ERRATA SHEET FOR STANDARD SPECIFICATION BOOK FOR STATE ROAD AND BRIDGE CONSTRUCTION, EDITION 2015

SECTION 101
DEFINITIONS AND TERMS

Page 100-4, subsection 101.3. Add the following:

ELECTRONIC DESIGN FILES - One or more of the following files that KDOT furnishes to the Contractor in electronic form:

- Base file (plan view of entire project length);
- Cross Section Stack files (vertical layout of cross sections);
- Existing Ground Survey (existing ground contours in three-dimensions);
- Cross Section Sheet Files (final cross section sheets)
- Vertical Alignment description files
- Existing & Proposed Horizontal Alignment description files
- Cross Section Report files
- Superelevation description files
- Existing and Proposed Three-Dimensional Surfaces
- Three-Dimensional Line String File

These files are not considered Contract Documents or Exploratory Work Documents.

Page 100-6, subsection 101.3. Delete the definition for PART V, and replace with the following:
Part V (2018 version) of the KDOT Construction Manual which primarily refers to materials and tests for materials used in the project. Part V (2018 version) is a Contract Document.

SECTION 102
BIDDING REQUIREMENTS AND CONDITIONS

Page 100-9, SECTION 102, change "EBS" to "EBSX" throughout, and change "Expedite" to "Project Bids" throughout.

Page 100-9, subsection 102.2b. Delete subsections 102.2b. E., G. and H. and replace with the following:

E. Bridge Repair: Bridge Repair, Area Prepared for Patching, Multi-Layer Polymer Overlay, Slurry Polymer Concrete Overlay, Polymer Overlay Repair, Bridge Expansion Devices.
G. Retaining Wall Systems: MBW and MSEW Precast Panels.
H. Retaining Walls: Cast-in-place and Landscape Retaining Wall Systems (less than 6 feet high).

Add subsection 102.2b.Z.:

Z. Stabilized Subgrades and Base Courses: Less than 20,000 SQYD. Subgrade Modification, Lime Treated Subgrade, Cement or Fly Ash Treated Subgrade, Crushed Stone Subgrade, Aggregate Base, Cement Treated Base, Granular Base.

SECTION 105
CONTROL OF WORK

Page 100-42, subsection 105.9, and the following:

e. Timely Submittal. Provide subcontractor approval forms to the Field Engineer at least 5 business days prior to subcontractor starting work. If the Contractor desires the subcontractor approval forms to be reviewed in less than 5 business days, notify the Field Engineer that the time for review and approval is critical. While KDOT

will attempt to accommodate the Contractor's time frame, KDOT makes no guarantee that KDOT will complete the review process in less than 5 business days.

f. Timely Review. Within 5 business days after the Contractor has provided subcontractor approval forms to the Field Engineer, the Field Engineer will review and either approve or reject the subcontractor approval forms. If rejected, correct and resubmit revised subcontractor approval forms for the Engineer's approval. Allow the Field Engineer a reasonable time (or "at least 5 business days") for subsequent review and approval. The Contractor assumes all risk of delay incurred for revisions and the Engineer's review of these revisions.

SECTION 109
MEASUREMENT AND PAYMENT

Page 100-76, subsection 109.1e.(3), delete the third bullet and replace with the following:

- Check scales and record results a minimum of 2 times per week. In checking scales, use a roller, motorgrader, or loaded truck and weigh on 2 different scales in the same vicinity. The difference in the 2 scales must not exceed 0.50%. If the difference exceeds 0.50%, recertify the scales according to **subsection 152.2**;

Page 100-79, delete subsection 109.3d.(1) and replace with the following:

(1) Before beginning the force account work, provide equipment information so that equipment may be identified in the Rental Rate Blue Book for Construction Equipment (Blue Book). If equipment is rented, provide documented rental rates. The rate to be paid will be the monthly rate set forth in the Blue Book. The Blue Book rate is calculated by dividing the monthly rate for the equipment by 176 and adjusting that rate by Blue Book age and regional adjustment factors before adding in the Blue Book estimated hourly operating cost. The hourly operating cost includes costs for repairs, fuel, and lubricants used or consumed in the force account work.

SECTION 152
HAULING AND WEIGHING EQUIPMENT

Page 150-4, subsection 152.2, second paragraph:

- The weighing devices shall be accurate to within 0.50% throughout the range of use.

SECTION 155
ASPHALT SURFACING AND ASPHALT RECYCLING EQUIPMENT

Page 150-14, delete subsection 155.6b.(2)(b) and replace with the following:

(b) Reclaimed Asphalt Pavement (RAP) Material Conveyor. If the plant is used for recycling, a dual weighing system is required to control delivery of virgin aggregate and RAP material to the drum. Equip the system with interlocking mechanisms that shall accurately deliver virgin aggregates and RAP material in proper proportions. Belt scales for the RAP material shall comply with **subsection 155.6b.(2)**.

SECTION 501
PORTLAND CEMENT CONCRETE PAVEMENT

Page 500-4, subsection 501.3, delete third line and replace with the following:

Reinforcing Steel .....**DIV 1600/SEC 711**

SECTION 502
PORTLAND CEMENT CONCRETE PAVEMENT

Page 500-23, subsection 502.3, delete third line and replace with the following:

Reinforcing Steel .....**DIV 1600/SEC 711**

SECTION 601
ASPHALT APPLICATION TEMPERATURES

Page 600-1, subsection 601.1, delete TABLE 601-1 and replace with the following:

TABLE 601-1: ASPHALT APPLICATION TEMPERATURES

TYPE AND GRADE	TEMPERATURE RANGE (°F)			
	Spraying		Plant Mixing	
	Min.	Max.	Min.	Max.
Asphalt Binder	275	340	*	*
Cutback Asphalt, MC 30	88	125	88	125
Cutback Asphalt, MC & RC 70 &250	125	200	125	200
Cutback Asphalt, MC & RC 800 & 3000	150	250	150	250
Asphalt Rejuvenating Agent, ARA	70	150	70	150
Emulsified Asphalt, CRS-1H, RS-1H, SS-1HP, CMS-1, MS-1, HFMS-1, RS-1HP, CRS-1HP	100	180	100	180
Emulsified Asphalt, SS-1H, CSS-1H	None	150	None	150
Emulsified Asphalt, CSS-1HM, CSS-Special	None	120	None	120
EBL	120	180	NA	NA

* Use the Producer's recommended mixing temperature range.

SECTION 605
SURFACE RECYCLED ASPHALT CONSTRUCTION

Page 600-43, delete subsection 605.3e.(2) and replace with the following:

(2) Operation Number 2. Use an asphalt paver equipped with automatic grade control to spread and finish the amount specified of the new asphalt surface material. **SECTIONS 601** and **602** apply. If a HMA overlay is included in the contract, place the HMA and surface recycle concurrently without remixing or blending the two.

SECTION 608
CHIP SEALS

Page 600-50, subsection 608.3e., delete the first paragraph and replace with the following:

Immediately following the application of the asphalt material, spread cover material with a self-propelled aggregate spreader in quantities designated in the Contract Documents. Operate the aggregate spreader and haul trucks delivering material to the spreader at a speed less than or equal to 5 miles per hour. The tires of the trucks or aggregate spreaders shall not come in contact with the fresh asphalt material at any time.

Page 600-50, subsection 608.3f., delete TABLE 608-1 and replace with the following:

TABLE 608-1: RATES OF APPLICATION FOR CHIP SEAL

Type	Composition	Aggregate Cu. Yd./Mile 24 foot width*	Asphalt Material Gal/Sq. Yd. Residue*	Asphalt Type**
CM-A	Sand-Gravel	105	0.20	CRS-1H/CRS-1HP
CM-B	Sand-Gravel	135	0.23	CRS-1H/CRS-1HP
CM-D	Crushed Sandstone	145	0.27	CRS-1H/CRS-1HP or RS-1H/RS-1HP
CM-K	Limestone	140	0.24	RS-1H/RS-1HP
CM-L-1	Lightweight	85	0.17	CRS-1H/CRS-1HP
CM-L-2	Lightweight	115	0.26	CRS-1H/CRS-1HP
CM-L-3	Lightweight	150	0.30	CRS-1H/CRS-1HP

*Rates shown are estimated and will be adjusted to comply with actual field conditions.

** The required asphalt type will be listed in the contract. Asphalt type may be changed with approval of the DME.

SECTION 615
SAW AND SEAL JOINTS (HMA OVERLAY)

Page 600-92, subsection 615.3b., delete the third paragraph and replace with the following:
Configure the joints according to **FIGURE 615-1 or 615-2** within 1 inch horizontally above the existing joint.

SECTION 703
DRILLED SHAFTS

Page 700-11, subsection 703.3f., delete from Method C to end of 703.3f. and replace with the following:

Method C (Figure 3): Use a tremie tube, with a sealed gate separating ground water and concrete, to place concrete in the shaft. Fully charge the tremie tube and hopper, then raise the tremie tube by 1 tremie diameter and seal the discharge end of the tremie tube with the fresh concrete.

(3) For both Dry and Wet Pours. When the concrete reaches the top of the shaft, continue placing concrete (over-pump) to expel any excess water, debris or unsound concrete. If the casing extends above the planned shaft elevation the excess material must be expelled by providing an outlet in the casing above the planned elevation if the shaft. Do not bail the excess material out of the shaft. On all wet pours, regardless of the method used, the Engineer will make a set of cylinders (in addition to normal concrete cylinder sampling requirements) from the top of the shaft after completing over-pumping. This set of cylinders will be used to verify a compressive strength of 1800 psi before proceeding with subsequent substructure (i.e. columns, abutments, etc.) construction.

Prior to constructing the portion of the substructure that attaches to the drilled shaft, thoroughly clean the top of the drilled shaft to facilitate the bond at the cold joint.

SECTION 704
PILING

Page 700-20, subsection 704.4e.(1), delete the 6th bullet and replace with the following:

- Restrike for 20 blows or until the pile penetrates an additional 4 inches, whichever comes first. Record the penetration for every 5 blows. In the event the pile movement is less than ½ inch during the restrike, the restrike may be terminated after 10 blows.

Page 700-20, subsection 704.4e.(2), delete the last bullet and replace with the following:

- The Test Pile is then immediately restruck with the warmed-up hammer for 20 blows or until the pile penetrates an additional 4 inches, whichever comes first. Record the penetration for every 5 blows. In the event the pile movement is less than ½ inch during the restrike, the restrike may be terminated after 10 blows.

SECTION 714
PAINTING STRUCTURAL STEEL

Page 700-68, subsection 714.3e., delete the second paragraph and replace with the following:

Unless noted otherwise in the Contract Documents, use a waterborne acrylic, brown finish coat color equivalent to Federal Standard No. 595a, Color No. 20045.

SECTION 717
BRIDGE OVERLAYS

Page 700-93, subsection 717.3g., third paragraph, second sentence, delete "7-day" and replace with "required".

SECTION 729
MULTI-LAYER POLYMER CONCRETE OVERLAY

Page 700-109, delete subsection 729.3a. and replace with the following:

a. General. Wet cure concrete on new bridge decks for 14 days and allow the deck to dry for 14 days before applying the overlay.

Portland cement concrete patches require a minimum cure period of 14 days before application of the overlay.

SECTION 731
AREA PREPARED FOR PATCHING
(EXISTING CONCRETE BRIDGE DECKS)

Page 700-119, delete subsection 731.3d. and replace with the following:

d. Bridge Decks That Receive a Multi-Layer, Single-Layer or Slurry Polymer Concrete Overlay.

(1) Polymer concrete materials may be used for patching of the concrete bridge deck.

For shallow patches, 3 inches maximum depth, polymer concrete overlay resin and FA-C aggregate, **TABLE 1102-6,** may be used.

For deep patches, greater than 3 inches polymer concrete overlay resin with an approved MA-3 or MA-4 aggregate, **TABLE 1102-3,** may be used.

The slurry polymer concrete system may be used for shallow patching and where a bar is considered bonded by the Engineer, even if less than ½ the bar depth is embedded in concrete (**subsection 731.3a.(2)(a)**).

Mix and cure all patching according to manufacturer/supplier's recommendations.

(2) A Rapid Set Concrete Patching Material, compatible with the overlay may be used for patching the concrete bridge deck.

(3) Strike off patches to a level approximately ¼ inch below the top of the original concrete deck.

SECTION 735
PRECAST REINFORCED CONCRETE BOX

Page 700-125, subsection 735.1, in the DESIGN subsection delete "For fill height less than or equal to 3 feet…" and associated 4 bullets.

SECTION 736
PRECAST CULVERTS

Page 700-130, subsection 736.2f., replace "SCA-5" with "UD-2".

SECTION 802
CONTRACTOR CONSTRUCTION STAKING

Page 800-2, subsection 802.1, add the following bid item:

Sign (Environmental Mitigation) Each

Page 800-2, add subsection 802.2g.:

g. Environmental Mitigation Area Signs. Other miscellaneous materials for the Environmental Mitigation area signs, detailed in the Contract Documents.

- Aluminum sign blanks, **DIVISION 1600**;
- Galvanized U-Posts, 2 lb./ft, **SECTION 1622**;
- Commercially available galvanized 2-inch x 5/16-inch bolts, with 2 flat washers, 1 lock washer and 1 nut per bolt; and

- Other miscellaneous materials for Environmental Mitigation Area Signs detailed in the Contract Documents.

Page 800-7, add subsection 802.3h.

h. Sign (Environmental Mitigation). Install environmental mitigation area signs (including posts) as shown in the Contract Documents.

Page 800-7, add the following to subsection 802.4:

The Engineer will measure each environmental mitigation sign (including post) as a unit.

Payment for "Sign (Environmental Mitigation)" at the contract unit prices is full compensation for the specified work.

SECTION 805
WORK ZONE TRAFFIC CONTROL AND SAFETY

Page 800-21, subsection 805.3k., TABLE 805-4, delete row D ≤ 2 inches and replace with the following:

D ≤ 2 inches	Shoulder Drop-Off signs (W8-17 and W8-17P) are optional, not required.

Page 800-23, subsection 805.4c.(8), add the following to the end of the first paragraph:

The Pavement Marking (Temporary) used for widening and decelerating lanes, accelerating lanes and ramp areas will not be paid for directly, but will be considered subsidiary.

Page 800-23, subsection 805.4d., delete last paragraph and replace with the following:

No payment will be made for each per day traffic control devices while the Contractor is assessed liquidated damages for failure to comply with winter shutdown period or project completion date in other Project Special Provisions included in the Contract Documents. No payment will be made for any additional traffic control devices required due to the contract being in liquidated damages.

SECTION 806
DURABLE PAVEMENT MARKINGS

Page 800-26, subsection 806.3a.(10), delete the first paragraph and replace with the following:

(10) Acceptance of Pavement Marking. The Engineer will not examine pavement marking for final acceptance until the pavement markings complete a 180-calendar day observation period. The Contractor is responsible for the pavement marking during this period. The 180-calendar day observation period begins the day following the completion and acceptance of retroreflectivity readings. Providing all other work on the contract is complete, the Engineer will not assess working day charges during the 180-calendar day observation period.

SECTION 808
REMOVAL OF EXISTING PAVEMENT MARKINGS

Page 800-32, delete subsection 808.3a. and replace with the following:

a. Removal of Existing Stripes and Symbols. Completely remove the existing pavement markings and symbols without damaging the asphalt or concrete pavement surface or longitudinal and transverse joints. Waterblasting will be allowed for removal of markings on asphalt and concrete surfaces on a performance basis.

As the work progresses, remove all material deposited on the pavement as a result of the removal operations. Continuously remove all residue and dust, especially in areas near the traveling public.

When replacement of the removed existing markings is a part of the Contract Documents, follow the manufacturer's requirements for the new pavement markings as to the method of removal of the existing markings, or surface preparation requirements.

SECTION 810
INERTIAL BARRIER SYSTEM

Page 800-35, delete subsection 810.1 and replace with the following:

810.1 DESCRIPTION

Install and relocate inertial barrier systems (IBS) as shown in the Contract Documents. Stockpile the replacement modules at the project site.

BID ITEMS	**UNITS**
Inertial Barrier System (*)	Each
Replacement Modules (IBS)	Each
*Type TL-2 or TL-3	

Page 800-35, subsection 810.4, delete last paragraph and replace with the following:

Payment for "Inertial Barrier System" and "Replacement Modules (IBS)" at the contract unit prices is full compensation for the specified work.

SECTION 811
IMPACT ATTENUATOR

Page 800-36, subsection 811.1, delete the bid items and replace with the following:

BID ITEMS	**UNITS**
Impact Attenuator (*)	Each
*Type (TL-2, TL-3 or Severe Duty)	
Impact Attenuator (Temporary) (**)	Each
Replacement Modules (Impact Attenuator)	Each
**Type (TL-2 or TL-3)	

Page 800-37, subsection 811.4, delete the last paragraph and replace with the following:

Payment for "Impact Attenuator (Temporary)" and "Replacement Modules (Impact Attenuator)" at the contract unit price is full compensation for the specified work.

SECTION 813
RUMBLE STRIPS (MILLED)

Page 800-43, subsection 813.1, delete bid item Rumble Strips (Milled) (*) (Edgeline).

Page 800-43, delete subsection 813.3d.

Page 800-43. subsection 813.4, delete third paragraph.

Page 800-43, subsection 813.4, fifth paragraph, delete "Rumble Strips (Milled) (*) (Edgeline)".

SECTION 814
ELECTRIC LIGHTING SYSTEM AND TRAFFIC SIGNALS

Page 800-44, subsection 814.1, add the following Bid Item:

BID ITEMS	**UNITS**
Flashing Beacon System	Lump Sum

Page 800-47, subsection 814.3 add the following:

q. Flashing Beacon System. Install flashing beacon systems as shown in the Contract Documents.

Page 800-47, add the following to subsection 814.4:

The Engineer will measure flashing beacon system by the lump sum.

The Payment for "Flashing Beacon System" at the contract unit price is full compensation for the specified.

SECTION 816
ADJUSTMENT OF INLETS, MANHOLES AND OTHER EXISTING STRUCTURES

Page 800-50, subsection 816.1, add the following Bid Items:

BID ITEMS	UNITS
Adjustment of Existing Structure	Each
Adjustment of Junction Box	Each
Adjustment of Fire Hydrant	Each

Page 800-50, subsection 816.4, delete the third paragraph and replace with the following:

The Engineer will measure the adjustment of existing structures as shown in the Contract Documents. The Engineer will measure each adjustment of junction box and fire hydrant.

Page 800-50, subsection 816.4, delete the last sentence and replace with the following:

Payment for "Adjustment of Catch Basins", "Adjustment of Curb Inlets", "Adjustment of Manholes", "Structural Steel", "Cast Steel", "Cast Iron" "Adjustment of Meter Box (*)", "Adjustment of Valve Box (*)", "Adjustment of Existing Structures", "Adjustment of Junction Box" and "Adjustment of Fire Hydrant" at the contract unit prices and "Adjustment of Manholes" at the contract set price is full compensation for the specified work.

SECTION 824
CONCRETE SIDEWALKS, STEPS AND RAMPS

Page 800-67, subsection 824.2, delete third material listing and replace with the following:

Masonry Bricks Compliant with PROWAG .....**SECTION 1301**

Page 800-68, subsection 824.3e.(1), change all refences from "Paving Brick(s)" to "Masonry Brick(s)".

SECTION 828
FENCING

Page 800-80, delete subsection 828.3p. and replace with the following:

p. Erection of Single Wire Cable Fence. Construct single wire cable fence as shown in the Contract Documents. Set all required posts as shown in the Contract Documents by driving or drilling and backfilling. Use metal posts.

Page 800-80, delete the second paragraph and replace with the following:

The Engineer will measure single wire cable fence by the linear foot. Line posts are subsidiary to single wire cable fence.

SECTION 833
PAVEMENT PATCHING

Page 800-89, subsection 833.3j., delete the second bullet. Also, delete the fourth bullet and replace with the following:

- If Grade 2 calcium chloride is used, see **subsection 401.3k.(1)**. If the temperature falls below 60°F during the cure period, use ASTM C805, Rebound Number of Hardened Concrete (Schmidt rebound hammer), to determine when the patch can be opened to traffic. The patch may be opened to traffic when the results of the rebound hammer test equal or exceed results obtained on materials previously tested and known to meet the strength requirements, or 60% of the rebound on adjoining pavement.

SECTION 843
FLOWABLE FILL

Page 800-107, subsection 843.2, in TABLE 843-1 change the third column from "1500 psi" to "1500 psi (min)"

SECTION 850
SEPARATION GEOTEXTILE

Page 800-116, subsection 850.2, delete the first sentence and replace with the following:

Provide a woven or non-woven geotextile that complies with **SECTION 1710** and is contained on PQL-48 as a Class 1 geotextile.

SECTION 855
SOLID INTERLOCKING PAVING UNITS (PAVING BRICKS)

Page 800-129, subsection 855.2, change reference to "DIVISION 300" to "SECTION 1304".

SECTION 1106
AGGREGATES FOR GRANULAR BASE

Page 1100-19, subsection 1106.2c.(1). In TABLE 1106-1 for the No. 8 sieve, change “70” to “80”.

SECTION 1108
AGGREGATES FOR COVER MATERIAL

Page 1100-25, subsection 1108.2c.(2). In TABLE 1108-1 for Minimum Gradation Factor, change “4.00” to “3.90”.

SECTION 1113
AGGREGATES FOR SHOULDER CONSTRUCTION

Page 1100-34, subsection 1113.2b., delete the third bullet, and Note 4.

SECTION 1202
PERFORMANCE GRADED ASPHALT BINDER

Page 1200-6, TABLE 1202-1 and subsection 1202.3 replace "ASTM D 5976" with "ASTM D7173".

SECTION 1203
EMULSIFIED ASPHALT

Page 1200-7, delete TABLE 1203-1 and replace with the following:

TABLE 1203-1: SPECIFICATIONS FOR ANIONIC EMULSIFIED ASPHALT

	RS-1H/ RS-1HP		SS-1H		MS-1		SS-1HP	
	Min.	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**
Viscosity, Saybolt Furol								
At 77°F, sec.	-----	-----	10	100	-----	-----	10	75
At 122°F, sec.	75	300	-----	-----	100	400	-----	-----
Residue by Distillation, (% by Mass)……	65	-----	57	-----	65	-----	57	-----
Oil Distillate, (% by Volume). .	-----	-----	-----	-----	-----	8	-----	-----
Storage Stability, %[1]	-----	1	-----	1	-----	1	-----	-----
Demulsibility:								
35 ml of 0.02 N $CaCl_2$, %. .	60	-----	-----	-----	-----	-----	-----	-----
50 ml of 0.1 N $CaCl_2$, %. . .	-----	-----	-----	-----	75	-----	-----	-----
Sieve Test, % Retained.	-----	0.50	-----	0.50	-----	0.50	-----	0.1
Tests on Distillation Residue:								
Penetration, 77°F, 100g, 5 sec.	75	150	75	125	300	-----	75	150
Solubility, %.	97.5[3]	-----	97.5	-----	97.5	-----	-----	-----
Ductility, 77°F, mm.	800	-----	800	-----	-----	-----	-----	-----
Ductility, 39°F, mm	-----	-----	-----	-----	-----	-----	100	350
Elastic Recovery @ 50°F, 20 cm elongation, %	60[2]	-----	-----	-----	-----	-----	25	-----

[1] If the Contractor's storage tanks are equipped with a mechanical propeller type agitation device, and the entire contents of the tank are thoroughly mixed before each day's use, the requirement for satisfactory compliance with the storage stability test will be waived.
[2] RS-1HP only
[3] RS-1H only

Page 1200-8, delete TABLE 1203-2 and replace with the following:

TABLE 1203-2: SPECIFICATIONS FOR CATIONIC EMULSIFIED ASPHALT

	CRS-1H/ CRS-1HP		CSS-1H/ CSS-1HM		CMS-1		CSS-Special	
	Min.	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**
Viscosity, Saybolt-Furol:								
At 77°F, sec.	-----	-----	10	60	-----	-----	----	----
At 122°F, sec.	75	300	-----	-----	100	400	----	----
Residue by Distillation, (% by Mass)……	65	-----	57	-----	65	-----	64.0[1]	66.0[1]
Oil Distillate, (% by Volume).	-----	3	-----	-----	-----	8	----	0.5
Storage Stability, %.	-----	1	-----	1	-----	1	----	----
Sieve Test, % Retained.	-----	0.50	-----	0.50	-----	0.50	----	0.1
Tests on Distillation Residue:								
Penetration, 77ºF, 100g, 5 sec	75	150	50	100	300	-----	-25%[2]	+25%[2]
Solubility, %.	97.5[4]	-----	97.5	-----	97.5	-----	----	----
Ductility, 77°F, mm. . . .	800	-----	800	-----	-----	-----	----	----
Viscosity, Saybolt-Furol, 180°F, sec..	-----	-----	-----	-----	300	700	----	----
Elastic Recovery @50°F, 20 cm elongation, %	60[3]	----	----	----	----	----	----	----

[1] Use modified AASHTO T 59 procedure – distillation temperature of 350°F with a 20-minute hold.
[2]Penetration will be determined by the producer and submitted to the Chief Chemist at the time of prequalification.
[3] CRS-1HP only
[4]CRS-1H/CSS-1H only

SECTION 1206
POLYMER MODIFIED ASPHALT CEMENT FOR CHIP SEALS

Page 1200-12, delete this entire section.

SECTION 1207
WARM MIX ASPHALT ADDITIVES

Page 1200-13, delete subsection 1207.5b. and replace with the following:

b. WMA additives.

(1) Prequalification as specified in **subsection 1207.4**.

(2) Field observation of WMA production.

SECTION 1405
BURLAP

Page 1400-6, delete subsection 1405.5 and replace with the following:

1405.5 BASIS OF ACCEPTANCE

a. New burlap will be accepted on the basis of a visual inspection for compliance with AASHTO M 182.

b. Used burlap will be accepted on the basis of a visual inspection for compliance with AASHTO M 182 and **subsection 1405.2b** above.

SECTION 1502
COLD APPLIED CHEMICALLY CURED JOINT SEALANT

Page 1500-3, delete subsection 1502.4c. and replace with the following:

c. Prequalified List. The Bureau of Construction and Materials will include products complying with **subsection 1502.2** on a prequalified list. Failure of any field installation in less than the anticipated life will be cause for removal of the product from prequalified status. Products removed from prequalified status will be considered for re-qualification if the manufacturer can provide evidence that the cause of failure has been positively identified, and necessary formulation changes and quality control measures have been implemented to eliminate that cause. Even if there is no formulation change, re-prequalify every 3 years by submitting test data that is no more than 3 years old. Complete prequalification under **subsection 1502.4**. is required for products removed from the prequalified list.

SECTION 1509
MEMBRANE SEALANT

Page 1500-15, subsection 1509.2a., delete the first paragraph and replace with the following:

a. Foam Sealant. Provide a foam sealant consisting of an open-cell high density polyurethane foam impregnated with either a polymer modified bitumen or a neoprene rubber suspended in chlorinated hydrocarbons. Precompress the foam sealant prior to packaging. Use a precompressed dimension as recommended by the sealant manufacturer to provide a water tight seal throughout a joint movement range of ±25% (minimum) from the specified joint opening dimension. Provide a foam sealant that is slowly self-expanding to permit workers ample time to install the foam before the foam exceeds the joint opening width. Supply the foam in pieces 5 feet in length or longer. Miter the ends of each piece for ease of joining to the adjacent pieces.

SECTION 1601
STEEL BARS FOR CONCRETE REINFORCEMENT

Page 1600-1, delete subsection 1601.4 and replace with the following:

1601.4 PREQUALIFICATION

a. General. Follow the instructions on the AASHTO National Transportation Product Evaluation Program's (NTPEP) website to participate in the audit program for reinforcing steel mill.

Forward an official copy of the latest NTPEP audit report, including split sample test results, and the plant's quality control plan to the Bureau Chief of Construction and Materials for evaluation. Producing mills that have successfully met the requirements of the audit (including test results that comply with **subsections 1601.2b.** and **1601.5c.**) and are listed on the NTPEP website as compliant will be prequalified.

In order to maintain prequalified status, send a copy of the annual NTPEP certificate of compliance, the "Record of Specimens Tested" sheet from the audit, and the "Variation Report" as soon as it is received. Producing mills that have prequalified using the NTPEP program and are subsequently removed from "compliant" status as shown on the NTPEP website will be removed from prequalified status.

Producing mills that fail to provide the annual documents described above or fail to adhere to the requirements of **subsection 1601.6b.** may be removed from prequalified status.

b. Comparison Testing. The NTPEP's 3rd party yield, tensile, and elongation test results will be compared to the parallel plant data from each heat for variations and differences. These variations and differences may not exceed the values shown in **TABLE 1601-1**, based on the 3rd party values as the reference where applicable.

SECTION 1602
EPOXY COATED STEEL FOR CONCRETE REINFORCEMENT

Page 1600-5, add the following subsection 1602.2a.(3):

(3) See **SECTION 711** for construction requirements and additional storage and handling requirements.

SECTION 1617
WELDED STUD SHEAR CONNECTORS

Page 1600-28, delete subsection 1617.2b., and replace with the following:

b. Material Specifications. The flux requirements for studs applied by the SW process are governed by AWS D1.5. Use steel for the studs that complies with ASTM A 108, Grade Designation 1010 through 1020 (AISI/SAE), and AWS D1.5. The testing of the cold finished steel or the full diameter finished studs (stud manufacturer's option), must comply with the physical property requirements of AWS D1.5, Table 7.1, Type B.

SECTION 1619
STEEL PIPE

Page 1600-31, subsection 1619.5a. (1). Delete the 2nd sentence.

SECTION 1622
STEEL POSTS FOR DELINEATOR MARKERS

Page 1600-37, subsection 1622.1. Delete the first sentence and replace with the following:

This specification governs steel posts intended for the support of delineator markers and Type 2 object markers.

SECTION 1623
STEEL PERMANENT DECK FORMS

Page 1600-38, delete subsection 1623.2b. and replace with the following:

b. Material Specifications. Use forms made from zinc-coated sheet steel that complies with ASTM A 653, structural steel (SS) Grades 33, 37, 40, 50 Class 1 and 55, or high strength low alloy steel (HSLAS) Grades 40 through 80. Provide a zinc-coating (total both sides) that conforms to Coating Designation G210. Although this specification allows for a range of acceptable materials, the specific steel designation, grade, and class (when applicable) will be shown in the Contract Documents. Certain HSLAS require specific welding procedures. If welding of these steels is required, consult the steel producer.

SECTION 1705
EPOXY-RESIN-BASE BONDING SYSTEMS FOR CONCRETE

Page 1700-9, delete subsection 1705.1c.(6) and replace with the following:

(6) Class F – For use above 75°F. The highest allowable temperature is defined by the manufacturer of the product.

SECTION 1717
PRECAST PANEL BEDDING MATERIALS

Page 1700-26, subsection 1717.4, last paragraph, change subsection reference from "1716.2" to "1717.2".

SECTION 1801
INORGANIC ZINC PRIMER FOR STRUCTURAL STEEL

Page 1800-1, delete subsection 1801.3b. and replace with the following:

b. Cyclic Corrosion/UV Exposure ..... ASTM D 5894
(1) Scribe Corrosion ..... ASTM D 1654
(2) Unscribed Area ..... ASTM D 1654

Page 1800-2, delete subsection 1801.4b. and replace with the following:

b. Testing by KDOT may be waived if testing has been performed on the identical product by another state within the past 12 months. Results must satisfy the requirements contained within this specification. Forward a copy of the test report to the Engineer of Tests for evaluation, along with evidence that the product referenced in the test report is identical to that submitted for prequalification.

SECTION 1802
ORGANIC ZINE PRIMER FOR STRUCTURAL STEEL

Page 1800-3, delete subsection 1802.3b. and replace with the following:

b. Cyclic Corrosion/UV Exposure. ..... ASTM D 5894
(1) Scribe Corrosion ..... ASTM D 1654
(2) Unscribed Area ..... ASTM D 1654

Page 1800-4, delete subsection 1802.4b. and replace with the following:

b. Testing by KDOT may be waived if testing has been performed on the identical product by another state within the past 12 months. Results must satisfy the requirements contained within this specification. Forward a copy of the test report to the Engineer of Tests for evaluation, along with evidence that the product referenced in the test report is identical to that submitted for prequalification.

SECTION 1806
WATER-BORNE ACRYLIC FINISH COAT

Page 1800-8, delete subsection 1806.3b. and replace with the following:

b. Cyclic Corrosion /UV Exposure ..... ASTM D 5894
(1) Scribe Corrosion ..... ASTM D 1654.
(2) Unscribed Area ..... ASTM D 1654.

Page 1800-8, delete subsection 1806.4b. and replace with the following:

b. Testing by KDOT may be waived if testing has been performed on the identical product by another state within the past 12 months. Results must satisfy the requirements contained within this specification. Forward a copy of the test report to the Engineer of Tests for evaluation, along with evidence that the product referenced in the test report is identical to that submitted for prequalification.

SECTION 1903
CAST IRON AND DUCTILE IRON PIPE

Page 1900-7, delete subsection 1903.2b. and replace with the following:

b. Material Specifications. Provide components of open systems complying with ASTM A 48 when produced from gray cast iron or ASTM A 536 when produced from ductile cast iron. Accessory items may also be produced from ferritic malleable cast iron in compliance with ASTM A 47. Provide pipe, fittings, and accessory items for sanitary, storm drain, waste, and vent piping applications complying with ASTM A 74. The mechanical property requirements of ASTM A 74 determine the class or grade of cast iron required.

SECTION 2110
MULCH

Page 2100-16, add the following to the end of subsection 2100.2e.:

Other products not meeting the requirements of this subsection may be approved provided it meets the following criteria:

(1) Contain non-toxic tackifiers that, upon drying, become insoluble and non-dispersible to eliminate direct raindrop impact on sol according to ASTM D 7101 and EPA 2021.0-1.

(2) Contain no germination or growth inhibiting factors and do not form a water-resistant crust that can inhibit plant growth.

(3) Contain a minimum 90% organic material (ASTM D 2974).

(4) Have a rainfall event (R-factor) greater than 140 (ASTM D 6459).

(5) Have a cover factor no greater than 0.03 (ASTM D 6459).

(6) Have a minimum Vegetation Establishment of 400% (ASTM D 7322).

(7) Have a minimum Water Holding Capacity of 600% (ASTM D 7367).

SECTION 2114
TEMPORARY SEDIMENT BARRIERS

Page 2100-12, delete subsection 2114.2f. and replace with the following:

f. Filter Sock. Provide burlap or synthetic mesh bags or tubes, coarse aggregate, wood chips, compost or other permeable filler material to slow and filter stormwater runoff. Mesh bags or tubes shall have openings between 1/8" and 3/8" in size. Use only coarse aggregate filler for curb inlet protection unless approved by the Area Engineer. Compost filler shall comply with **TABLE 2114-1**.

TABLE 2114-1: COMPOST FOR FILTER SOCK REQUIREMENTS

Parameter	Range
pH	5.0-8.5
Moisture Content	<60%
Organic Matter Content	>25% of dry weight
Particle Size	99% < 2" 30%-50% < 3/8"

SECTION 2203
ROLL-UP SIGNS

Page 2200-5, subsection 2203.4. Delete the third paragraph and replace with the following:

Testing and evaluation by KDOT may be waived if complete testing has been performed on the identical product by AASHTO National Transportation Product Evaluation Program (NTPEP) within ten years of the KDOT submittal date. Forward an official copy of the test report along with evidence that the product referenced is identical to that submitted for prequalification, to the Engineer of Tests for evaluation.

SECTION 2209
HIGH DURABILITY PAVEMENT MARKING MATERIAL

Page 2200-12, delete subsection 2209.2d. and replace with the following:

d. Adhesion. 22 N, minimum.

SECTION 2210
TEMPORARY PAVEMENT MARKING TAPE

Page 2200-14, subsection 2210.1. First paragraph, delete the second sentence and replace with the following:
This includes both Type I and Type II materials for use on both portland cement concrete and asphalt surfaces.

INDEXING / FORMATTING (Non-Content) CORRECTIONS

INDEX

Page I-1, Biodegradable Log, change page number from "900-27" to "900-7".

Page I-5, Landscape Retaining Wall, change page number from "800-104" to "800-125".

Page I-6, delete Liner Pipe from the Index. Handle by a project special provision.

Page I-6, delete Mobilization (Emergency Erosion Control) (Set Price) from the Index. No longer applicable to 2015 specifications.

Page I-7, Precast Arch Culvert and Precast Rigid Frame Culvert, change page number from "800-57" to "700-129".

Page I-8, Rubblized Concrete, change page number from "800-1001" to "800-101".

Page I-8, delete Shot-crete. No longer a bid item, replaced with Concrete Surface Repair.

Page I-12, BRIDGE CURB REPAIR, change page number from "700-103" to "700-108".

Page I-16, EROSION PIPE, change page number from "800-43" to "800-51".

Page I-22, POLYMER MODIFIED ASPHALT CEMENT FOR CHIP SEALS (Materials), change page number from "700-143" to "1200-12".

Page I-27, UNKNOWN HAZARDOUS MATERIALS, change page number from "100-59" to "100-63".

DIVISION 200
EARTHWORK

Page i, delete Table of Contents title "Stabilized Subgrade, Base and Shoulders" and replace with "Earthwork".

Page i, add "200-" before page numbers.

DIVISION 300
STABILIZED SUBGRADE, BASE AND SHOULDERS

Page i, add "300-" before page numbers.

SECTION 502
PORTLAND CEMENT CONCRETE PAVEMENT (NON-QC/QA)

Page 500-30, subsection 502.3g.(10), change all references with subsection 502.4 to subsection 502.3.

DIVISION 600
FLEXIBLE PAVEMENT

Page i, add "600-" before page numbers.

DIVISION 700
STRUCTURES

Page i, add "700-" before page numbers.

SECTION 737
FIELD ERECTION

Pages 700-132 TO 700-135, delete header "737 – CONTROLLED DEMOLITION" and replace with "737-FIELD ERECTION".

SECTION 850
SEPARATION GEOTEXTILE

Pages 800-116, delete header "850 – GEOMEMBRANE" and replace with "850 – SEPARATION GEOTEXTILE".

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