

PAVEMENT MARKINGS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work Specified in this Section: Furnish materials and perform labor required to execute this work as indicated on the drawings, as specified and as necessary to complete the Contract, including, but not limited to these major items:
 - 1. Coordinate the work of this section with other trades.
 - 2. Verify applicable dimensions at the job site.
 - 3. Painted parking stall divider lines.
 - 4. Pavement markings, arrows, and lettering.
- B. Related Work Specified Elsewhere:
 - 1. Asphalt Paving.

1.02 REFERENCE STANDARDS

- A. General: Conform to the latest edition of the following reference standard to the extent specified. Delete references to measurement and payment and substitute the County's Representative for Engineer.
- B. Public Works Construction Specifications (indicated hereinafter as PWC Spec.): Standard Specifications for Public Works Construction, including all amendments thereto, except where noted otherwise in this section.
- C. Ordinances, Codes and Regulations: All work shall be installed in accordance with all of the requirements of all legally constituted authorities having jurisdiction, including all local ordinances, codes and the Construction Safety Orders and General Industry Safety Orders of the State Division of Occupational Safety and Health (Cal/OSHA), CCR, Title 8.
- D. California Building Code (CBC), Title 24.

1.03 QUALITY ASSURANCE

- A. General: Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and methods needed for proper performance of the work in this section.
- B. Installer's Qualifications: A firm with at least two years of successful installation experience on projects with pavement marking work similar to that required for the project.

1.04 SUBMITTALS

- A. Comply with pertinent provisions of Division 01.
- B. The Developer Design/Builder shall allow ample time for checking and processing and to allow the work to be accomplished in accordance with the accepted Schedule, and shall assume all responsibility for delays incurred due to rejected items. No installation of the material concerned shall be made until written approval has been obtained from the County's Representative. Approval of materials and equipment shall in no way obviate compliance with the plans and specifications.

1.05 SITE CONDITIONS

- A. Site and Drawings: Carefully examine the site and compare the drawings with existing conditions. By the act of submitting bids, the Developer Design/Builder shall be deemed to have made such examination and to have accepted such conditions, and to have made allowance therefore in preparing his figure.
- B. Protection: Provide protection and repair adjacent surfaces and areas which may be stained or damaged as a result of installation.

PART 2 - PRODUCTS

2.01 PAVEMENT MARKING PAINT

- A. Line and Arrow Markings: White traffic paint, conforming to PWC Spec. Subsection 210-1.6 for "rapid dry" type paints, non-reflectorized.
- B. Accessible Markings: Paint blue in color equal to Color No. 15090 per Federal Standard 595B.
- C. All paint shall meet the requirements of the air pollution control district having jurisdiction.

PART 3 - EXECUTION

3.01 EQUIPMENT

- A. General: All machines, tools, and equipment used in performance of the work shall be approved and maintained in satisfactory operating condition.
- B. Painting Equipment: Hand-operated push-type machines of a type commonly used for application of paint to pavement surfaces shall be acceptable for marking small street and parking areas. Applicator machine shall be equipped with the necessary paint tanks and spray nozzles and shall be capable of applying paint uniformly at coverage specified. Hand-operated spray guns shall be provided for use in areas where push-type machines cannot be used.
- C. Sandblasting Equipment: Sandblasting equipment shall be provided as required for cleaning surfaces to be painted.

3.02 WEATHER CONDITIONS

- A. All paint shall be applied only when the temperature is within the range recommended by the paint manufacturer.

3.03 GEOMETRY, STRIPES, AND TRAFFIC LINES

- A. Longitudinal pavement markings: Conforming to PWC Spec. Subsection 310-5.6.5, paint shall not be reflectorized.
- B. Symbols: Standard word markings, letters, numerals and symbols shall be applied using suitable spray equipment together with stencils and templates.
- C. Accessible markings: Painted lines and markings shall be 3 inches wide and blue in color. Parking spaces for the disabled shall be marked according to CBC 1129B.4. Tactile warning lines shall be in conformance to CBC Sections 1133B.8.3 and 1133B.8.4.

3.04 SURFACE PREPARATION

- A. Pavement Curing: New pavement surfaces shall be allowed to cure for a period of not less than 10 days before application of marking materials. The paint shall not bleed, curl, or discolor when applied to bituminous surfaces. If bleeding or discoloring occurs, the unsatisfactory areas shall be given an additional coat of paint.

- B. Pavement Cleaning: All surfaces to be marked shall be thoroughly cleaned before application of the paint. Dust, dirt, and other granular surface deposits shall be removed by sweeping, blowing with compressed air, rinsing with water or a combination of these methods as required. Rubber deposits, surface detritus, existing paint markings, and other coatings adhering to the pavement shall be completely removed with scrapers, wire brushes, sandblasting, approved chemicals, or mechanical abrasion as directed. Where oil or grease are present on old pavements to be marked, affected areas shall be scrubbed with several applications of tri-sodium phosphate solution or other approved cleaning solution and rinsed thoroughly after each application. After cleaning, oil-soaked areas shall be sealed with cut shellac to prevent bleeding through the new paint.

3.05 LAYOUT, ALIGNMENT AND SPOTTING

- A. The Developer Design/Builder shall provide an experienced technician to supervise the location, alignment, layout, dimensions, and application of the paint.

3.06 APPLICATION

- A. Rate of Application: Paint shall be applied evenly to the pavement surface to be coated to the wet film thickness indicated in PWC Spec. Subsection 310-5.6.5.
- B. Paint: Paint shall be applied to clean, dry surfaces, in accordance with the manufacturer's recommendations. Paint shall be applied pneumatically with approved equipment at rate of coverage specified herein. The Developer Design/Builder shall provide guidelines and templates as necessary to control paint applications. Special precautions shall be taken in marking numbers, letters, and symbols. All edges of markings shall be sharply outlined. The maximum drying time requirements of the paint specifications will be strictly enforced, to prevent undue softening of bitumen, and pickup, displacement, or discoloration by tires of traffic. If there is a deficiency in drying of the markings, painting operations shall be discontinued until cause of the slow drying is determined and corrected.
- C. Traffic Controls: Suitable warning signs shall be placed near the beginning of the work site and well ahead of the work site for alerting approaching traffic from both directions. Small markers shall be placed along newly painted lines to control traffic and prevent damage to newly painted surfaces.

3.07 CLEANING

- A. Cleanliness of Site: During progress of work, keep premises reasonably free of debris and waste materials.
- B. Removal of Debris: Upon completion and before final acceptance of work, remove all debris, rubbish, left-over materials, waste test water, tools and equipment from site in accordance with regulatory requirements and in an environmentally responsible manner.

END OF SECTION