

# CITY OF ALBANY

## Standard Specifications Technical Provisions

### Section 5

#### Street Failed Area Repair

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**5-1.1 General** — The Contractor shall remove failed pavement areas where marked to a minimum depth of three (3) inches. The exact limits, including depth, shall be subject to adjustment by the Director of Public Works in the field based on actual conditions at the time of removal of the failed area.

Failed areas shall be carefully removed to neat lines by methods necessary to insure that the existing underground utilities areas are not damaged, the subgrade at the depth of planned removal is not damaged, and removal does not occur beyond the planned or approved limits. Any removal beyond planned or approved limits shall be restored as failed area repair at no expense to the City.

Prior to placing asphalt concrete in the failed areas, the subgrade shall be compacted to a minimum relative compaction of 95% to a depth of not less than six (6) inches. The subgrade shall be smooth and uniform in depth.

Attention is directed to the possibility that certain streets may have concrete pavement underlying the existing asphalt surfacing, or the asphalt concrete thickness may exceed the three (3) inch minimum depth of repair. It shall be the Contractor's responsibility to fully investigate the existing condition to satisfy himself as to the nature and thickness of the existing surfacing. No additional payment will be made for removal and repair to a depth greater than the three (3) inch minimum, or to reach depth as specified in the Special Provisions.

**5-1.2 Disposal of Excavated Material** — Asphalt concrete and base rock materials removed from failed area repairs may be either:

- a) Removed from the project limits and disposed of as provided for in Section 6-18 of the General Provisions, or
- b) Prepared by means approved by the Director of Public Works to meet the

gradation requirements of class subbase material in accordance with Section 7-2.3 of these specifications, and delivered to the City's designated storage site.

**5-1.3 Tack Coat** — Excavate failed areas shall have the edges thoroughly coated, by spraying or hand application, with a RS-1 emulsified asphalt tack coat prior to placing asphalt, as specified by Section 9-6 of these specifications.

**5-1.4 Placing Asphalt Concrete** — Asphalt concrete, conforming to the Section 9 — “Asphalt concrete” of these specifications shall be placed in accordance with Section 9, in the failed areas as soon as possible, but in no event in less than twenty-four (24) hours after the removal of the failed areas.

Asphalt concrete may be placed in failed areas in lifts not to exceed three (3) inches and shall be compacted to a minimum relative compaction of not less than 95%.

**5-1.5 Measurement** — Failed area repairs shall be measured by the cubic yard based on the neat planned lines or lines approved by the Engineer in the field. Repairs outside planned or approved limits will not be included in final measurements.

**5-1.6 Payment** — The contract unit price for failed area repair shall be considered as including all labor, equipment, materials and incidentals, including but not limited to excavation, disposal, compacting subgrade, tack coating asphalt concrete, for completing the item, and no additional compensation shall be made therefor.

## **5-2 Specifications for Application of Crack Seal**

**5-2.1 Scope** — This work shall consist of placing asphalt-rubber crack sealant in random cracks in accordance with these specifications and as directed by the Engineer.

### **5-2.2 Materials**

**General:** Only materials conforming to these specifications shall be incorporated in the work.

**Asphalt-Rubber Sealant:** The crack sealant shall consist of a mixture of paving grade asphalt and vulcanized granulated crumb rubber. The mixture shall contain not less than 25 percent granulated reclaimed rubber, by weight. Rubber gradation shall conform to the following requirements:

<u>Sieve Size</u>	<u>Percent Passing</u>
No. 8	100
No. 10	98-100
No. 30	
No. 40	0-10

The sealant shall conform to the following requirements:

Cone Penetration, 77 degrees F	40 Max
Softening Point, degrees F	175 Min
Resilience, 77 degrees F, %	30 Min

The sealant shall be capable of being melted and applied to cracks at temperatures below 400 degrees F. When heated, the material shall readily penetrate cracks ¼ inch in width or wider.

Modifiers may be used to facilitate blending.

Control of Materials: Each lot of sealant shipped to the job site shall be accompanied by a certificate of Compliance as provided in Section 6-1.07, "Certificate of Compliance," of the latest edition of the California State Department of Transportation's *Standard Specifications*, and shall be accompanied by storage and heating instructions and cautions.

**5-2.3 Application** — Cracks shall be cleaned prior to application to provide intact bonding surfaces which are free from all dust, moisture or other contaminants.

Cracks with an average clear opening of ⅛ inch or more in width and less than ⅜ inch in width shall be routed to provide a minimum sealant reservoir of ⅜ inch wide by ¼ inch deep. Cracks having an average clear opening wide of ⅜ inch or greater need not be routed, but shall be cleaned to a minimum depth of ¾ inch. Cracks less than ⅛ inch clear opening width need not be sealed.

Vegetation in cracks shall be treated with an approved weed killer, after removal.

Immediately prior to placing sealant, the crack shall be cleaned by blastcleaning or by hand methods and then cleaned with high pressure air jets to remove all residue and foreign materials. Exposed surfaces shall be dry at the time the sealant is applied.

Sealant materials shall be heated and placed in conformance with the manufacturer's written instructions. Joint sealant materials shall not be placed when the pavement surface temperature is below 50 degrees F.

Sufficient sealing material shall be placed in the cracks so that upon completion of the work, the surface of the sealant in the crack shall be flush with the adjacent pavement surface, or at the elevation directed by the Engineer. The Contractor shall "spot up" or refill to the proper elevation, at the Contractor's expense, all unsatisfactory cracks.

All cracks shall be leveled and excess crack sealant removed immediately after placing. Sand shall be applied to sealed cracks, as necessary and at the direction of the Engineer, to absorb excess material.

The finished crack sealant shall be bonded to the faces of the crack. There shall be no separation or opening between the sealant and the faces, and there shall be no crack, separation, or other opening in the sealant.

Crack sealing will not be required when the existing surfacing is to be covered by an asphaltic membrane or by a rubberized seal coat.

**5-2.4 Measurement and Payment** — Payment will be per linear foot of cracks sealed. The price shall include full compensation for all labor and materials necessary to seal cracks in accordance with these specifications.

If no bid item is provided in the "Bid Proposal," crack filling shall be considered as included in the contract unit price paid for asphalt concrete.