

53.7 ASPHALT PAVEMENT SURFACE AND CRACK REPAIR - SPRAY PATCH

53.7.1 GENERAL

The Work consists of supplying and applying a “tack coat” and a mixture of asphalt binder and clean aggregate, or pre-mixed “spray patch” material, to pavement cracks and contiguous deteriorated pavement (up to 15 cm in width) and other defective areas on the pavement surface.

53.7.2 MATERIALS

The Contractor shall supply clean, crushed aggregate meeting the following specifications in accordance with Specification 55.3, Aggregate Production and Stockpiling.

<u>Metric Sieve Size</u>	<u>Percent Passing</u>
10 000	100
5 000	20-100
2 500	5-40
1 250	0-10

The Contractor shall supply liquid asphalt for binder and tack purposes from the Alberta Transportation Recognized Products list. The type and grade of liquid asphalt shall be appropriate for the aggregate materials used. Pre-approved asphalt materials include HF-150S, HF-250S, RS-1K and WSPE-1.

The use of other asphalt binders will be subject to the approval of the Engineer.

53.7.3 PROCEDURE

Work shall not be performed when the atmospheric temperature at the work site is below 5° Celsius.

The Engineer will determine the transverse cracks and defective areas of asphalt pavement surface to be repaired.

All loose and objectionable material shall be removed from in and around the open crack by sweeping, blowing or suction means.

Clean cracks and defective areas shall be sprayed with a tack coat of asphalt binder, and then sprayed with the combined asphalt and aggregate mixture.

Some over-spraying of the crack or defective area will be required to ensure a dense, smooth transition between the repaired crack and the adjacent undisturbed pavement surface.

Compaction of a repaired crack or defective area will only be required when specified in the Work Order. When compaction is required, the repaired area shall be compacted to ensure adequate embedment of the mixture into and over the crack or defective area.

Any loose or excess material shall be removed from the work area.

53.7.4 SAMPLING AND TESTING

The Contractor shall retain copies of his supplier's QC testing results, and undertake the quality control and quality assurance testing as required by the QC/QA Program as shown in the Special Provisions. The Contractor shall supply material samples to the Engineer for QA (Audit) testing purposes when requested.

53.7.5 ACCEPTANCE CRITERIA

Evaluation of the Work will be based on a visual inspection by the Engineer. To be acceptable, the spray patch material must be adequately embedded into the crack or defective area and must provide a smooth transition between the treated area and the adjacent undisturbed pavement surface. Also, any loose aggregate material must be removed and the work site must be left in a clean condition.

Inadequate or excessive, amounts of oil in the spray patch mix may result in rejection of the Work.

The Contractor shall re-treat any failed areas at his expense.

53.7.6 TIME TO COMPLETE

The Contractor shall complete the Work within 60 calendar days of the issuance of the Work Order.

53.7.7 MEASUREMENT AND PAYMENT

Measurement will be in metres of the length of crack treated or square metres of defect area treated.

Payment will be made at the unit price bid per metre for "Asphalt Pavement Crack Repair - Spray Patch". This payment will be full compensation for sweeping and cleaning the cracks; supplying and applying tack coat; supplying the crushed aggregate and asphalt binder; producing, hauling and placing the mix; removal of excess or loose material; and all labour, materials, equipment, tools and incidentals necessary to complete the Work.

Payment will be made at the unit price bid per square metre for "Asphalt Pavement Surface Repair - Spray Patch." This payment will be full compensation for sweeping and cleaning the area; supplying and applying

tack coat, supplying the crushed aggregate and asphalt binder; producing, hauling and placing the mix; removal of excess or loose material; and all labour, materials, equipment, tools and incidentals necessary to complete the Work.

Where compaction is specified in the Work Order, a supplemental payment for the equipment required will be made as Extra Work in accordance with Specification 51.2, General (for Maintenance Work)

The cost of supplying aggregate is included in the unit prices bid for Asphalt Pavement Crack/Surface Repair - Spray Patch and will not be paid for separately.

If, in the opinion of the Engineer, additional equipment (supplemental to what is normally used in the “Spray Patch” operation) is required to remove objectionable material from the cracks and defect areas, payment for such equipment will be made as Extra Work in accordance with Specification 51.2, General (For Maintenance Work).

53.7.8 WARRANTY

The warranty period for this Work shall be 1 year. Reflective cracking of transverse and longitudinal cracks within the warranty period shall not be considered a warranty item.