G 1 41	100 03 B					
Subsection:	108.03 Preconstruction Conference.					
Revision:	Replace 8) Staking with the following:					
	8) Staking (designated by a Professional Engineer or Land Surveyor licensed in the					
	Commonwealth of Kentucky.					
Subsection:	109.07.02 Fuel.					
Revision:	Revise item Crushed Aggregate Used for Embankment Stabilization to the following:					
	Crushed Aggregate					
	Used for Stabilization of Unsuitable Materials					
	Used for Embankment Stabilization					
Subsection:	110.02 Demobilization.					
Revision:	Replace the first part of the first sentence of the second paragraph with the following:					
	Perform all work and operations necessary to accomplish final clean-up as specified in the first					
	paragraph of Subsection 105.12;					
Subsection:	112.03.12 Project Traffic Coordinator (PTC).					
Revision:	Replace the last paragraph of this subsection with the following:					
	Ensure the designated PTC has sufficient skill and experience to properly perform the task					
	assigned and has successfully completed the qualification courses.					
Subsection:	112.04.18 Diversions (By-Pass Detours).					
Revision:	Insert the following sentence after the 2nd sentence of this subsection.					
	The Department will not measure temporary drainage structures for payment when the contract					
	documents provide the required drainage opening that must be maintained with the diversion.					
	The temporary drainage structures shall be incidental to the construction of the diversion. If the					
	contract documents fail to provide the required drainage opening needed for the diversion, the					
	cost of the temporary drainage structure will be handled as extra work in accordance with					
	section 109.04.					
Subsection:	201.03.01 Contractor Staking.					
Revision:	Replace the first paragraph with the following: Perform all necessary surveying under the					
	general supervision of a Professional Engineer or Land Surveyor licensed in the					
	Commonwealth of Kentucky.					
Subsection:	201.04.01 Contractor Staking.					
Revision:	Replace the last sentence of the paragraph with the following: Complete the general layout of					
120 (252022)	the project under the supervision of a Professional Engineer or Land Surveyor licensed in the					
	Commonwealth of Kentucky.					
Subsection:	206.04.01 Embankment-in-Place.					
Revision:	Replace the fourth paragraph with the following: The Department will not measure suitable					
	excavation included in the original plans that is disposed of for payment and will consider it					
	incidental to Embankment-in-Place.					
Subsection:	208.02.01 Cement.					
Revision:	Replace paragraph with the following:					
	Select Type I or Type II cement conforming to Section 801. Use the same type cement					
	throughout the work.					
]	anoughout the work.					

	-						
Subsection:	208.03.06 Curing and Protection.						
Revision:	Replace the fourth paragraph with the following:						
	Do not allow traffic or equipment on the finished surface until the stabilized subgrade has cured for a total of 7-days with an ambient air temperature above 40 degrees Fahrenheit. A curing day consists of a continuous 24-hour period in which the ambient air temperature does not fall below 40 degrees Fahrenheit. Curing days will not be calculated consecutively, but must total seven (7), 24-hour days with the ambient air temperature remaining at or above 40 degrees Fahrenheit before traffic or equipment will be allowed to traverse the stabilized subgrade. The Department may allow a shortened curing period when the Contractor requests. The Contractor shall give the Department at least 3 day notice of the request for a shortened curing period. The Department will require a minimum of 3 curing days after final compaction. The Contractor shall furnish cores to the treated depth of the roadbed at 500 feet intervals for each lane when a shortened curing time is requested. The Department will test cores using an unconfined compression test. Roadbed cores must achieve a minimum strength requirement of 80 psi.						
Subsection:	208.03.06 Curing and Protection.						
Revision:	Replace paragraph nine with the following:						
Kevision.	At no expense to the Department, repair any damage to the subgrade caused by freezing.						
Subsection:	212.03.03 Permanent Seeding and Protection.						
Part:	A) Seed Mixtures for Permanent Seeding.						
Number:	2)						
Revision:	Replace the paragraph with the following:						
	Permanent Seeding on Slopes Greater than 3:1 in Highway Districts 4, 5, 6, and 7. Apply seed mix Type II at a minimum application rate of 100 pounds per acre. If adjacent to a golf course replace the crown vetch with Kentucky 31 Tall Fescue.						
Subsection:	212.03.03 Permanent Seeding and Protection.						
Part:	A) Seed Mixtures for Permanent Seeding.						
Number:	3)						
Revision:	Replace the paragraph with the following:						
	Permanent Seeding on Slopes Greater than 3:1 in Highway Districts 1, 2, 3, 8, 9, 10, 11, and 12. Apply seed mix Type III at a minimum application rate of 100 pounds per acre. If adjacent to crop land or golf course, replace the Sericea Lespedeza with Kentucky 31 Fescue.						
Subsection:	213.03.02 Progress Requirements.						
Revision:	Replace the last sentence of the third paragraph with the following:						
	Additionally, the Department will apply a penalty equal to the liquidated damages when all aspects of the work are not coordinated in an acceptable manner within 7 calendar days after written notification.						
Subsection:	213.03.05 Temporary Control Measures.						
Part:	E) Temporary Seeding and Protection.						
Revision:	Delete the second sentence of the first paragraph.						
Subsection:	304.02.01 Physical Properties.						
Table:	Required Geogrid Properties						
Revision:	Replace all references to Test Method "GRI-GG2-87" with ASTM D 7737.						

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Subsection:	402.03.02 Contractor Quality Control and Department Acceptance. B) Sampling.							
Part:								
Revision:	Replace the second sentence with the following: The Department will determine when to obtain							
	the quality control samples using the random-number feature of the mix design submittal and							
	approval spreadsheet. The Department will randomly determine when to obtain the verification							
	samples required in Subsections 402.03.03 and 402.03.04 using the Asphalt Mixture Sample							
	andom Tonnage Generator. 02 03 02 Contractor Quality Control and Department Acceptance							
Subsection:	402.03.02 Contractor Quality Control and Department Acceptance.							
Part:	D) Testing Responsibilities.							
Number:	3) VMA.							
Revision:	Add the following paragraph below Number 3) VMA: Retain the AV/VMA specimens and one							
	additional corresponding G _{mm} sample for 5 working days for mixture verification testing by the							
	Department. For Specialty Mixtures, retain a mixture sample for 5 working days for mixture							
	verification testing by the Department. When the Department's test results do not verify that							
	he Contractor's quality control test results are within the acceptable tolerances according to							
	ubsection 402.03.03, retain the samples and specimens from the affected sublot(s) for the							
	duration of the project.							
Subsection:	402.03.02 Contractor Quality Control and Department Acceptance.							
Part:	D) Testing Responsibilities.							
Number:	4) Density.							
Revision:	Replace the second sentence of the Option A paragraph with the following: Perform coring by							
	the end of the following work day.							
Subsection:	402.03.02 Contractor Quality Control and Department Acceptance.							
Part:	D) Testing Responsibilities.							
Number:	5) Gradation.							
Revision:	Delete the second paragraph.							
Subsection:	402.03.02 Contractor Quality Control and Department Acceptance.							
Part:	H) Unsatisfactory Work.							
Number:	1) Based on Lab Data.							
Revision:	Replace the second paragraph with the following: When the Engineer determines that safety							
	concerns or other considerations prohibit an immediate shutdown, continue work and the							
	Department will make an evaluation of acceptability according to Subsection 402.03.05.							

Subsection:	402.03.03 Verification.
Revision:	Replace the first paragraph with the following: 402.03.03 Mixture Verification. For volumetric properties, the Department will perform a minimum of one verification test for AC, AV, and VMA according to the corresponding procedures as given in Subsection 402.03.02. The Department will randomly determine when to obtain the verification sample using the Asphalt Mixture Sample Random Tonnage Generator. For specialty mixtures, the Department will perform one AC and one gradation determination per lot according to the corresponding procedures as given in Subsection 402.03.02. However, Department personnel will not perform AC determinations according to KM 64-405. The Contractor will obtain a quality control sample at the same time the Department obtains the mixture verification sample and perform testing according to the procedures given in Subsection 402.03.02. If the Contractor's quality control sample is verified by the Department's test results within the tolerances provided below, the Contractor's sample will serve as the quality control sample for the affected sublot. The Department may perform the mixture verification test on the Contractor's equipment or on the Department's equipment.
Subsection:	402.03.03 Verification.
Part:	A) Evaluation of Sublot(s) Verified by Department.
Revision:	Replace the third sentence of the second paragraph with the following: When the paired <i>t</i> -test indicates that the Contractor's data and Department's data are possibly not from the same population, the Department will investigate the cause for the difference according to Subsection 402.03.05 and implement corrective measures as the Engineer deems appropriate.
Subsection:	402.03.03 Verification.
Part: Revision:	B) Evaluation of Sublots Not Verified by Department. Replace the third sentence of the first paragraph with the following: When differences between test results are not within the tolerances listed below, the Department will resolve the discrepancy according to Subsection 402.03.05.
Subsection:	402.03.03 Verification.
Part:	B) Evaluation of Sublots Not Verified by Department.
Revision:	Replace the third sentence of the second paragraph with the following: When the <i>F</i> -test or <i>t</i> -test indicates that the Contractor's data and Department's data are possibly not from the same population, the Department will investigate the cause for the difference according to Subsection 402.03.05 and implement corrective measures as the Engineer deems appropriate.
Subsection:	402.03.03 Verification.
Part:	C) Test Data Patterns.
Revision:	Replace the second sentence with the following: When patterns indicate substantial differences between the verified and non-verified sublots, the Department will perform further comparative testing according to subsection 402.03.05.

Subsection:	402.03 CONSTRUCTION.							
Revision:	Add the following subsection: 402.03.04 Testing Equipment and Technician Verification.							
	For mixtures with a minimum quantity of 20,000 tons and for every 20,000 tons thereafter, the							
	Department will obtain an additional verification sample at random using the Asphalt Mixture							
	Sample Random Tonnage Generator in order to verify the integrity of the Contractor's and							
	Department's laboratory testing equipment and technicians. The Department will obtain a							
	mixture sample of at least 150 lb at the asphalt mixing plant according to KM 64-425 and split							
	it according to AASHTO R 47. The Department will retain one split portion of the sample and							
	provide the other portion to the Contractor. At a later time convenient to both parties, the							
	Department and Contractor will simultaneously reheat the sample to the specified compaction							
	temperature and test the mixture for AV and VMA using separate laboratory equipment							
	according to the corresponding procedures given in Subsection 402.03.02. The Department							
	will evaluate the differences in test results between the two laboratories. When the difference							
	between the results for AV or VMA is not within ± 2.0 percent, the Department will investigate							
	and resolve the discrepancy according to Subsection 402.03.05.							
Subsection:	402.03.04 Dispute Resolution.							
Revision:	Change the subsection number to 402.03.05.							
Subsection:	402.05 PAYMENT.							
Part:	Lot Pay Adjustment Schedule Compaction Option A Base and Binder Mixtures							
Table:	AC							
Revision:	Replace the Deviation from JMF(%) that corresponds to a Pay Value of 0.95 to ±0.6.							
Subsection:	403.02.10 Material Transfer Vehicle (MTV).							
Revision:	Replace the first sentence with the following: In addition to the equipment specified above,							
	provide a MTV with the following minimum characteristics:							
Subsection:	412.02.09 Material Transfer Vehicle (MTV).							
Revision:	Replace the paragraph with the following:							
G 1	Provide and utilize a MTV with the minimum characteristics outlined in section 403.02.10.							
Subsection:	412.03.07 Placement and Compaction. Replace the first paragraph with the following:							
Revision:	Use a MTV when placing SMA mixture in the driving lanes. The MTV is not required on							
	ramps and/or shoulders unless specified in the contract. When the Engineer determines the use							
	of the MTV is not practical for a portion of the project, the Engineer may waive its requirement							
	for that portion of pavement by a letter documenting the waiver.							
Subsection:	412.04 MEASUREMENT.							
Revision:	Add the following subsection:							
	412.04.03. Material Transfer Vehicle (MTV). The Department will not measure the MTV for							
	payment and will consider its use incidental to the asphalt mixture.							
-	<u> </u>							

	501.03.19 Surface Tolerances and Testing Surface.				
Part:	B) Ride Quality.				
Revision:	Add the following to the end of the first paragraph:				
	The Department will specify if the ride quality requirements are Category A or Category B				
	when ride quality is specified in the Contract. Category B ride quality requirements shall apply				
	when the Department fails to classify which ride quality requirement will apply to the Contract.				
Subsection:	603.03.06 Cofferdams.				
Revision:	Replace the seventh sentence of paragraph one with the following:				
	Submit drawings that are stamped by a Professional Engineer licensed in the Commonwealth of				
	Kentucky.				
Subsection:	605.03.04 Tack Welding.				
Revision:	Insert the subsection and the following: 605.03.04 Tack Welding. The Department does not				
	allow tack welding.				
Subsection:	606.03.17 Special Requirements for Latex Concrete Overlays.				
Part:	A) Existing Bridges and New Structures.				
Number:	1) Prewetting and Grout-Bond Coat.				
Revision:	Add the following sentence to the last paragraph: Do not apply a grout-bond coat on bridge				
	decks prepared by hydrodemolition.				
Subsection:	609.03 Construction.				
Revision:	Replace Subsection 609.03.01 with the following:				
	609.03.01 A) Swinging the Spans. Before placing concrete slabs on steel spans or precast				
	concrete release the temporary erection supports under the bridge and swing the span free on its				
	supports.				
	609.03.01 B) Lift Loops. Cut all lift loops flush with the top of the precast beam once the				
	beam is placed in the final location and prior to placing steel reinforcement. At locations where				
	lift loops are cut, paint the top of the beam with galvanized or epoxy paint.				
Subsection:	611.03.02 Precast Unit Construction.				
Revision:	Replace the first sentence of the subsection with the following: Construct				
	units according to ASTM C1577, replacing Table 1 (Design Requirements for Precast				
	Concrete Box Sections Under Earth, Dead and HL-93 Live Load Conditions) with KY				
	Table 1 (Precast Culvert KYHL-93 Design Table), and Section 605 with the following				
	exceptions and additions:				
Subsection:	613.03.01 Design.				
Number:	[2)				
Revision:	Replace "AASHTO Standard Specifications for Highway Bridges" with "AASHTO LRFD				
	Bridge Design Specifications"				
Subsection:					
Revision:	Add the following sentence to the end of the subsection. The ends of units shall be normal to				
	walls and centerline except exposed edges shall be beveled ¾ inch.				
Subsection:	615.06.03 Placement of Reinforcement in Precast 3-Sided Units.				
Revision:	Replace the reference of 6.6 in the section to 615.06.06.				
Subsection:	615.06.04 Placement of Reinforcement for Precast Endwalls.				
Revision:	Replace the reference of 6.7 in the section to 615.06.07.				

Subsection:	615.06.06 Laps, Welds, and Spacing for Precast 3-Sided Units.
Revision:	Replace the subsection with the following: Tension splices in the circumferential reinforcement shall be made by lapping. Laps may not be tack welded together for assembly purposes. For smooth welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.2 and AASHTO 2012 Bridge Design Guide Section 5.11.6.3. For deformed welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.6.2. The overlap of welded wire fabric shall be measured between the outer most longitudinal wires of each fabric sheet. For deformed billet-steel bars, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.1. For splices other than tension splices, the overlap shall be a minimum of 12" for welded wire fabric or deformed billet-steel bars. The spacing center to center of the circumferential wires in a wire fabric sheet shall be no less than 2 inches and no more than 4 inches. The spacing center to center of the longitudinal wires shall not be more than 8 inches. The spacing center to center of the longitudinal distribution steel for either line of reinforcing in the top slab shall be not more than 16 inches.
Subsection:	615.06.07 Laps, Welds, and Spacing for Precast Endwalls.
Revision:	Replace the subsection with the following:
ACC VAISAUATA	Splices in the reinforcement shall be made by lapping. Laps may not be tack welded together for assembly purposes. For smooth welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.2 and AASHTO 2012 Bridge Design Guide Section 5.11.6.3. For deformed welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.1 and AASHTO 2012 Bridge Design Guide Section 5.11.2.5.1 and has half meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.1. The spacing center-to-center of the wire fabric sheet shall not be less than 2 inches or more than 8 inches.
Subsection:	615.08.01 Type of Test Specimen.
Revision:	Replace the subsection with the following: Start-up slump, air content, unit weight, and temperature tests will be performed each day on the first batch of concrete. Acceptable start-up results are required for production of the first unit. After the first unit has been established, random acceptance testing is performed daily for each 50 yd ³ (or fraction thereof). In addition to the slump, air content, unit weight, and temperature tests, a minimum of one set of cylinders shall be required each time plastic property testing is performed.
Subsection:	615.08.02 Compression Testing.
Revision:	Delete the second sentence.
Subsection:	615.08.04 Acceptability of Core Tests. Delete the entire subsection.
Subsection:	615.12 Inspection.
Revision:	Add the following sentences to the end of the subsection: Units will arrive at jobsite with the "Kentucky Oval" stamped on the unit which is an indication of acceptable inspection at the production facility. Units shall be inspected upon arrival for any evidence of damage resulting from transport to the jobsite.

Subsection:	716.02.02 Paint.									
Revision:	Replace sentence with the following: Conform to Section 821.									
Subsection:	716.03 CONSTRUCTION.									
Revision:	Replac	Replace bullet 5) with the following: 5) AASHTO Standard Specifications for Structural								
	Suppo	rts for H	Highway S	Signs, 1	Luminair	es, and T	raffic Sig	gnals, 20)13-6th E	Edition with current
	interin	nterims,								
Subsection:	716.03	3.02 Lig	hting Star	ndard l	Installatio	on.				
Revision:	Replac	ce the se	cond sen	tence v	with the f	ollowing	:			
	Regard	dless of	the statio	n and o	offset not	ed, locate	e all pole	s/bases	behind th	ne guardrail a
	minim	num of f	our feet f	rom th	e front fa	ce of the	guardrai	to the f	ront face	of the pole base.
Subsection:	716.03	3.02 Lig	hting Star	ndard l	Installatio	on.				
Part:	1 1		nal Install							
Revision:	Replac	ce the th	ird senter	nce wit	th the foll	lowing: C	Orient the	transfo	rmer base	e so the door is
	-		the side a				ffic.			
Subsection:			hting Star		Installatio	on.				
Part:	A) Co	nventio	nal Install	ation.						
Number:		-	Installation		_					
Revision:	_	Replace the first sentence with the following: For breakaway supports, conform to Section 12								
		of the AASHTO Standard Specifications for Structural Supports for Highway Signs,								
		Luminaires, and Traffic Signals, 2013-6th Edition with current interims.								
Subsection:		716.03.02 Lighting Standard Installation.								
Part:	_	B) High Mast Installation								
Revision:	-	Replace the first sentence with the following: Install each high mast pole as noted on plans.								
Subsection:	716.03.02 Lighting Standard Installation.									
Part:	B) High Mast Installation									
Number:	1 1		ase Instal			_				
Revision:	Modification of Chart and succeeding paragraphs within this section:									
	Ī	Drilled	Shaft Dept	h Data]
				3:1	Ground	1	round	1	Ground	1
			Ground		lope		ope		pe ⁽²⁾	-
		Soil	Rock	Soil	Rock	Soil	Rock	Soil (1)	Rock	-
		17 ft	7 ft	19 ft	7 ft	20 ft	7 ft	(4)	7 ft	J
			equiremen	its	Tion	or Spiral				
	Vertical Bars Ties or Spiral Spacing or									
		Size	Total	<u> </u>	Size	Pitc	- 1			
		#10	16		#4	12 in	ch			
I	I	I								

- (1): Shaft length is 22' for cohesive soil only. For cohesionless soil, contact geotechnical branch for design.
- (2): Do not construct high mast drilled shafts on ground slopes steeper than 1.5:1 without the approval of the Division of Traffic.

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

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

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

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

The reinforcement and anchor bolts shall be adequately supported in the proper positions so no movement occurs during concrete placement. Welding of anchor bolts to the reinforcing cage is unacceptable, templates shall be used.

Exposed portions of the foundation shall be formed to create a smooth finished surface. All forming shall be removed upon completion of foundation construction.

Subsection:

716.03.03 Trenching.

Part:

A) Trenching of Conduit for Highmast Ducted Cables.

Revision:

Add the following after the first sentence: If depths greater than 24 inches are necessary, obtain the Engineer's approval and maintain the required conduit depths coming into the junction boxes. No payment for additional junction boxes for greater depths will be allowed.

Subsection:

716.03.03 Trenching.

Part:

B) Trenching of Conduit for Non-Highmast Cables.

Revision:

Add the following after the second sentence: If depths greater than 24 inches are necessary for either situation listed previously, obtain the Engineer's approval and maintain the required conduit depths coming into the junction boxes. No payment for additional junction boxes for greater depths will be allowed.

Subsection:

716.03.10 Junction Boxes.

Revision:

Replace subsection title with the following: Electrical Junction Box.

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Subsection:	716.04.07 Pole with Secondary Control Equipment. Replace the paragraph with the following:								
Revision:									
	The Department will measure the quantity as each individual unit furnished and installed. The								
	Department will not measure mounting the cabinet to the pole, backfilling, restoration, any								
	necessary hardware to anchor pole, or electrical inspection fees, and will consider them								
	incidental to this item of work. The Department will also not measure furnishing and installing								
	lectrical service conductors, specified conduits, meter base, transformer, service panel, fused utout, fuses, lighting arrestors, photoelectrical control, circuit breaker, contactor, manual								
	witch, ground rods, and ground wires and will consider them incidental to this item of work.								
	when, ground rous, and ground wires and will consider them incidental to this item of work.								
Subsection:	716.04.08 Lighting Control Equipment.								
Revision:	Replace the paragraph with the following:								
	The Department will measure the quantity as each individual unit furnished and installed. The								
	Department will not measure constructing the concrete base, excavation, backfilling,								
	restoration, any necessary anchors, or electrical inspection fees, and will consider them								
	incidental to this item of work. The Department will also not measure furnishing and installing								
	electrical service conductors, specified conduits, meter base, transformer, service panel, fused								
	cutout, fuses, lighting arrestors, photoelectrical control, circuit breakers, contactor, manual								
	switch, ground rods, and ground wires and will consider them incidental to this item of work.								
Subsection:	716.04.09 Luminaire.								
Revision:	Replace the first sentence with the following:								
	The Department will measure the quantity as each individual unit furnished and installed.								
Subsection:	716.04.10 Fused Connector Kits.								
Revision:	Replace the first sentence with the following:								
	The Department will measure the quantity as each individual unit furnished and installed.								
Subsection:	716.04.13 Junction Box.								
Revision:	Replace the subsection title with the following: Electrical Junction Box Type Various.								
Subsection:	716.04.13 Junction Box.								
Part:	A) Junction Electrical.								
Revision:	Rename A) Junction Electrical to the following: A) Electrical Junction Box.								
Subsection:	716.04.14 Trenching and Backfilling.								
Revision:	Replace the second sentence with the following: The Department will not measure excavation,								
	backfilling, underground utility warning tape (if required), the restoration of disturbed areas to								
G. 1	original condition, and will consider them incidental to this item of work.								
Subsection:	716.04.18 Remove Lighting.								
Revision:	Replace the paragraph with the following: The Department will measure the quantity as a lump								
	sum for the removal of lighting equipment. The Department will not measure the disposal of								
	all equipment and materials off the project by the contractor. The Department also will not								
	measure the transportation of the materials and will consider them incidental to this item of								
	work.								

Subsection:	716.04.20 Bore and Jack Conduit.								
Revision:	Replace the paragraph with the following: The Department will measure the quantity in linear								
	feet. This item shall include all work necessary for boring and installing conduit under an								
	existing roadway. Con	struction methods shall be in accordance with Sections 706.03.02,							
	paragraphs 1, 2, and 4.								
Subsection:	716.05 PAYMENT.								
Revision:	Replace items 04810-0	Replace items 04810-04811, 20391NS835 and, 20392NS835 under Code, Pay Item, and Pay							
	<u>Unit</u> with the following	o: o:							
	Code Pay 1	tem Pay Unit							
	04810 Elect	rical Junction Box Each							
	04811 Elect	rical Junction Box Type B Each							
	20391NS835 Elect	rical Junction Box Type A Each							
	20391NS835 Elect	rical Junction Box Type C Each							
Subsection:	723.03 CONSTRUCT	ION.							
Revision:	Replace bullet 5) with	the following: 5) AASHTO Standard Specifications for Structural							
	Supports for Highway	Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current							
	interims,								
Subsection:	723.02.02 Paint.								
Revision:	Replace sentence with	the following: Conform to Section 821.							
Subsection:	723.03.02 Poles and Bases Installation.								
Revision:	Replace the first senter	Replace the first sentence with the following:							
	Regardless of the static	on and offset noted, locate all poles/bases behind the guardrail a							
	minimum of four feet	from the front face of the guardrail to the front face of the pole base.							
Subsection:	723.03.02 Poles and B	ases Installation.							
Part:	A) Steel Strain and Ma	starm Poles Installation							
Revision:	Replace the second par	agraph with the following: For concrete base installation, see Section							
		graphs 2-7. Drilled shaft depth shall be based on the soil conditions							
	encountered during dri	encountered during drilling and slope condition at the site. Refer to the design chart below:							
Subsection:	723.03.02 Poles and Bases Installation.								
Part:	B) Pedestal or Pedesta								
Revision:	Replace the fourth sentence of the paragraph with the following: For breakaway supports,								
120 (252022)	*	of the AASHTO Standard Specifications for Structural Supports for							
	Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.								
Subsection:	723.03.03 Trenching.	,							
Part:	A) Under Roadway.								
Revision:	•	r the second sentence: If depths greater than 24 inches are necessary,							
	_	pproval and maintain ether required conduit depths coming into the							
		yment for additional junction boxes for greater depths will be allowed.							
	,	, J							
L									

F					
Subsection:	723.03.11 Wiring Installation.				
Revision:	Add the following sentence between the fifth and sixth sentences: Provide an extra two feet of				
	loop wire and lead-in past the installed conduit in poles, pedestals, and junction boxes.				
Subsection:	723.03.12 Loop Installation.				
Revision:	Replace the fifth sentence with the following: Provide an extra two feet of loop wire and lead-				
	in past the installed conduit in poles, pedestals, and junction boxes.				
Subsection:	723.04.02 Junction Box.				
Revision:	Replace subsection title with the following: Electrical Junction Box Type.				
Subsection:	723.04.03 Trenching and Backfilling.				
Revision:	Replace the second sentence with the following: The Department will not measure excavation,				
	backfilling, underground utility warning tape (if required), the restoration of disturbed areas to				
	original condition, and will consider them incidental to this item of work.				
Subsection:	723.04.10 Signal Pedestal.				
Revision:	Replace the second sentence with the following: The Department will not measure excavation,				
	concrete, reinforcing steel, specified conduits, fittings, ground rod, ground wire, backfilling,				
	restoring disturbed areas, or other necessary hardware and will consider them incidental to this				
	item of work.				
Subsection:	723.04.15 Loop Saw Slot and Fill.				
Revision:	Replace the second sentence with the following: The Department will not measure sawing,				
	cleaning and filling induction loop saw slot, loop sealant, backer rod, and grout and will				
	consider them incidental to this item of work.				
Subsection:	723.04.16 Pedestrian Detector.				
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each				
	individual unit furnished, installed and connected to pole/pedestal. The Department will not				
	measure installing R10-3e (with arrow) sign, furnishing and installing mounting hardware for				
	sign and will consider them incidental to this item of work.				
Subsection:	723.04.18 Signal Controller- Type 170.				
Revision:	Replace the second sentence with the following: The Department will not measure constructing				
	the concrete base or mounting the cabinet to the pole, connecting the signal and detectors,				
	excavation, backfilling, restoration, any necessary pole mounting hardware, electric service, or				
	electrical inspection fees and will consider them incidental to this item of work. The				
	Department will also not measure furnishing and connecting the induction of loop amplifiers,				
	pedestrian isolators, load switches, model 400 modem card; furnishing and installing electrical				
	service conductors, specified conduits, anchors, meter base, fused cutout, fuses, ground rods,				
	ground wires and will consider them incidental to this item of work.				
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Subsection:	723.04.20 Install Signal Controller - Type 170.					
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each					
	individual unit installed. The Department will not measure constructing the concrete base or					
	mounting the cabinet to the pole, connecting the signal and detectors, and excavation,					
	backfilling, restoration, any necessary pole mounting hardware, electric service, or electrical					
	inspection fees and will consider them incidental to this item of work. The Department will					
	also not measure connecting the induction loop amplifiers, pedestrian, isolators, load switches,					
	model 400 modem card; furnishing and installing electrical service conductors, specified					
	conduits, anchors, meter base, fused cutout, fuses, ground rods, ground wires and will consider					
	them incidental to this item of work.					
Subsection:	723.04.22 Remove Signal Equipment.					
Revision:	Replace the paragraph with the following: The Department will measure the quantity as a lump					
	sum removal of signal equipment. The Department will not measure the return of control					
	equipment and signal heads to the Department of Highways as directed by the District Traffic					
	Engineer. The Department also will not measure the transportation of materials of the disposal					
	of all other equipment and materials off the project by the contractor and will consider them					
	incidental to this item of work.					
Subsection:	723.04.28 Install Pedestrian Detector Audible.					
Revision:	Replace the second sentence with the following: The Department will not measure installing					
	sign R10-3e (with arrow) and will consider it incidental to this item of work.					
Subsection:	723.04.29 Audible Pedestrian Detector.					
Revision:	Replace the second sentence with the following: The Department will not measure furnishing					
	and installing the sign R10-3e (with arrow) and will consider it incidental to this item of work.					
Subsection:	723.04.30 Bore and Jack Conduit.					
Revision:	Replace the paragraph with the following: The Department will measure the quantity in linear					
	feet. This item shall include all work necessary for boring and installing conduit under an					
	existing roadway. Construction methods shall be in accordance with Sections 706.03.02,					
	paragraphs 1, 2, and 4.					
Subsection:	723.04.31 Install Pedestrian Detector.					
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each					
	individual unit installed and connected to pole/pedestal. The Department will not measure					
	installing sign R 10-3e (with arrow) and will consider it incidental to this item of work.					
	702.04.20 L + 11.14 + 4 - 12.1					
Subsection:	723.04.32 Install Mast Arm Pole.					
Revision:	Replace the second sentence with the following: The Department will not measure arms, signal					
	mounting brackets, anchor bolts, or any other necessary hardware and will consider them					
Carlago -42	incidental to this item of work.					
Subsection:	723.04.33 Pedestal Post.					
Revision:	Replace the second sentence with the following: The Department will not measure excavation,					
	concrete, reinforcing steel, anchor bolts, conduit, fittings, ground rod, ground wire, backfilling,					
	restoration, or any other necessary hardware and will consider them incidental to this item of					
	work.					

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Subsection:	723.04.36 Traffic Signal Pole Base.				
Revision:	Replace the second sentence with the following: The Department will not measure excavation,				
	reinforcing steel, anchor bolts, specified conduits, ground rods, ground wires, backfilling, or				
		consider them incidental to this	item of work.		
Subsection:	723.04.37 Install Sig				
Revision:	Replace the second sentence with the following: The Department will not measure excavation,				
	concrete, reinforcing steel, anchor bolts, specified conduits, fittings, ground rod, ground wire,				
	backfilling, restoration, or any other necessary hardware and will consider them incidental to				
	this item of work.				
Subsection:	723.04.38 Install Pedestal Post.				
Revision:	Replace the second sentence with the following: The Department will not measure excavation,				
		_	onduits, fittings, ground rod, ground wire,		
	backfilling, restoration, or any other necessary hardware and will consider them incidental to				
	this item of work.				
Subsection:	723.05 PAYMENT.				
Revision:	Replace items 04810-04811, 20391NS835 and, 20392NS835 under <u>Code</u> , <u>Pay Item</u> , and <u>Pay</u>				
	<u>Unit</u> with the following:				
		ny Item	Pay Unit		
		ectrical Junction Box	Each		
		ectrical Junction Box Type B	Each		
		ectrical Junction Box Type A	Each		
		ectrical Junction Box Type C	Each		
Subsection:	813.04 Gray Iron Ca	9			
Revision:	Replace the reference to "AASHTO M105" with "ASTM A48".				
Subsection:	813.09.02 High Strength Steel Bolts, Nuts, and Washers.				
Number:	A) Bolts.				
Revision:	Delete first paragraph and "Hardness Number" Table. Replace with the following:				
	A) Bolts. Conform to ASTM A325 (AASHTO M164) or ASTM A490 (AASHTO 253) as				
	applicable.				
Subsection:	814.04.02 Timber Guardrail Posts.				
Revision:	Third paragraph, replace the reference to "AWPA C14" with "AWPA U1, Section B, Paragraph				
	4.1".				
Subsection:	814.04.02 Timber Guardrail Posts.				
Revision:	Replace the first sentence of the fourth paragraph with the following:				
		ies of wood for round or square p	posts covered under AWPA U1.		
Subsection:	814.04.02 Timber Guardrail Posts.				
Revision:	Fourth paragraph, replace the reference to "AWPA C2" with "AWPA U1, Section B, Paragraph				
	4.1".				
Subsection:	814.04.02 Timber Guardrail Posts.				
Revision:	Delete the second sentence of the fourth paragraph.				
Subsection:	816.07.02 Wood Posts and Braces.				
Revision:	First paragraph, replace the reference to "AWPA C5" with "AWPA U1, Section B, Paragraph				
	4.1".				

Subsection:	816.07.02 Wood Posts and Braces.			
Revision:	Delete the second sentence of the first paragraph.			
Subsection:	818.07 Preservative Treatment.			
Revision:	First paragraph, replace all references to "AWPA C14" with "AWPA U1, Section A".			
Subsection:	834.14 LIGHTING POLES.			
Revision:	Replace the first sentence with the following: Lighting pole design shall be in accordance w			
	loading and allowable stress requirements of the AASHTO Standard Specifications for			
	Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with			
	current interims.			
Subsection:	834.14.03 High Mast Poles.			
Revision:	*Remove the second and fourth sentence from the first paragraph.			
	*Replace the third paragraph with the following: Provide calculations and drawings that are			
	stamped by a Professional Engineer licensed in the Commonwealth of Kentucky. *Replace paragraph six with the following: Provide a pole section that conforms to ASTM A 595 grade A with a minimum yield strength of 55 KSI or ASTM A 572 with a minimum yield			
	strength of 55 KSI. Use tubes that are round or 16 sided with a four inch corner radius, have a			
	constant linear taper of .144 in/ft and contain only one longitudinal seam weld.			
	Circumferential welded tube butt splices and laminated tubes are not permitted. Provide pole			
	sections that are telescopically slip fit assembled in the field to facilitate inspection of interior			
	surface welds and the protective coating. The minimum length of the telescopic slip splices			
	shall be 1.5 times the inside diameter of the exposed end of the female section. Use			
	longitudinal seam welds as commended in Section 5.15 of the AASHTO 2013 Specifications.			
	The thickness of the transverse base shall not be less than 2 inches. Plates shall be integrally			
	welded to the tubes with a telescopic welded joint or a full penetration groove weld with			
	backup bar.			
	The handhole cover shall be removable from the handhole frame. One the frame side opposite			
	the hinge, provide a mechanism on the handhole cover/frame to place the Department's			
	standard padlock as specified in Section 834.25. The handhole frame shall have two stainless			
	studs installed opposite the hinge to secure the handhole cover to the frame which includes			
	providing stainless steel wing nuts and washers. The handhole cover shall be manufactured			
	from 0.25 inch thick galvanized steel (ASTM A 153) and have a neoprene rubber gasket that is			
	permanently secured to the handhole frame to insure weather-tight protection. The hinge shall			
	be manufactured from 7-guage stainless steel to provide adjustability to insure weather-tight fit			
	for the cover. The minimum clear distance between the transverse plate and the			
	bottom opening of the handhole shall not be less than the diameter of the bottom tube of the			
	pole but needs to be at least 15 inches. The handhole frame width shall be 0.4 times the			
	diameter of the bottom tube.			
	Provide products that are hot-dip galvanized to the requirements of either ASTM A123			
	(fabricated products) or ASTM A 153 (hardware items).			
	(F,, F, (F,).			
Subsection:	834.16 ANCHOR BOLTS.			
Revision:	Insert the following sentence at the beginning of the paragraph: The anchor bolt design shall			
ixevisiuii.	follow the NCHRP Report 494 Section 2.4 and NCHRP 469 Appendix A Specifications.			
	ponow the NCTIKE Report 494 Section 2.4 and NCTIKE 409 Appendix A Specifications.			

Subsection:	834.17.01 Conventional.				
Revision:	Add the following sentence after the second sentence: Provide a waterproof sticker mounted on				
Tito vision.	the bottom of the housing that is legible from the ground and indicates the wattage of the				
	fixture by providing the fist to numbers of the wattage.				
Subsection:	834.21.01 Waterproof Enclosures.				
Revision:	*Add the following sentence in the second paragraph in the thirteenth sentence: Provide a				
	cabinet door with a louvered air vent, Filter-retaining brackets and an easy clean metal filter.				
	*Replace sentence sixteen with the following: Use a 120-volt fixture and utilize a compact				
	fluorescent or L.E.D. bulb (equivalent to 60 watt minimum).				
Subsection:	835.07 Traffic Poles.				
Revision:	Replace the first sentence of the first paragraph with the following: Pole diameter and wall				
	thickness shall be calculated in accordance with the AASHTO Standard Specifications for				
	Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with				
	current interims.				
Subsection:	835.07 Traffic Poles.				
Revision:	*Replace the first sentence of the fourth paragraph with the following: Ensure transverse plats				
	have a thickness ≥ 2 inches.				
	*Add the following sentence to the end of the fourth paragraph: The bottom pole diameter				
	shall not be less than 16.25 inches.				
Subsection:	835.07 Traffic Poles.				
Revision:	Replace the second sentence of the fifth paragraph with the following: For anchor bolt design,				
	pole forces shall be positioned in such a manner to maximize the force on any individual				
	anchor bolt regardless of the actual anchor bolt orientation with the pole.				
Subsection:	835.07 Traffic Poles.				
Revision:	Replace the first and second sentence of the sixth paragraph with the following: The pole				
	handhole shall be 25 inches by 6.5 inches. The handhole cover shall be removable from the				
	handhole frame. On the frame side opposite the hinge, provide a mechanism on the handhole				
	cover/frame to place the Department's standard padlock as specified in Section 834.25. The				
	handhole frame shall have two stainless studs installed opposite the hinge to secure the handhole cover to the frame which includes providing stainless steel wing nuts and washers.				
	The handhole cover shall be manufactured from 0.25 inch thick galvanized steel (ASTM 153)				
	and have a neoprene rubber gasket that is permanently secured to the handhole frame to insure				
	weather-tight protection. The hinge shall be manufactured from 7 gauge stainless steel to				
	provide adjustability to insure a weather-tight fit for the cover. The minimum clear distance				
	between the transverse plate and the bottom opening of the handhole shall not be less than the				
	diameter of the bottom tube but needs to be at least 12 inches.				
Cubaati					
Subsection: Revision:	835.07 Traffic Poles. *Poplage the first centence of the last paragraph with the following: Provide calculations and				
Kevision:	*Replace the first sentence of the last paragraph with the following: Provide calculations and drawings that are stamped by a Professional Engineer licensed in the Commonwealth of				
	Kentucky.				
	*Replace the third sentence of the last paragraph with the following: All tables referenced in 835.07 are found in the AASHTO Standard Specifications for Structural Supports for Highway				
	Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.				
	prigner, Dammanices, and Traine Dignates, 2013-0th Edition with Cultert literalis.				

Subsection:	835.07.01 Steel Strain Poles.			
Revision:	Replace the second sentence of the second paragraph with the following:			
	The detailed analysis shall be certified by a Professional Engineer licensed in the			
	Commonwealth of Kentucky.			
Subsection:	835.07.01 Steel Strain Poles.			
Revision:	Replace number 7. after the second paragraph with the following: 7. Fatigue calculations			
	should be shown for all fatigue related connections. Provide the corresponding detail, stress			
	category and example from table 11.9.3.1-1.			
Subsection:	835.07.02 Mast Arm Poles.			
Revision:	Replace the second sentence of the fourth paragraph with the following: The detailed analysis			
	shall be certified by a Professional Engineer licensed in the Commonwealth of Kentucky.			
Subsection:	835.07.02 Mast Arm Poles.			
Revision:	Replace number 7) after the fourth paragraph with the following: 7) Fatigue calculations			
	should be shown for all fatigue related connections. Provide the corresponding detail, stress			
	category and example from table 11.9.3.1-1.			
Subsection:	835.07.03 ANCHORS.			
Revision:	Add the following to the end of the paragraph: There shall be two steel templates (one can be			
	used for the headed part of the anchor bolt when designed in this manner) provided per pole.			
	Templates shall be contained within a 26.5 inch diameter. All templates shall be fully			
	galvanized (ASTM A 153).			
Subsection:	835.16.05 Optical Units.			
Revision:	Replace the 3rd paragraph with the following:			
	The list of certified products can be found on the following website: http://www.intertek.com.			
Subsection:	835.19.01 Pedestrian Detector Body.			
Revision:	Replace the first sentence with the following: Provide a four holed pole mounted aluminum			
	rectangular housing that is a compatible with the pedestrian detector.			