

**PROJECT SPECIAL PROVISIONS**

**ROADWAY**

**FINAL ACCEPTANCE AND FOURTEEN DAY OBSERVATION PERIOD:**

(7-1-95)

RR 13

Upon completion of construction as shown on each map, a 14 day observation period is required before acceptance. During the 14-day period, warrant the resurfaced area against failure.

No payment will be made for replacing failed pavement, as the cost of it will be considered incidental to the work initially paid for under the various items in the contract.

Completion and final acceptance of the project is contingent upon successful completion of the Observation Period. The observation period will be considered a part of the work required to be completed by the final completion date specified herein.

**PRICE ADJUSTMENT - ASPHALT BINDER FOR PLANT MIX:**

(11-21-00)

RR 19

Price adjustments for asphalt binder for plant mix will be made in accordance with Section 620 of the *Standard Specifications*.

The base price index for asphalt binder for plant mix is \$ **311.79** per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on April 1, 2007.

**INCIDENTAL STONE BASE:**

(7-1-95) (Rev.7-18-06)

RR 28

**Description**

Place incidental stone base on driveways, mailboxes, etc. immediately after paving and do not have the paving operations exceed stone base placement by more than one week without written permission of the Engineer.

**Materials and Construction**

Provide and place incidental stone base in accordance with the requirements of Section 545 of the *Standard Specifications*.

**Measurement and Payment**

*Incidental Stone Base* will be measured and paid for in accordance with Article 545-6 of the *Standard Specifications*.

**ASPHALT PAVEMENTS - SUPERPAVE:**

(7-18-06) (Rev 9-19-06)

RR 31

Revise the *2006 Standard Specifications* as follows:

Page 6-2, Article 600-9 Measurement and Payment

Delete the second paragraph.

Page 6-12, 609-5(C)2(c) add after (AASHTO T 209):

*or ASTM D 2041*

Page 6-13, last line on page & Page 6-14, Subarticle 609-5(C)(2)(e), delete and substitute the following:

(e) Retained Tensile Strength (TSR) - (AASHTO T 283 Modified), add subarticle (1) Option 1 before the first paragraph.

(1) Option 1

Add subarticle (2) Option 2 and the following sentence as the first sentence of the second paragraph:

(2) Option 2

Mix sampled from truck at plant with one set of specimens prepared by the Contractor and then tested jointly by QA and QC at a mutually agreed upon lab site within the first 7 calendar days after beginning production of each new mix design.

Page 6-28, 610-3(A) Mix Design-General, third sentence of the fourth paragraph:

Substitute 20% for 15%

First, second and third sentences of the fifth paragraph:

Substitute 20% for 15%

Page 6-44, 610-8, third full paragraph, replace the first sentence with the following:

Use the 30 foot minimum length mobile grade reference system or the non-contacting laser or sonar type ski *with at least four referencing stations mounted on the paver at a minimum length of 24 feet* to control the longitudinal profile when placing the initial lanes and all adjacent lanes of all layers, including resurfacing and asphalt in-lays, unless otherwise specified or approved.

Page 6-54, Article 620-4, add the following pay item:

<b>Pay Item</b>	<b>Pay Unit</b>
Asphalt Binder for Plant Mix, Grade PG 70-28	Ton

Page 6-69, Table 660-1 **Material Application Rates and Temperatures**, add the following:

Type of Coat	Grade of Asphalt	Asphalt Rate gal/yd <sup>2</sup>	Application Temperature °F	Aggregate Size	Aggregate Rate lb./sq. yd. Total
Sand Seal	CRS-2 or CRS-2P	0.22-0.30	150-175	Blotting Sand	12-15

Page 6-75, 660-9(B), add the following as sub-item (5)

(5) Sand Seal

Place the fully required amount of asphalt material in one application and immediately cover with the seal coat aggregate. Uniformly spread the fully required amount of aggregate in one application and correct all non-uniform areas prior to rolling.

Immediately after the aggregate has been uniformly spread, perform rolling.

When directed, broom excess aggregate material from the surface of the seal coat.

When the sand seal is to be constructed for temporary sealing purposes only and will not be used by traffic, other grades of asphalt material meeting the requirements of Articles 1020-6 and 1020-7 may be used in lieu of the grade of asphalt required by Table 660-1 when approved.

Page 10-41, Table 1012-1, add the following:

Mix Type	Course Aggregate Angularity <sup>(b)</sup> ASTM D5821	Fine Aggregate Angularity % Minimum AASHTO T304 Method A	Sand Equivalent % Minimum AASHTO T176	Flat & Elongated 5:1 Ratio % Maximum ASTM D4791 Section 8.4
S 9.5 D	100/100	45	50	10

Page 10-45, Replace Table 1012-2 with the following:

**TABLE 1012-2**  
**NEW SOURCE RAP GRADATION and BINDER TOLERANCES**  
 (Apply Tolerances to Mix Design Data)

Mix Type	0-20% RAP			21-25% RAP			26%+ RAP		
	Base	Inter.	Surf.	Base	Inter.	Surf.	Base	Inter.	Surf.
P <sub>b</sub> , %		± 0.7%			± 0.4%			± 0.3%	
1 1/2" (37.5)	±10	-	-	±7	-	-	±5	-	-
3/4" (19.0)	±10	±10	-	±7	±7	-	±5	±5	-
1/2" (12.5)	-	±10	±6	-	±7	±3	-	±5	±2
3/8" (9.5)	-	-	±8	-	-	±5	-	-	±4
No. 4 (4.75)	±10	-	±10	±7	-	±7	±5	-	±5
No. 8 (2.36)	±8	±8	±8	±5	±5	±5	±4	±4	±4
No.16 (1.18)	±8	±8	±8	±5	±5	±5	±4	±4	±4
No. 30 (0.600)	±8	±8	±8	±5	±5	±5	±4	±4	±4
No. 50 (0.300)	-	-	±8	-	-	±5	-	-	±4
No. 200 (0.075)	±4	±4	±4	±2	±2	±2	±1.5	±1.5	±1.5

**GLASS BEADS:**

(7-18-06)

RR 35

Revise the *2006 Standard Specifications* as follows:

Page 10-223, 1087-4(C) Gradation & Roundness

Replace the second sentence of the first paragraph with the following:

*All Drop-On and Intermixed Glass Beads shall be tested in accordance with ASTM D1155.*

Delete the last paragraph.

**ASPHALT BINDER CONTENT OF ASPHALT PLANT MIXES:**

(1-1-02)

RR 43

The approximate asphalt binder content of the asphalt concrete plant mixtures used on this project will be as follows:

Asphalt Concrete Base Course	Type B 25.0 __	4.3 %
Asphalt Concrete Intermediate Course	Type I 19.0 __	4.7 %
Asphalt Concrete Surface Course	Type S 4.75A	7.0 %
Asphalt Concrete Surface Course	Type SF 9.5A	6.5 %
Asphalt Concrete Surface Course	Type S 9.5 __	6.0 %
Asphalt Concrete Surface Course	Type S 12.5 __	5.5 %

The actual asphalt binder content will be established during construction by the Engineer within the limits established in the *Standard Specifications*.

**ASPHALT CONCRETE SURFACE COURSE COMPACTION:**

(7-1-95)

RR 49

Compact the asphalt surface course on this project in accordance with Subarticle 610-9 of the *Standard Specifications* and the following provision:

Perform the first rolling with a steel wheel roller followed by rolling with a self-propelled pneumatic tired roller with the final rolling by a steel wheel roller.

**POLYMER MODIFIED CONCRETE PAVEMENT REPAIR**

SPI

**Description**

This specification shall provide a repair system for PCC Concrete Deck and pavements. The items include removal of loose material, milling or jackhammering to develop the repair system, preparation of the repair material and bulking aggregate, and complete installation of the repair system.

**Description of Material**

The repair material shall be a hot applied binder consisting of bitumen, polymers, graded fillers, aggregates and fibers that provide an impermeable, void less mass solid at ambient temperatures. The binder is formulated according to climatic conditions to provide a long lasting repair, which provides good fluidity at process temperature with low temperature flexibility and ambient temperature flow resistance.

The material shall meet the following requirements:

<b>Binder Properties</b>	<b>Method</b>	<b>Requirement</b>
Bond	ASTM D 1190	Pass, 3 cycles@ -20°C, 50%
Penetration	ASTM D 5329	1mm min @ -18°C 200g, 60 seconds
Ductility	ASTM D 113	40 cm min @ 25°C
Flexibility	ASTM D 5329	Pass @ -12°C
Flow	ASTM D 5329	3 mm Max @ 60°C @ 5 Hours
Resilience	ASTM D 5329	40% min @ 25°C
Softening Point	ASTM D36	82°C Min
Elongation		500% Min
Wheel Tracking	BS 598	4.8 mm/h
Safe Heating Temperature		230°C
Recommended Pouring Temperature		185° C - 199°C

#### Bulking Aggregate

The single sized bulking aggregate shall be a crushed; double washed, and dried granite. It shall be supplied in ¾" and ½' sizes which meet the following requirements:

Gradations- Sieve Size	½' and ¾"
Polished Stone Value (PSV)	60 min
Aggregate Abrasion Value (AAV)	Less than 5
Aggregate Impact Value (AIV)	Equal to 8
Aggregate Crush Value (ACV)	Equal to 10-15

#### Preparation of Materials

The repair material shall be mixed and heated on site in a horizontal mixing unit.

The bulking aggregates shall be heated and dried free of any dust in a vented barrel mixer to 300°F.

#### Construction Requirements

The repair system installation will encompass the damaged/spalled areas. Variations in depth and width of the repair area will be adjusted by the Engineer and Contractor.

The repair/ replacement procedure will include the following:

Remove all loose/damaged patch and damaged concrete pavement. The repair area will be removed to a depth and width, which will allow the repair material to be properly seated and installed.

A milling machine or jackhammer will be used to develop the depressed seat. The concrete substrate faces must be vertical and thoroughly cleaned and dried using a hot- compressed air lance.

The area will be primed using a primer determined by the manufacturer to prevent moisture intrusion. A layer of heated binder will be applied to cover the bottom and sides of the repair area.

If the repair area extends deeper than 2” the heated binder will be installed in layers and the heated single sized bulking aggregates will be added to the repair material at a rate of 25%. The repair system will be built in successive layers until level to the existing pavement surface. A final coat of the heated repair material will be applied to level the repair area and will overlap the edges of the repair area approximately ½” to ensure a tight waterproof seal. The surface of the patch will be dressed with a heated crushed single sized (1/8”) aggregate chipping to provide a tack free, skid resistant surface.

The area will be swept and all debris removed from the site.

**Method of Measurement**

The repair system measurement will be by the pound of material installed.

**Basis of Payment**

Work completed and accepted and measured as provided above, will be paid for at the unit price bid per pound for the repair system, which shall be full compensation for furnishing materials, for heating and mixing, for removal/disposal of existing patch/ loose pavement material, placing and finishing, and for all labor, equipment, tools, and incidentals necessary to complete the work.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Polymer Modified Concrete Pavement Repair	Pound

**RESURFACING EXISTING BRIDGES:**

(7-1-95)

RR 61

The Contractor's attention is directed to the fact that he will be required to resurface the bridges on this project if directed by the Engineer.

Place the surface so as to follow a grade line set by the Engineer with the minimum thickness as shown on the sketch herein or as directed by the Engineer. State Forces will make all necessary repairs to the bridge floors prior to the time that the Contractor places the proposed surfacing. Give the Engineer at least 15 days notice prior to the expected time to begin operations so that State Forces will have sufficient time to complete their work.

At all bridges that are not to be resurfaced, taper out the proposed resurfacing layer adjacent to the bridges to insure a proper tie-in with the bridge surface.

**PATCHING EXISTING PAVEMENT:**

(1-15-02) (Rev.7-18-06)

RR 88

**Description**

The Contractor's attention is directed to the fact that there are areas of existing pavement on this project that will require repair prior to resurfacing. Patch the areas that, in the opinion of the Engineer, need repairing. The areas to be patched will be delineated by the Engineer prior to the Contractor performing repairs.

**Materials**

The patching consists of Asphalt Concrete Base Course, Asphalt Concrete Intermediate Course, Asphalt Concrete Surface Course, or a combination of base, binder and surface course.

**Construction Methods**

Remove existing pavement at locations directed by the Engineer in accordance with Section 250 of the *Standard Specifications*.

Place Asphalt Concrete Base Course, in lifts not exceeding 5 1/2 inches. Utilize compaction equipment suitable for compacting patches as small as 3.5 feet by 6 feet on each lift. Use an approved compaction pattern to achieve proper compaction. If patched pavement is to be open to traffic for more than 48 hours prior to overlay, use Asphalt Surface Course in the top 1.25 inches of the patch.

Schedule operations so that all areas where pavement has been removed, will be repaired on the same day of the pavement removal and all lanes of traffic restored.

**Measurement and Payment**

*Patching Existing Pavement* will be measured and paid for as the actual number of tons of asphalt plant mix complete in place, that has been used to make completed and accepted repairs. The asphalt plant mixed material will be measured by being weighed in trucks on certified platform scales or other certified weighing devices. The above price and payment will be full compensation for all work covered by this provision, including but not limited to removal and disposal of pavement; furnishing and applying tack coat; furnishing, placing, and compacting of asphalt plant mix; furnishing of asphalt binder for the asphalt plant mix; and furnishing scales.

Patching Existing Pavement will be considered a minor item. In the event that the item of Patching Existing Pavement overruns the original bid quantity by more than 100 percent, the provisions of Article 104-5 of the *Standard Specifications* pertaining to revised contract unit price for overrunning minor items will not apply to this item. Any provisions included in the contract that provides for adjustments in compensation due to variations in the price of asphalt binder will not be applicable to payment for the work covered by this provision.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Patching Existing Pavement	Ton

**AGGREGATE PRODUCTION:**

(11-20-01) (Rev. 11-21-06)

RR 109

Provide aggregate from a producer who uses the current Aggregate Quality Control/Quality Assurance Program which is in effect at the time of shipment.

No price adjustment is allowed to contractors or producers who use the program. Participation in the program does not relieve the producer of the responsibility of complying with all requirements of the *Standard Specifications*. Copies of this procedure are available upon request from the Materials and Test Unit.

**CHANGEABLE MESSAGE SIGNS**

(11-21-06)

RR 111

Revise the 2006 *Standard Specifications* as follows:

Page 11-9, Article 1120-3, Replace the 3rd sentence with the following:

Sign operator will adjust flash rate so that no more than two messages will be displayed and be legible to a driver when approaching the sign at the posted speed.

**CONCRETE BRICK AND BLOCK PRODUCTION:**

(11-20-01) (Rev. 11-21-06)

RR 112

Provide concrete brick and block from a producer who uses the current Solid Concrete Masonry Brick/Unit Quality Control/Quality Assurance Program that is in effect on the date that material is received on the project.

No price adjustment is allowed to contractors or producers who use the program. Participation in the program does not relieve the producer of the responsibility of complying with all requirements of the *Standard Specifications*. Copies of this procedure are available upon request from the Materials and Test Unit.

**PAVEMENT MARKING LINES MEASUREMENT AND PAYMENT:**

(11-21-06)

RR 120

Revise the *2006 Standard Specifications* as follows:

Page 12-14, Subarticle 1205-10, delete the first sentence of the first paragraph and replace with the following:

*Pavement Marking Lines* will be measured and paid for as the actual number of linear feet of pavement marking lines per application that has been satisfactorily placed and accepted by the Engineer.