

**PROJECT SPECIAL PROVISIONS**

**ROADWAY**

**SHOULDER RECONSTRUCTION PER SHOULDER MILE:**

(1-18-00) (Rev 11-16-10)

R1 R07A(Revised)

**Description**

This work consists of reconstructing each shoulder (including median shoulders as applicable) in accordance with Roadway Standard Nos. 560.01 and 560.02 except that the rate of slope and width will be as shown on typical section, or to the existing shoulder point, whichever is nearer, as long as the desired typical is achieved, and when completed, seeding and mulching ( including Residential Seeding). This work shall be performed immediately after the resurfacing operations are complete as directed by the Engineer.

**Perform shoulder reconstruction immediately following paving operations and in no case allow paving operations to exceed shoulder operations by more than two weeks without written permission of the Engineer. Failure to meet this requirement shall be cause to cease paving operations until it can be met. Place final pavement markings after shoulder reconstruction.**

**Materials**

The Contractor shall furnish all earth material necessary for the construction of the shoulders. Provide soil capable of supporting vegetation. Remove stones and other foreign material 2 inches or larger in diameter. All soil is subject to test and acceptance or rejection by the Engineer.

The Contractor will have the option of using Aggregate Shoulder Borrow (ASB) which meets the following gradation on map #1.

<u>Sieve</u>	<u>Percent Passing</u>
1 1/2"	100
1/2"	55 - 95
#4	35 - 74

**Construction Methods**

**The Contractor shall use all suitable earth material generated by the widening operation for the construction of shoulders. If additional shoulder material is needed to complete this item of work, the Contractor shall furnish borrow material from an approved source.**

Prior to adding borrow material, the existing shoulder shall be scarified to provide the proper bond and shall be compacted to the satisfaction of the Engineer.

Any excess material generated by the shoulder reconstruction shall be disposed of by the Contractor in an approved disposal site.

**Measurement and Payment**

*Shoulder Reconstruction* will be measured and paid as the actual number of miles of shoulders that have been reconstructed. Measurement will be made along the surface of each shoulder to the nearest 0.01 of a mile. Such price will include disposing of any excess material in an approved disposal site, and for all labor, tools, equipment, and incidentals necessary to complete the work.

*Borrow Excavation* will be paid in accordance with Section 230 of the *Standard Specifications* for earth material furnished by the Contractor. If ASB is used for borrow excavation a unit weight of 140 pounds per cubic foot will be used to convert the weight of ASB to cubic yards.

*Seeding and Mulching* will be measured and paid as shown elsewhere in the contract documents. Where ASB is used, seeding and mulching will not be required.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Shoulder Reconstruction	Shoulder Mile
Borrow Excavation	Cubic Yard

**CONSTRUCTION SEQUENCE:**

**Once a map is started the Contractor will be required to complete paving including intersections, before moving to another map.**

**INCIDENTAL STONE BASE:**

(7-1-95) (Rev.3/09/11)

DIV. 7(Rev.)

**Description**

The Contractor shall place incidental stone base along the edge of pavement where low shoulders are present as well as on driveways, mailboxes, etc. immediately after paving and shall not have the paving operations exceed stone base placement by more than one week without written permission of the Engineer. All areas shall be backfilled and compacted to the satisfaction of the Engineer. Failure to meet this requirement shall be cause to cease paving operations until it can be met. Place final pavement marking after completion of this work.

**Construction**

Perform work in accordance with all applicable requirements of Section 545 of the *Standard Specifications* and this provision.

**Materials**

Refer to Section 545 of the *Standard Specifications*.

The Contractor will have the option of using Aggregate Shoulder Borrow (ASB) which meets the following gradation on the project.

<u>Sieve</u>	<u>Percent Passing</u>
1 1/2"	100
1/2"	55 – 95
#4	35 – 74

**Measurement and Payment**

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

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

(11-21-00) (Rev. 7-19-11)

609

R6 R15

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__	4.4%
Asphalt Concrete Intermediate Course	Type I 19.0__	4.8%
Asphalt Concrete Surface Course	Type S 4.75A	6.8%
Asphalt Concrete Surface Course	Type SF 9.5A	6.7%
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 *2012 Standard Specifications*.

**ASPHALT PLANT MIXTURES:**

(7-1-95)

609

R6 R20

Place asphalt concrete base course material in trench sections with asphalt pavement spreaders made for the purpose or with other equipment approved by the Engineer.

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

(11-21-00)

620

R6 R25

Price adjustments for asphalt binder for plant mix will be made in accordance with Section 620 of the *2012 Standard Specifications*.

The base price index for asphalt binder for plant mix is \$ **634.29** 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, 2012**.

**FINAL SURFACE TESTING NOT REQUIRED:**

(5-18-04) (Rev. 5-15-12)

610

R6 R45

Final surface testing is not required on this project.

**ASPHALT SURFACE TREATMENT**

DDC 7

The provisions of Section 660 shall apply with the following exceptions and or additions:

Table 660-1 shall be revised as follows – The liquid and stone rates for No. 67 and No. 78m stone shall be revised. (See bold print in table below):

**TABLE 660-1  
MATERIAL APPLICATION RATES AND TEMPERATURES**

<b>TYPE OF COAT</b>	<b>GRADE OF ASPHALT</b>	<b>ASPHALT RATE, GAL/SY Total</b>	<b>APPLICATION TEMP. °F</b>	<b>AGGREGATE SIZE</b>	<b>AGGREGATE RATE Lb/SY Total</b>
Mat	CRS-2 or CRS-2P	<b>0.35- 0.40</b>	150-175	No. 67	<b>15- 20</b>
	CRS-2 or CRS-2P	<b>0.30-0.35</b>	150-175	No. 78M	<b>7-10</b>

Note “A.” associated with Table 660-1 is deleted.

**Asphalt paving shall immediately follow rolling of mat coat. Mat shall not be subjected to traffic prior to asphalt overlay.**

**RESURFACING EXISTING BRIDGES:**

(7-1-95) (Rev. 3-20-12)

R6 R61A

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.

**PAVING INTERSECTIONS:**

(7-1-95) (Rev. 3-20-12)

610

R6 R67A

Surface all unpaved intersections back from the edge of the pavement on the main line of the project at least 50 feet. The pavement placed in the intersection shall be of the same material and thickness placed on the main line of the project.

Resurface all paved intersections back to the ends of the radii, or as directed by the Engineer.

The base on the unpaved intersections will be placed and prepared for surfacing by State Forces.

Widen the pavement on curves as directed by the Engineer.

**PAVEMENT WIDTH VARIES:**

(7-1-95)

610

R6 R76

The Contractor's attention is directed to the fact that the existing pavement varies in width and the Contractor will be required to widen the pavement as directed by the Engineer in order to obtain a uniform edge of pavement.

**TRENCHING FOR BASE COURSE**

(7-1-95)

R6 R79 REVISED

Perform all trenching necessary to place the asphalt concrete base course widening in accordance with the typical sections, at locations shown on the sketch maps, and as directed by the Engineer.

**Trenching shall be done with a milling machine. The trench shall be the width noted on the Typical Sections +/- 0.1'. If the trench excavation exceeds the 0.1' tolerance, the Contractor will be required to backfill the trench with approved earth material at no cost to the Department and retrench to the proper width.**

Perform the trenching for the base course on the same day that the base course is to be placed. If the base course cannot be placed on the same day the trench section is excavated, backfill the trench with earth material and compact it to the satisfaction of the Engineer. Once the trench is open, perform backfilling and re-opening of the trench at no cost to the Department.

The Contractor will be restricted to widening one side of the project at a time unless otherwise permitted by the Engineer. In widening, operate equipment and conduct operations in the same direction as the flow of traffic.

Density tests may be taken every 2000 feet in the widened areas as directed by the Engineer. Shape and compact the subgrade in the widened areas to the satisfaction of the Engineer. Compact the asphalt concrete base course in the widened areas in accordance with the provisions of Article 610-9 of the *2012 Standard Specifications*.

Place the excavated material from trenching operation on the adjacent shoulder area as directed by the Engineer. Where Shoulder Reconstruction is not required, the excavated material shall be placed directly into dump trucks & stock piled and/or hauled to an approved waste pit. Cut adequate weep holes in the excavated material to provide for adequate drainage as directed by the Engineer. Remove all excavated material from all drives to provide ingress and egress to abutting properties and from in front of mailboxes and paper boxes. Saw a neat edge and remove all asphalt and/or concrete driveways, and existing asphalt widening, as directed by the Engineer, to the width of the widening and dispose of any excavated concrete or asphalt materials. Properly reconnect driveways.

Upon completion of the paving operation, backfill the trench to the satisfaction of the Engineer. Properly dispose of any excess material remaining after this operation.

No direct payment will be made for trenching, sawing, and removal of driveways, depositing material on shoulder area, backfilling trench, or removal of spoil material, as the cost of this work shall be included in the contract unit price per ton for *Asphalt Concrete Base Course, Type*

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**ADJUSTMENT OF MANHOLES, METER BOXES, AND VALVE BOXES:**

1/22/09 Div. 7

Utility adjustments on this project shall be made in accordance with Article 858-3 of the *2012 Standard Specifications* with the following exception:

Cast iron or steel fittings will not be permitted for the adjustment of manholes, meter boxes, and valve boxes on this project.

Adjustment to manholes, meter boxes, and valve boxes on this project shall be made by the use of an approved Rapid Set Grout, Mortar, or Concrete that will take full set and become load bearing within sixty minutes of placement. The Resident Engineer will furnish a list of approved materials to the Contractor.

The Contractor shall replace worn/damaged manhole rings and covers, worn meter box frames and covers, and worn valve box frames and covers, as directed by the Engineer, with a new ring/frame and cover assembly. The Department or utility owner will furnish these assemblies at no cost to the Contractor.

In the event that no adjustment is required to a manhole, meter box or valve box, a bond breaker such as sand, paper, asphalt release agent or other approved material shall be used over the top of the manhole or valve. The work of applying the material and subsequent cleaning of the manhole or valve shall be incidental to paving operations and no additional compensation will be made.

**Measurement and Payment**

Measurement and payment will be in accordance with Section 858-4 of the *2012 Standard Specifications*.

**MATERIALS:**

(2-21-12) (Rev. 5-15-12)

1005, 1081

R10 R01

Revise the 2012 Standard Specifications as follows:

Page 10-23, Table 1005-1, AGGREGATE GRADATION-COARSE AGGREGATE, replace with the following:

Std. Size #	Percentage of Total by Weight Passing													Remarks
	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4	#8	#10	#16	#40	#200		
4	100	90-100	20-55	0-15	-	0-5	-	-	-	-	-	A	Asphalt Plant Mix	
467M	100	95-100	-	35-70	-	0-30	0-5	-	-	-	-	A	Asphalt Plant Mix	
5	-	100	100	20-55	0-10	0-5	-	-	-	-	-	A	AST, Sediment Control Stone	
57	-	100	95-100	-	25-60	-	0-10	0-5	-	-	-	A	AST, Str. Concrete, Shoulder Drain, Sediment Control Stone	
57M	-	100	95-100	-	25-45	-	0-10	0-5	-	-	-	A	AST, Concrete Pavement	
6M	-	-	100	100	20-55	0-20	0-8	-	-	-	-	A	AST	
67	-	-	100	90-100	-	20-55	0-10	0-5	-	-	-	A	AST, Str. Concrete, Asphalt Plant Mix	
78M	-	-	-	100	98-100	75-100	20-45	0-15	-	-	-	A	Asphalt Plant Mix, AST, Str. Conc, Weep Hole Drains	
14M	-	-	-	-	-	100	35-70	5-20	0-8	-	-	A	Asphalt Plant Mix, AST, Weep Hole Drains, Str. Concrete	
9	-	-	-	-	-	100	85-100	10-40	0-10	-	-	A	AST	
ABC	-	100	75-97	-	55-80	-	35-55	-	25-45	14-30	4-12 <sup>B</sup>	A	Aggregate Base Course, Aggregate Stabilization	
ABC (M)	-	100	75-100	-	45-79	-	20-40	-	0-25	-	0-12 <sup>B</sup>	A	Maintenance Stabilization	
Light-weight <sup>C</sup>	-	-	-	-	100	80-100	5-40	0-20	-	0-10	-	0-2.5	AST	

- A. See Subarticle 1005-4(A).
- B. See Subarticle 1005-4(B).
- C. For Lightweight Aggregate used in Structural Concrete, see Subarticle 1014-2(E)(6).

**Page 10-162, Subarticle 1081-1(A) Classifications, lines 4-7,** delete the second and third sentences of the description for Type 3A.

**Page 10-162, Subarticle 1081-1(B) Requirements, lines 26-30,** replace the second paragraph with the following:

For epoxy resin systems used for embedding dowel bars, threaded rods, rebar, anchor bolts and other fixtures in hardened concrete, the manufacturer shall submit test results showing that the bonding system will obtain 125% of the specified required yield strength of the fixture. Furnish certification that, for the particular bolt grade, diameter and embedment depth required, the anchor system will not fail by adhesive failure and that there is no movement of the anchor bolt. For certification and anchorage, use 3,000 psi as the minimum Portland cement concrete compressive strength used in this test. Use adhesives that meet Section 1081.

List the properties of the adhesive on the container and include density, minimum and maximum temperature application, setting time, shelf life, pot life, shear strength and compressive strength.

**Page 10-169, Subarticle 1081-3(G) Anchor Bolt Adhesives,** delete this subarticle.

**RESIDENTIAL SEEDING**

(Div. 7)

All areas adjacent to lawns shall be hand finished as directed to give a lawn type appearance. Remove all trash, debris, and stones ¾" and larger in diameter or other obstructions that could interfere with providing a smooth lawn type appearance.

Fertilizer shall be 10-20-20 analysis. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as a 10-20-20 analysis and as directed.

Residential Seeding will be measured and paid for in accordance with Section 1660.

Payment will be made under:

<b>Pay Item</b>	<b>Unit</b>
Residential Seeding	AC