

S-87

**STANDARD SPECIFICATION FOR MATERIALS AND THE
CONSTRUCTION OF AN ASPHALTIC CONCRETE PAVEMENT
IN THE CITY OF SANTA MARIA, CALIFORNIA**

SECTION 1. GENERAL REQUIREMENTS

The work herein provided for is to be done in accordance with the plans, profiles, cross-sections and the general and special provisions on file in the Engineering Office of the Department of Public Works of the City of Santa Maria, and with these specifications, which are intended to cover all items necessary for the complete construction and placing in operation of an Asphaltic Concrete Pavement, together with all necessary miscellaneous appurtenances thereto. No plans may be used unless signed by the City Engineer within the last year. All proposed equipment schedules and material lists must be submitted in quadruplicate and approved prior to initiating the work. Standard Specifications refer to the Standard Specifications of Caltrans, The State Department of Transportation, State of California, as last revised.

SECTION 2. MATERIAL REQUIREMENTS

- A. IMPORTED SUB-BASE (if required to replace unsuitable materials directed removed from the right-of-way)

Imported select material shall be specifically designated or approved by the City Engineer. This material shall comply with Standard Specifications for Class 3, Aggregate Sub-base Section 25.

- B. AGGREGATE BASE

An aggregate base material shall conform to the requirements of Section 26, Class 2, three-quarter inch (3/4" maximum, of the Standard Specifications.

- C. ASPHALT CONCRETE

Type "B" three-quarter inch (3/4") or one-half inch (1/2") maximum medium, mineral aggregate asphaltic concrete shall be in compliance with Sections 39 and 92 of the Standard Specifications and to the thickness and with the numbers of courses shown on the Plans and Specifications.

Base course(s) shall have (3/4") aggregate and finish/surface course(s) shall have (1/2") aggregate unless specifically directed otherwise by the plans and specifications.

Performance Graded (PG) asphalt binder shall conform to PG 64-10.

D. ASPHALT EMULSION PAINT BINDER (SEE SECTION 3.G)

A liquid mixing type asphalt of seal emulsion type (SS-1) shall be in compliance with Sections 37 and 94 of the Standard Specifications.

E. ASPHALT BERM (DIKE OR CURB)

See City Standard Drawing and Section 37 of the Standard Specifications.

F. OTHER MATERIALS

Any other materials required by specific structures, conditions or appurtenances will be specified and approved separately by the City Engineer.

SECTION 3. CONSTRUCTION METHODS

A. ROADWAY CLEARING, GRUBBING, EXCAVATION, GRADING & REMOVALS

This item includes the removal of all objectionable material from within the right-of-way lines or project limit lines and disposal of said material off the job site, at a location satisfactory to the City Engineer. Existing structures, to be preserved, shall be lowered and protected and restored upon completion of the work. Also included is all removal, excavation, embankment and grading to finished subgrade within catch points of slopes outside of right-of-way lines as shown on typical section. Import of approved subgrade material is also included if required to make original subgrade.

Stumps and root systems of trees and other organic material shall be removed to a depth of twenty-four inches (24") below the subgrade. This item of work shall also comply with Sections 16, 17, 18 and 19 of the Standard Specifications.

Existing aggregate and asphalt roadway materials may be reused for embankments after being reduced in size to particles of two inches (2") maximum diameter. Pulverizing and replacement of this material is part of this work. All embankment and fill and areas over excavated shall be compacted to a relative density of ninety-five percent (95%).

Material which is surplus to the project requirements will be disposed of off the site as part of this bid item.

B. REMOVAL OF UNSUITABLE SUB-BASE

Material which is unsuitable, for any reason as determined solely by the Engineer, shall be removed from the right-of-way, and disposed of as directed by the City Engineer. Material to be removed will be defined in writing, with reference to stationing and depth of removal, said written description to be prepared by the City and presented to the Contractor prior to any removal. This work shall also comply with Section 19-2.02 of the Standard Specifications.

C. IMPORTED SUB-BASE

Subsequent to removal of defective material, under Item B above, an equal quantity of acceptable material shall be imported. The imported select material will be specifically designated or approved by the City. The material and method of application shall comply with Section 25 of the Standard Specifications.

D. ROADWAY PREPARATION AND SUBGRADE

The grading shall be prosecuted in the following manner: the area to be graded shall first be thoroughly broken up and loosened, by the use of suitable tools and equipment.

Such areas which are below the required elevations shall also be broken and loosened to such a depth as will permit thorough bonding with any earth fill which shall be made. Such low areas shall then be brought to the required elevations by filling with surplus earth from other portions of the graded area or with earth from outside the said area, if there is not available surplus earth therein. After the whole area to be graded has been brought to the required elevations and contours, the entire area shall be thoroughly broken up and loosened to a depth of not less than six inches (6") and then it shall be thoroughly compacted by rolling with an approved power roller having a weight of not less than three hundred pounds (300#) per inch width of iron tire. The rolling shall be continued until the graded surface is true to elevations and contours, firm and unyielding. During the performance of the rolling, the surface portions of the graded area not accessible to the roller shall be thoroughly compacted by the use of mechanical tampers. It is not intended herein to require that all of the grading work upon the whole area to be improved shall be done at one time, but may be done in sections of convenient size and the above provisions shall apply with equal effect to any such section.

The subgrade area or the area between gutters shall be brought to the lines and grades required by the plans and as directed by the Engineer. Work on this item shall comply with all requirements of the Standard Specifications for subgrade, as defined under Sections 19.1-03, 19-5.02 and 19-6.02 and City Standard Drawings for street section designs for various street classifications. Water required to achieve the specified results will be provided by the City, from a designated fire hydrant, upon application to the City's Water Utility in Administrative Services Department. The contractor shall pay for the cost of water. Relative compaction to be ninety-five percent (95%) as measured by California Test Method No. 216 or by calibrated nuclear density instrument.

E. AGGREGATE BASE COURSE

An aggregate base material shall be placed on the finished subgrade of areas to be paved in accordance with Section 26, Class 2, three-quarter inch (3/4") maximum, of the Standard Specifications. Depth of such base shall be in accordance with the sections shown on the Plans and shall have a relative compaction of not less than ninety-five percent (95%) as determined by California Test Method No. 216 or calibrated nuclear density instrument.

Water will be available and shall be applied under the conditions stated in Section D,

above.

F. ASPHALTIC CONCRETE

A layer of Type "B", three-quarter inch (3/4") or one-half inch (1/2") maximum medium, mineral aggregate asphaltic concrete is to be placed in accordance with Sections 39 and 92 of the Standard Specifications. The thickness and number of lifts is shown on the Plans and Specifications. Mix designs shall be submitted for approval to the City Engineer. Only approved designs shall be used in the work and all asphaltic concrete shall be placed with an approved self-propelled paving machine.

Contractor's attention is specifically directed to the provisions of Section 39, relating to spreading and compacting equipment (Sect. 39-5) and spreading and compacting (Sect. 39-6).

G. OTHER CONSTRUCTION

Asphaltic emulsion paint binder (tack coat), as above, shall be applied to all edges of abutting concrete, asphaltic concrete, and to surfaces of existing pavement which are to receive pavement overlays.

Any other specific structures, conditions or appurtenances required to complete this asphaltic concrete pavement project will be specified and approved separately, but must be closely coordinated by the Contractor to assure installation prior to proceeding with any pavement work. This includes such items as culverts, street light conduit, sewers, water line, etc., depending upon the specific project requirements.

H. RAISE AND LOWER FRAMES AND COVERS

The Contractor shall be responsible for all work required for raising or lowering all existing frames for valve box covers, monument covers, manhole covers, etc., to the final paving grade, where applicable.