

SECTION 516 -- BITUMINOUS PAVEMENT PATCHING

516.01 -- Description

Bituminous pavement patching shall consist of the removal and disposal of unstable or disintegrated bituminous or concrete surfacing and/or base course and the placing and compacting of "Asphaltic Concrete, Type ____", at specified locations. Patching shall include the correction of faulty subgrade conditions.

516.02 -- Material Requirements

All materials shall conform to the requirements in Table 516.01.

Table 516.01

Material Requirements	
Applicable Materials	Section
Asphaltic Concrete.....	1028
Asphalt Cement	1029
Liquid Asphalt	1030
Emulsified Asphalt	1031, 1032
Aggregate	1033

516.03 -- Equipment

All equipment used in pavement patching shall conform to the requirements in Sections 501 and 503.

516.04 -- Construction Methods

1. The Contractor shall patch bituminous and concrete pavement in accordance with the requirements in Section 503.
2.
 - a. The removal of old concrete shall be performed in accordance with the requirements in Section 203.
 - b. Any material that is removed or is excess shall be disposed of by the Contractor.
3. All pavement patching shall be completed in the same work day.
4.
 - a. The underlying material shall be uniformly compacted to the Engineer's satisfaction.
 - b. After compaction, a tack coat shall be applied on the vertical faces and bottom surface as prescribed in Section 504. The rate of application shall be as directed by the Engineer.

5. All cut edges shall be vertical and cut in straight lines.
6. Sand or gravel satisfactory to the Engineer shall be used to replace any removed base course. Subgrade soils removed during patching shall be replaced with similar suitable soil material.
7. The thickness of the layers shall be adjusted so that the required density is achieved throughout the layer. The final elevation of the patch's surface shall be approximately 10 mm above the adjacent surfacing.

516.05 -- Method of Measurement

1. Patching of flexible pavement will be measured by the hour of equipment rental in accordance with Section 919. Only approved equipment needed to patch and excavate the failure is to be rented. Excluded is any equipment needed to haul asphalt to the site.
2. Concrete pavement patching will be measured by the square meter of completed and accepted work. Concrete pavement patching with asphalt is divided into 3 types (see Table 516.02). The types are based on the size of the individual patches constructed in a single lane. If a damaged area spans 2 or more lanes, then the continuous patch will be counted as multiple patches -- 1 patch per lane.

Table 516.02

Asphalt Patch Sizes in Rigid Pavement	
Type	Size
A	5 m ² or less
B	Greater than 5 m ² to 15 m ²
C	Greater than 15 m ²

3. Asphalt cement and asphaltic concrete used in patching will be measured for payment in accordance with Subsection 503.05. The Engineer may authorize additional asphaltic concrete, not to exceed 150 mm in depth, to replace faulty subgrade material.

516.06 -- Basis of Payment

1.

Pay Item	Pay Unit
Rental of Motorgrader, Fully Operated	Hour (h)
Rental of Dump Truck, Fully Operated	Hour (h)
Rental of Loader, Fully Operated	Hour (h)
Rental of Skid Loader, Fully Operated	Hour (h)
Asphaltic Concrete for Patching, Type _____	Megagram (Mg)
Asphalt Patching of Portland Cement Concrete Pavement, Type _____	Square Meter (m ²)
2. Patching of flexible pavement will be paid per hour of equipment rental.

3. Asphalt cement and asphaltic concrete used in the work of pavement patching shall be paid for in accordance with Section 503.

4. Emulsified asphalt for tack coat will be measured and paid for in accordance with Section 504.

5. If more than one type of asphaltic concrete is required, the pay item will be subdivided so the quantities of each type are documented.

6. If sand or gravel is used to replace the base course, the pay item will be "Granular Material for Patching" measured by the cubic meter. Payment will be negotiated.

7. Payment is full compensation for all work prescribed in this Section.