

DIVISION 400

2018 AMENDED SECTION 404

BITUMINOUS TACK COAT

404.01 Description.

This work described in this Section shall consist of preparing and treating an existing bituminous or concrete surface with bituminous material. Application of tack coat material shall be as specified in the contract documents.

404.02 Surface Preparation.

Prior to placement of the bituminous tack coat, the pavement surface shall be clean, dry, and free of all loose and foreign material. All pavement surface shall be approved by the Engineer before the tack coat is placed.

404.03 Materials.

At the option of the Contractor, tack coat materials may be a slow-setting emulsion, a rapid-setting emulsion, a quick-setting emulsion, or a Performance Graded asphalt cement with a high temperature grade equal or higher than the highest temperature grade required for the asphaltic concrete pavement. Emulsions shall conform to the requirements of AASHTO M 140, M 208, ASTM D 977, D 2397, WYDOT Standard Specification Table 804.3-1, or AASHTO M 320, as appropriate for the selected material.

404.04 Weather Limitations.

Unless otherwise specifically directed by the Engineer, no tack coat shall be placed when the ambient air is below 40° F. (4.4°C), or when, in the opinion of the Engineer, excessive wind or other atmospheric conditions will not permit satisfactory placement of the tack coat.

404.05 Placing of the Tack Coat.

- A. The tack coat shall be placed by means of an approved pressure distributor. The distributor shall be in good mechanical condition and shall be capable of uniformly distributing the tack coat throughout a reasonable range of widths, pressures, temperatures, and application rates. Unless otherwise approved by the City, the distributor equipment shall include a tachometer, pressure gauges, accurate volume measuring devices, and an accurate thermometer for reading temperatures of tank contents. The tack coat shall be applied at a residual asphalt rate of 0.03-0.05 gals./sq. yd (0.14 - 0.23 liters/sq.m) unless otherwise approved. Prior to placement the material shall be handled and heated in accordance with manufacturer's recommendations. Dilution of emulsions shall not exceed a one-to-one ratio of added water to original emulsion. The volumes or weights of original emulsion and

any added water shall be reported to the City or their designated representative prior to application of the emulsion.

- B. The tack coat shall be carefully and uniformly applied, particularly on all vertical surfaces against which asphaltic pavement is to be placed, around curbs, sidewalks, and other structures, and if excessive amounts of bituminous oil are sprayed on the curbs, sidewalks, and other structures, they shall be cleaned as directed by the Engineer at the expense of the Contractor. Excessive lapping of abutting applications will not be permitted. Should excessive lapping occur, the tack coat in the lapped portion shall be removed and replaced as directed by the Engineer at the Contractor's expense.
- C. All spots missed by the distributor or areas which are inaccessible to the distributor shall be hand sprayed. Particular attention shall be given to hand spraying operations to provide complete coverage and to avoid the application of excessive amounts of bituminous oil.
- D. The tacked surface shall be allowed to cure before placing any asphaltic concrete. The tacked surface shall be maintained by the Contractor until the asphaltic concrete is placed. Any damaged areas shall be repaired as directed by the Engineer and at the Contractor's expense. All vertical contact surfaces such as concrete gutters, manholes, drainage structures, curbs, and so forth, shall be tacked by painting with a hot asphaltic cement of the grade used in the asphaltic pavement just prior to placing the asphaltic pavement.
- E. When the first course of asphaltic concrete is to be immediately covered by the second course of asphaltic concrete, the tack coat may not be required. When the first coat of asphaltic concrete is subjected to traffic, rain, blowing dust, and/or other unfavorable conditions, the tack coat shall be applied.

404.06 Test Reports.

Certificates of compliance for the bituminous tack coat material shall be supplied by the Contractor and furnished to the City or their designated representative for each consignment of asphaltic material as provided Division 400, Section 403.06 of these Specifications.