# SECTION 321216 ASPHALT CONCRETE PAVING

## PART 1 - GENERAL

A. Description

This section includes materials, testing, and installation of asphalt concrete pavement, aggregate base course, herbicide, prime coat, tack coat, and seal coat.

B. Related Work Specified Elsewhere

1. Trenching, Backfilling, and Compacting: 312316.

2. Traffic Signing, Striping, and Markings: 321723.

C. Submittals

Submit six copies of a report from a testing laboratory verifying that aggregate material contains less than 1% asbestos by weight or volume and conforms to the specified gradations or characteristics.

D. Testing for Compaction

1. The Owner will test for compaction as described in Section 312316.

E. Standard Specifications

Wherever reference is made to the State Specifications such reference shall mean the State of California, Business, Transportation, and Housing Agency, Department of Transportation Standard Specifications, 2006.

## PART 2 - MATERIALS

A. Asphalt Concrete Paving

Asphalt concrete paving shall conform to the City of Santa Maria Standard Drawing RD-33 and shall be Type B per Section 39 of the State Specifications, having 0.5-inch-maximum medium grading with PG-64-10 asphalt binder.

B. Aggregate Base Course

Aggregate base shall be Class 2 aggregate base, 0.75-inch-maximum size per Section 26 of the State Specifications. Aggregate shall contain less than 1% asbestos by weight or volume.

C. Prime Coat

All areas to be paved shall receive prime coat. Prime coat shall be per Section 39-4.02 in the State Specifications.

D. Tack Coat

Tack coat shall conform with Section 94, Grade SS1h in the State Specifications.

E. Asphalt

Asphalt shall be Performance Grade PG 64-10 per Section 92 in the State Specifications. Asphalt content in the pavement shall be 5.5% to 6.0%.

F. Aggregate for Asphalt Concrete

Aggregate shall be Type A or B per Section 39-2.02 in the State Specifications. Aggregate shall contain less than 1% asbestos by weight or volume.

G. Seal Coat

Seal coat shall be Type II slurry seal per Section 37 of the State Specifications, or fog type per Section 37 of the State Specifications.

H. Wood Headers

Size of wood headers shall be 2 inches by the depth of the asphalt concrete paving; minimum size shall be 2 inches by 4 inches. Wood shall be Douglas fir No. 1. Wood shall comply with Section 57 of the State Specifications.

I. Herbicide or Weed Killer

Use Gallery (Isoxaben) by Dow AgroSciences, Pre-M (Pendimethalin) by American Cyanamid Co., Surflan (Orizalin) by Dow Chemical, or equal.

J. Pavement Markers

Markers shall be Type D per Section 85 of the State Specifications.

K. Paint for Traffic Striping and Marking

Provide thermoplastic paint per Section 84 of the State Specification.

PART 3 - EXECUTION

A. Pavement Removal

1. Initially cut asphalt concrete pavement with pneumatic pavement cutter or other equipment at the limits of the excavation and remove the pavement. After backfilling the excavation, saw cut asphalt concrete pavement in conformance with the drawings, and remove the additional pavement.

2. Saw cut concrete pavement, including cross gutters, curbs and gutters, sidewalks, and driveways, to a minimum depth of 2 inches at a point 1 foot beyond the edge of the excavation and remove the pavement. The concrete pavement may initially be cut at the limits of the excavation by other methods prior to removal and the saw cut made after backfilling the excavation. If the saw cut falls within 3 feet of a concrete joint or pavement edge, remove the concrete to the joint or edge.

3. Make arrangements for and dispose of the removed pavement.

4. Final pavement saw cuts shall be straight along both sides of trenches, parallel to the pipeline alignment, and provide clean, solid, vertical faces free from loose material. Saw cut and remove damaged or disturbed adjoining pavement. Saw cuts shall be parallel to the pipeline alignment or the roadway centerline or perpendicular to same.

5. The Owner's Representative has reviewed existing street improvement data along the route of the project to try to determine the type and depth of the existing pavement sections within the trench prism. The Owner does not guarantee the accuracy of this determination of the pavement sections.

| | **Station** | | **Existing Pavement Sections** | | | |
|---|---|---|---|---|---|---|
| **Name of Street** | **From** | **To** | **A.C. Pave. (in.)** | **Agg. Base (in.)** | **Agg. Sub. (in.)** | **Cement-Treated Base (in.)** |
| Blosser Road | 1+00 | 40+00 | 4.5 | 5 | -- | -- |
| Blosser Road | 40+00 | 50+50 | 2.5 | 3 | -- | -- |
| Blosser Road | 50+50 | 51+20 | 2.25 | 12 | 7 | -- |

B. Pavement Grinding

1. Pavement Grinding shall be in conformance with Section 42-2 of the State Specifications.

C. Pavement Replacement

1. Backfill, compaction, and the permanent paving, except for the final asphalt surface course, shall be complete at all times to a point not to exceed 2,000 feet behind any working heading. The final asphalt surface course shall be 2 inch thick. Do not place final surface course until at least three months after traffic has been returned to that portion of the street. Place temporary striping after the base course of A.C. pavement has been completed in the same configuration as the existing permanent striping so that traffic can be returned to normal patterns. This striping shall be considered temporary and is the Contractor's responsibility to place and maintain.

2. The pavement replacement shall as shown on the plans.

D. Installation

Producing, hauling, placing, compacting, and finishing of asphalt concrete shall conform to Section 39 of the State Specifications. Apply seal coat to all paving except open asphalt concrete.

E. Connections with Existing Pavement

Where new paving joins existing paving, grind the existing surfaces 12 inches back from the joint line so that there will be sufficient depth to provide a minimum of 1 inch of asphalt concrete. Dispose of waste material offsite. Tack ground areas prior to placing the asphalt concrete. Meet lines shall be straight and the edges vertical. Paint the edges of meet line cuts with liquid asphalt or emulsified asphalt prior to placing asphalt concrete. After placing the asphalt concrete, seal the meet line by painting with a liquid asphalt or emulsified asphalt and then immediately cover with clean, dry sand.

F. Preparation of Subgrade

1. Excavate and shape subgrade to line, grade, and cross section shown in the drawings. The subgrade shall be considered to extend over the full width of the base course.

2. Scarify and cultivate the top 6 inches of subgrade when the subgrade consists of dry soils which are impervious to the penetration of water, soils which contain excessive amounts of moisture which may result in unstable foundations, soils which are nonuniform in character which may result in nonuniform relative compactions and subsequent differential settlements of

finished surfaces, or when pavement is to be placed directly on the roadbed material.

3. After rough grading has been completed, when scarifying and cultivating are required, loosen the roadbed to a depth of at least 6 inches. Work the loosened material to a finely divided condition and remove rocks larger than 2 inches in diameter. Bring the moisture content to optimum by the addition of water, by the addition and blending of dry material, or by the drying of existing material. Compact the material to the specified relative compaction.

4. Uniform pervious soils that allow the immediate penetration of water or uniform impervious soils which will allow the penetration of water to a depth of at least 6 inches after the addition of a suitable wetting agent will not require scarifying and cultivating. When scarifying and cultivating are not required, bring the moisture content of the top 6 inches of the subgrade material to optimum by the addition of water at the surface, and compact the material to the specified relative compaction.

5. Remove soft material disclosed by the subgrade preparation, replace with aggregate base course material, and recompact.

6. Compact the top 6 inches of subgrade to 95% relative compaction.

7. The finished subgrade shall be within a tolerance of ±0.08 of a foot of the grade and cross-section shown and shall be smooth and free from irregularities and at the specified relative compaction.

G. Installing Wood Headers

Provide wood header at edges of paving except where paving is adjacent to concrete slabs, gutters, walks, existing paving, or structures.

H. Placing Aggregate Base Course

Place aggregate base course to a minimum thickness of 6 inches, unless shown otherwise in the drawings. Compact to 95% relative compaction. Install in accordance with Section 26 of the State Specifications.

I. Compaction of Aggregate Base and Leveling Courses

Compaction and rolling shall begin at the outer edges of the surfacing and continue toward the center. Apply water uniformly throughout the material to provide moisture for obtaining the specified compaction. Compact each layer to the specified relative compaction before placing the next layer.

J. Applying Herbicide or Weed Killer

Apply weed killer or herbicide on base prior to placing pavement. Apply at the rate recommended by the manufacturer to control downy brome grass, puncture vine, and plaintain. Apply from outside of curb to opposite outside of curb and for the full width of roadways and parking areas.

K. Placing Prime Coat

Apply prime coat to the surface of the leveling course of aggregate base at the rate of 0.25 gallon per square yard per Section 39-4.02 in the State Specifications.

L. Placing Tack Coat

Apply tack coat on surfaces to receive finish pavement per Section 39-4.02 in the State Specifications. Apply tack coat to metal or concrete surfaces that will be in contact with the asphalt concrete paving.

M. Placing Asphalt Paving

Place asphalt paving at a minimum thickness to match existing asphalt paving thickness unless otherwise shown in the drawings. Install in accordance with Section 39-6 in the State Specifications.

N. Compaction of Asphalt Concrete Paving

Compact until roller marks are eliminated and a density of 92% minimum to 98% maximum has been attained per ASTM D2041.

O. Applying Seal Coat

Apply fog-type seal coat at the rate of 0.05 to 0.10 gallon per square yard, or apply slurry seal coat at the rate of 10 to 15 pounds of dry aggregate per square yard.

P. Surface Tolerance

1. Finished grade shall not deviate more than 0.02 foot in elevation from the grade indicated in the drawings. Slopes shall not vary more than 1/4 inch in 10 feet from the slopes shown in the drawings.

2. After paving has been installed and compacted, spray water over the entire paved area. Correct any areas where water collects and does not drain away.

Q. Applying Paint for Traffic and Parking Lot Striping and Marking

Apply in accordance with Section 84 of the State Specifications and Specification Section 321723.

R. Installing Pavement Markers

See Specification Section 321723.

S. Installing Fire Hydrant Markers

Install a blue reflective marker opposite each new or relocated fire hydrant. Place the marker on the pavement and locate 6 inches off the centerline of the traffic striping or reflective pavement markers towards the hydrant. Install markers in accordance with Section 85 of the State Specifications. Reinstall damaged or removed markers for existing fire hydrants.

END OF SECTION