Drawings, current editions. Article references are to the Standard Specifications. This work shall consist of:

(1) Maintain and Control Traffic; and (2) Furnish and install Inlaid Pavement Markers (IPMs) in recessed grooves; and (3) Any other work as specified by these notes and the Contract.

II. MATERIALS

The Department will sample all materials in accordance with the Department's Sampling Manual. Make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

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

B. Markers. Provide reflective lenses with depth control breakaway positioning tabs. Before furnishing the markers, provide to the Engineer the manufacturer's current recommendations for adhesives and installation procedures. Use one brand and design throughout the project. Use markers meeting the specifications in the table below.

SPECIFICATIONS FOR HOUSING AND REFLECTOR	
Material:	Polycarbonate Plastic
Weight:	Housing 2.00 oz.
	Reflector 2.00oz.
Housing Size:	5.00" x 3.00" x 0.70" high
Specific Intensity of Reflectivity at 0.2° Observation Angle	
White:	3.0 at 0°entrance angle
	1.2 at 20°entrance angle
Yellow:	60% of white values
Red:	25% of white values

C. Adhesives. Use adhesives that conform to the manufacturer's recommendations.

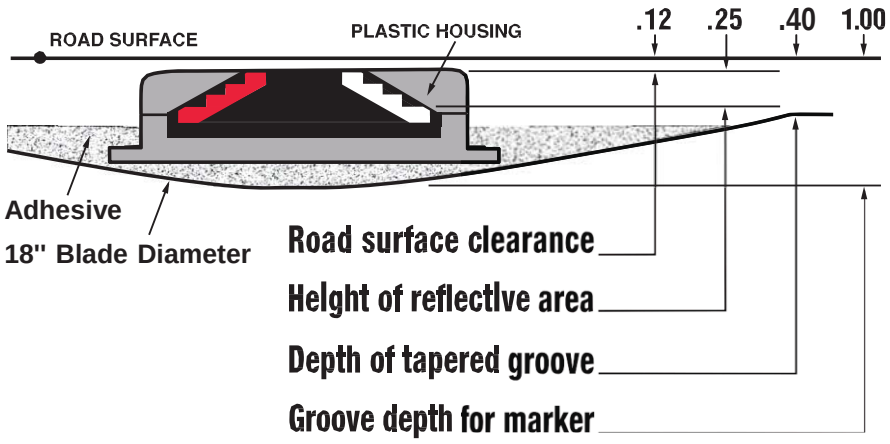
III. CONSTRUCTION

A. Experimental Evaluation. The University of Kentucky Transportation Center will be evaluating this installation of IPMs. Notify the Engineer a minimum of 14 calendar days prior to beginning work. The Engineer will coordinate the University's activities with the Contractor's work.

B. Maintain and Control Traffic. See Traffic Control Plan.

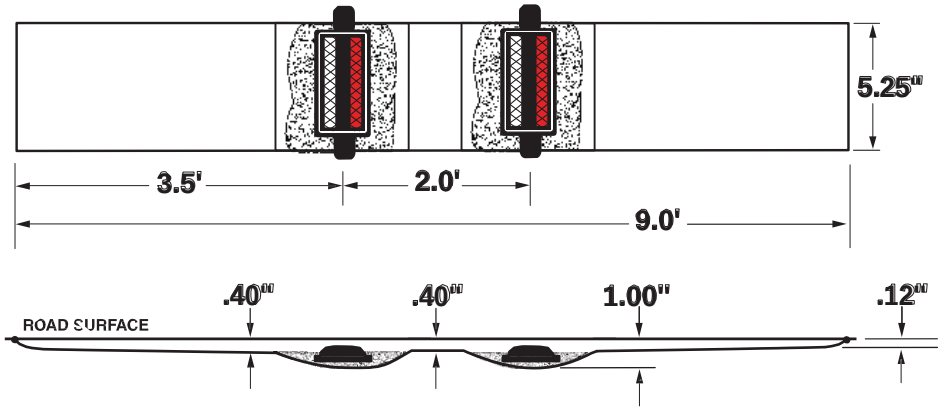
C. Installation. Install IPMs in recessed grooves cut into the final course of asphalt pavement according to the manufacturer's recommendations. Do not cut the grooves until the pavement has cured sufficiently to prevent tearing or raveling. Cut installation grooves using diamond blades on saws that accurately control groove dimensions. Remove all dirt, grease, oil, loose or unsound layers, and any other material from the marker area which would reduce the bond of the adhesive. Maintain pavement surfaces in a clean condition until placing markers.

Prepare the pavement surfaces, and install the markers in the recessed groove according to the drawing below. Use an approved snowplowable epoxy adhesive. Ensure that the adhesive bed area is equal to the bottom area of the marker, and apply adhesive in sufficient quantity to force excess out around the entire perimeter of the marker. Use materials, equipment, and construction procedures that ensure proper adhesion of the markers to the pavement surface according to the manufacturer's recommendations. Remove all excess adhesive from in front of the reflective faces. If any adhesive or foreign matter cannot be removed from the reflective faces, or if any marker fails to properly adhere to the pavement surface, remove and replace the marker at no additional cost to the Department.



D. Location and Spacing. Install the markers in the pattern for high reflectivity with two (2) IPMs per groove. Locate and space markers as shown in the current standard drawings or sepias (note: use Inlaid Pavement Markers wherever Type V Pavement Markers are called for). Do not install markers on bridge decks. Do not install a marker

on top of a pavement joint or crack. Offset the recessed groove a minimum of 2 inches from any longitudinal pavement joint or crack and at least one inch from the painted stripe, ensuring that the finished line of markers is straight with minimal lateral deviation. Give preference to maintaining the 2-inch offset between recessed groove and joint as opposed to keeping the line of markers straight.



Place inlaid markers as much in line with existing pavement striping as possible. Place markers installed along an edge line or channelizing line so that the near edge of the plastic housing is no more than one inch from the near edge of the line. Place markers installed along a lane line between and in line with the dashes. Do not place markers over the lines except where the lines deviate visibly from their correct alignment, and then only after obtaining the Engineer's prior approval of the location.

If conflicts between recessed groove placement in relation to pavement joint and striping cannot be resolved, obtain the Engineer's approval to eliminate the marker or revise the alignment.

E. Disposal of Waste. Dispose of all removed asphalt pavement, debris, and other waste 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.

F. Restoration. Be responsible for all damage to public and/or private property resulting from the work. Restore all damaged features in like kind materials and design at no additional cost to the Department.

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

H. Caution. Do not take information shown on the drawings and in this proposal and the types and quantities of work listed as an accurate or complete evaluation of the

material and conditions to be encountered during construction, but consider the types and quantities of work listed as approximate only. The bidder must draw his own conclusion as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation or extension of Contract time if the conditions encountered are not in accordance with the information shown.

IV. MEASUREMENT

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

B. "INLAID PAYMENT MARKER" shall be measured as each. One (1) installation of "INLAID PAVEMENT MARKER" will consist of grooving the pavement, removing asphalt cuttings and debris, preheating pavement to remove moisture, adhesives, and installation of two (2) markers with all lenses in accordance with this note.

Note: Each pay item of Inlaid Pavement Marker will require two markers.

V. PAYMENT

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

B. Inlaid Pavement Markers. The Department will make payment for the completed and accepted quantity of completely installed "INLAID PAVEMENT MARKERS" at the Contract unit price, each. Accept payment as full compensation for all labor, equipment, materials, and incidentals to accomplish this work to the satisfaction of the Engineer. A system of one (1) groove and two (2) markers shall be paid as one "INLAID PAVEMENT MARKER". The bid item "INLAID PAVEMENT MARKER" shall be used regardless of the color and type of lenses required.

447 COMPACTION OF ASPHALT MIXTURES

WILL ACCEPT THE COMPACTION OF ASPHALT MIXTURES FURNISHED FOR DRIVING LANES AND RAMPS AT ONE INCH (25 MM) OR GREATER ON THIS PROJECT BY OPTION A ACCORDING TO SUBSECTIONS 402 AND 403 OF THE CURRENT STANDARD SPECIFICATIONS. USE JOINT CORES AS DESCRIBED IN SUBSECTION 402.03.02 FOR SURFACE MIXTURES ONLY. WILL ACCEPT THE COMPACTION OF ALL OTHER ASPHALT MIXTURES BY OPTION B.

SPECIAL NOTE FOR GUARDRAIL END TREATMENT TYPE 1

Contrary to KYTC Standard Drawing RBR-020-05 the guardrail end treatment ET-Plus manufactured by Trinity Industries will not be permitted as an option for bid item “Guardrail End Treatment Type 1”.

Special Note For:
Erosion Prevention and Sediment Control
WK9001; Grayson County

The Contractor shall be responsible for filing the Kentucky Pollution Discharge Elimination System (KPDES) KYR10 permit Notice of Intent (NOI) with the Kentucky Division of Water (DOW) and any KPDES local Municipal Separate Storm Sewer System (MS4) program that has jurisdiction. The NOI shall name the contractor as the Facility Operator and include the KYTC Contract ID Number (CID) for reference.

The Contractor shall perform all temporary erosion/sediment control functions including: providing a Best Management Practice (BMP) Plan, conducting required inspections, modifying the BMP plan documents as construction progresses and documenting the installation and maintenance of BMPs in conformance with the KPDES KYR10 permit effective on August 1, 2009 or a permit re-issued to replace that KYR10 permit. This work shall be conducted in conformance with the requirements of Section 213 of KYTC 2008 Department of Highways, Standard Specifications for Road and Bridge Construction.

Contrary to Section 213.03.03, paragraph 2, the Engineer shall conduct inspections as needed to verify compliance with Section 213 of KYTC 2008 Department of Highways, Standard Specifications for Road and Bridge Construction. The Engineer's inspections shall be performed a minimum of once per month and within seven days after a storm of ½ inch or greater. Copies of the Engineer's inspections shall not be provided to the contractor unless improvements to the BMP's are required. The contractor shall initiate corrective action within 24 hours of any reported deficiency and complete the work within 5 days. The Engineer shall use Form TC 63-61 A for this report. Inspections performed by the Engineer do not relieve the Contractor of any responsibility for compliance with the KPDES permit.

Contrary to Section 213.05, bid items for temporary BMPs will not be listed and will be replaced with one lump sum item for the services. Payment will be pro-rated based on the Project Schedule as submitted by the Contractor and as agreed to by the Engineer.

The contractor shall be responsible for applying "good engineering practices" as required by the KPDES permit. The contractor may use any temporary BMPs with the approval of the KYTC Engineer.

The contractor shall provide the Engineer copies of all documents required by the KPDES permit at the time they are prepared.

The contractor shall be responsible for the examination of the soils to be encountered and make his own independent determination of the temporary BMPs that will be required to accomplish effective erosion prevention and sediment control.

The Contractor shall be responsible for filing the KPDES permit Notice of Termination (NOT) with the Kentucky DOW and any local MS4 program that has jurisdiction. The NOT shall be filed after the Engineer agrees that the project is stabilized or the project has been formally accepted.

Payment: Payment will by lump sum under the bid item "K.P.D.E.S. PERMIT & TEMPORARY EROSION CONTROL".

SPECIAL NOTE FOR INTELLIGENT COMPACTION OF ASPHALT MIXTURES

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

1.0 DESCRIPTION. Provide and use Intelligent Compaction (IC) Rollers for compaction of all asphalt mixtures.

2.0 MATERIALS AND EQUIPMENT. In addition to the equipment specified in Subsection 403.02, a minimum of one (1) IC roller is to be used on the project at all times. The Contractor may elect to only use one (1) IC roller for compaction as the breakdown or intermediate roller. All IC rollers will meet the following minimum characteristics:

1) Are self propelled double-drum vibratory rollers equipped with accelerometers mounted in or about the drum to measure the interactions between the rollers and compacted materials in order to evaluate the applied compactive effort. The IC rollers must have the approval of the Engineer prior to use. Examples of rollers equipped with IC technology can be found at www.IntelligentCompaction.com.

2) Are equipped with non-contact temperature sensors for measuring pavement surface temperatures.

3) The output from the roller is designated as the IC-MV which represents the stiffness of the materials based on the vibration of the roller drums and the resulting response from the underlying materials.

4) Are equipped with integrated on-board documentation systems that are capable of displaying real-time color-coded maps of IC measurement values including the stiffness response values, location of the roller, number of roller passes, machine settings, together with the material temperature, speed and the frequency and amplitude of roller drums. Ensure the display unit is capable of transferring the data by means of a USB port.

5) Are equipped with a mounted Global Positioning System GPS radio and receiver either a Real Time Kinematic (RTK-GPS) or Global Navigational Satellite System (GNSS) units that monitor the location and track the number of passes of the rollers. Accuracy of the positioning system is to be a minimum of 12 inches.

3.0 WORK PLAN. Submit to the Engineer an IC Work Plan at the Preconstruction Conference and at least 2 weeks prior to the beginning construction. Describe in the work plan the following:

1. Compaction equipment to be used including:
   - Vendor(s)
   - Roller model(s),
   - Roller dimensions and weights,
   - Description of IC measurement system,
   - GPS capabilities,
   - Documentation system,
   - Temperature measurement system, and
   - Software.

2. Roller data collection methods including sampling rates and intervals and data file types.

3. Transfer of data to the Engineer including method, timing, and personnel responsible. Data transfer shall occur at minimum twice per day or as directed by the Engineer, and is to be either electronic or digital.

4. Provide the Engineer with a new laptop computer with the following minimum requirements: Windows 7 Pro 64bit, 2.0GHz processor, 32GB RAM, 500GB hard drive, DVD drive (reads and writes DVD/CD), and 14 inch display. **The Cabinet retains possession of the equipment upon completion of the project.**

5. Provide the Section Engineer the following new GPS survey equipment; this is a sole source item to ensure compatibility with the Cabinet's existing equipment, **The Cabinet retains possession of the equipment upon completion of the project:**

Item	Part No.	Description	Quantity
1	R10-001-60	Trimble R10, internal 410-470 MHz radio	2
2	TSC3-01-1120	Trimble TSC3, w/Trimble Access, with internal radio QWERTY Keypad	1
3	SA-ROADS-P	Trimble Access – Roads Perpetual License	1
4	43169-00	Rod - 2.0m Carbon Fiber Range Pole with Bipod	1
5	82758-00	Trimble TSC3 Accessory - Range Pole Bracket	1
6	74450-14	TDL 450H Field Battery Charger Kit	1
7	74450-96	TDL 450H – 35W Radio System Kit; 450-470 MHz	1
8	12178	Tripod - Wooden Medium Duty	1
9	74450-50-70	Antenna kit with 1.8m mast	1
10	28959-00	Tripod-Adjustable height 2M for GPS base	1

6. Training plan and schedule for roller operators, project foreman, project surveyors, and Cabinet personnel; including both classroom and field training. Training should be conducted at least 1 week before beginning IC construction. The training is to be performed by a qualified representative(s) from the IC Roller manufacture(s) to be used on the project.

4.0 CONSTRUCTION. Do not begin work until the Engineer has approved the IC submittals and the IC equipment.

Follow requirements established in Section 400 for production and placement, materials, equipment, acceptance plans and adjustments except as noted or modified in this Specification. Provide the Engineer at least one day's notice prior to beginning construction or prior to resuming production if operations have been temporarily suspended. Ensure paving equipment complies with all requirements specified in Section 400. The IC roller temperatures will be evaluated by the Department with the data from a Paver Mounted Infrared Temperature Gauge.

A. Pre-Construction Test Section(s) Requirements

1. Prior to the start of production, ensure the proper setup of the GPS, IC roller(s) and the rover(s) by conducting joint GPS correlation and verification testing between the Contractor, GPS representative and IC roller manufacturer using the same datum.

1. Ensure GPS correlation and verification testing includes the following minimum processes:

   a. Establish the GPS system to be used either one with a base station or one with mobile receivers only. Ensure all components in the system are set to the correct coordinate system; then,

   b. Verify that the roller and rover are working properly and that there is a connection with the base station; then,

   c. Record the coordinates of the two edges where the front drum of the roller is in contact with the ground from the on-board, color-coded display; then,

d. Mark the locations of the roller drum edges and move the roller, and place the mobile receiver at each mark and record the readings; then,

2. Compare coordinates between the roller and rover receivers. If the coordinates are within 12.0 in. of each other, the comparison is acceptable. If the coordinates are not within 12.0 in., diagnose and perform necessary corrections and repeat the above steps until verification is acceptable.

3. Do not begin work until acceptable GPS correlation and verification has been obtained.

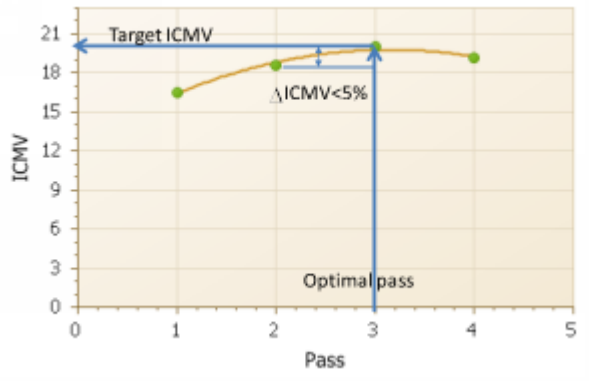
4. The Contractor and the Department should conduct random GPS verification testing during production to ensure data locations are accurate. The recommended rate is once per day with a requirement of at least once per week.

5. All acceptance testing shall be as outlined in Standard Specifications section 400.

B. Construction Test Section(s) Requirements

Construct test section(s) at location(s) agreed on by the Contractor and the Engineer within the project limits. The test section is required to determine a compaction curve of the asphalt mixtures in relationship to number of roller passes and to the stiffness of mixture while meeting the Department in-place compaction requirements. All rollers and the respective number of passes for each is to be determined via control strip each time a material change, equipment change or when the Engineer deems necessary.

Conduct test section(s) on every lift and every asphalt mixture. Ensure test section quantities of 500 to 1,000 tons of mainline mixtures. Operate IC rollers in the low to medium amplitude range and at the same settings (speed, frequency) throughout the section while minimizing overlapping of the roller, **the settings are to be used throughout the project with no changes.** After each roller pass, the qualified technician from the contractor observed by the Department will use a nondestructive nuclear gauge that has been calibrated to the mixture to estimate the density of the asphalt at 10 locations uniformly spaced throughout the test section within the width of a single roller pass. The density readings and the number of roller passes needed to achieve the specified compaction will be recorded. The estimated target density will be the peak of the average of the nondestructive readings within the desired compaction temperature range for the mixture. The IC roller data in conjunction with the Veda software will create an IC compaction curve for the mixture. The target IC-MV is the point when the increase in the IC-MV of the material between passes is less than 5 percent on the compaction curve. The IC compaction curve is defined as the relationship between the IC-MV and the roller passes. A compaction curve example is as follows:



Subsequent to the determination of the target IC-MV, compact an adjoining > 250 < 500 tons section using same roller settings and the number of estimated roller passes and allow the Department to verify the compaction with the same calibrated nondestructive nuclear gauge following the final roller pass. **The Department will obtain cores at 10 locations** uniformly spaced throughout the test section within the width of the single roller. Obtain GPS measurement of the core locations with a GPS rover. Use the Veda software to perform least square linear regression between the core

data and IC-MV in order to correlate the production IC-MV values to the Department specified in-place air voids. A sample linear regression curve example is as follows.

C. Construction Requirements
Use the IC roller on all lifts and types of asphalt within the limits of the project.

Ensure the optimal number of roller passes determined from the test sections has been applied to a minimum coverage of 80% of the individual IC Construction area. Ensure a minimum of 75% of the individual IC Construction area meets the target IC-MV values determined from the test sections.

Do not continue paving operations if IC Construction areas not meeting the IC criteria are produced until they have been investigated by the Department. Obtain the Engineer's approval to resume paving operations. Non-IC rollers are allowed to be used as the third roller on the project; one of the breakdown or the finish rollers is to be equipped with IC technology.

IC Construction areas are defined as subsections of the project being worked continuously by the Contractor. The magnitude of the IC Construction areas may vary with production but must be at least 750 tons per mixture for evaluation. Partial IC Construction areas of < 750 tons will be included in the previous area evaluation. IC Construction areas may extend over multiple days depending on the operations.

The IC Construction Operations Criteria does not affect the Department's acceptance processes for the materials or construction operations

5.0 MEASUREMENT. The Department will measure the total tons of asphalt mixtures compacted using the IC roller(s). Compaction is to be performed by a minimum of one IC roller, material compacted by rollers not equipped with properly functioning IC equipment will not be accepted for payment of the bid item asphalt mixtures IC rolled. Use of non-IC rollers can be accepted on small areas due to equipment malfunctions at the written approval of the Engineer. Paving operations should be suspended for equipment malfunctions that will extend over three days of operation.

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

1. Payment is full compensation for all work associated with providing IC equipped rollers, all required survey equipment and computer, transmission of electronic data files, two copies of IC roller manufacturer software, and training.

2. Delays due to GPS satellite reception of signals to operate the IC equipment or IC roller breakdowns will not be considered justification for contract modifications or contract extensions.

Code	Pay Item	Pay Unit
24781EC	Intelligent Compaction for Asphalt	TON

May 4, 2015.

161222

PROPOSAL BID ITEMS

Report Date 3/10/16

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00100		ASPHALT SEAL AGGREGATE	508.00	TON		$	
0020	00103		ASPHALT SEAL COAT	64.00	TON		$	
0030	00190		LEVELING & WEDGING PG64-22	1,000.00	TON		$	
0040	00301		CL2 ASPH SURF 0.38D PG64-22	2,613.00	TON		$	
0050	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		$	
0060	02677		ASPHALT PAVE MILLING & TEXTURING	9,928.00	TON		$	
0070	02696		SHOULDER RUMBLE STRIPS-SAWED	57,003.00	LF		$	
0080	20071EC		JOINT ADHESIVE	57,003.00	LF		$	
0090	22906ES403		CL3 ASPH SURF 0.38A PG64-22	7,315.00	TON		$	
0091	24781EC		INTELLIGENT COMPACTION FOR ASPHALT (ADDED: 3-10-16)	9,928.00	TON		$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0100	00078		CRUSHED AGGREGATE SIZE NO 2	1,958.00	TON		$	
0110	00468		CULVERT PIPE-36 IN	8.00	LF		$	
0120	01212		PIPE CULVERT HEADWALL-36 IN	1.00	EACH		$	
0130	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	79.00	EACH		$	
0140	01983		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL YELLOW	8.00	EACH		$	
0150	02165		REMOVE PAVED DITCH	989.00	SQYD		$	
0160	02367		GUARDRAIL END TREATMENT TYPE 1	7.00	EACH		$	
0170	02369		GUARDRAIL END TREATMENT TYPE 2A	7.00	EACH		$	
0180	02381		REMOVE GUARDRAIL	7,076.00	LF		$	
0190	02382		GUARDRAIL CONNECT-SHLD BRIDGE PIER TY A	2.00	EACH		$	
0200	02384		GUARDRAIL CONNECT SHLD BRIDGE PIER TY A1	1.00	EACH		$	
0210	02391		GUARDRAIL END TREATMENT TYPE 4A	1.00	EACH		$	
0220	02483		CHANNEL LINING CLASS II	4,140.00	TON		$	
0230	02484		CHANNEL LINING CLASS III	494.00	TON		$	
0240	02562		TEMPORARY SIGNS	2,000.00	SQFT		$	
0250	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		$	
0260	02671		PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		$	
0270	02929		CRASH CUSHION TYPE IX	4.00	EACH		$	
0280	06401		FLEXIBLE DELINEATOR POST-M/W	110.00	EACH		$	
0290	06404		FLEXIBLE DELINEATOR POST-M/Y	2.00	EACH		$	
0300	10020NS		FUEL ADJUSTMENT	15,453.00	DOLL	$1.00	$	$15,453.00
0310	10030NS		ASPHALT ADJUSTMENT	38,815.00	DOLL	$1.00	$	$38,815.00
0320	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	6,488.00	LF		$	
0330	23143ED		KPDES PERMIT AND TEMP EROSION CONTROL	1.00	LS		$	
0340	24189ER		DURABLE WATERBORNE MARKING-6 IN W	35,627.00	LF		$	
0350	24190ER		DURABLE WATERBORNE MARKING-6 IN Y	28,501.00	LF		$	
0360	24489EC		INLAID PAVEMENT MARKER	356.00	EACH		$	

161222

PROPOSAL BID ITEMS

Report Date 3/10/16

Section: 0003 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0370	02569		DEMOBILIZATION	1.00	LS		$	