

# Pavement Markings - Standard Specifications

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## A. Pavement Markings

### PART 1 - GENERAL

#### 1.01 SECTION INCLUDES

- A. Preparation for painting pavements and curbs.
- B. Painting for street markings such as center lines and crosswalks.
- C. Painting parking stalls, marking fire lane and walkways, symbols, and lettering.

#### 1.02 REFERENCE STANDARDS

- A. Seattle Standard Specifications – City of Seattle Standard Specifications for Road, Bridge, and Municipal Construction, 2017.
- B. Seattle Standard Plans – City of Seattle Standard Plans for Municipal Construction, 2017.
- C. MUTCD – Latest edition of Manual on Uniform Traffic Control Devices for Streets and Highways with latest revisions per WSDOT.

#### 1.03 SUBMITTALS

- A. Product Data: Pavement marking materials and colors.

#### 1.04 QUALITY ASSURANCE

- A. Pre-Installation Meeting:
  - 1. Coordinate and attend meeting prior to painting.
  - 2. Attendees to include paving contractor/installer, Owner, and Engineer.
  - 3. Agenda:
    - a. Owner expectations and installation requirements.
    - b. Sequence of Work, schedule, and responsibilities.
    - c. Existing pavement conditions and whether hot sprayed thermoplastic is suitable application for a parking lot because of pavement conditions.

#### 1.05 REGULATORY REQUIREMENTS

- A. Comply with City of Seattle standards.

#### 1.06 ENVIRONMENTAL REQUIREMENTS

- A. Pavement must be clean and dry.
- B. Comply with manufacturer's recommendations.

## **PART 2 - PRODUCTS**

### **2.01 PAINT**

- A. Streets/Roads, including center lines, edge/fog lines, stop-bars:
  - 1. Reflectorized traffic line paint for street striping in accordance with Seattle Standard Specifications Section 9-29. Low VOC (volatile organic compound) solvent-based or waterborne paint.
- B. Parking Stalls and ADA Access Aisles - Outdoor:
  - 1. Reflectorized traffic line paint for parking stalls in accordance with Seattle Standard Specifications Section 9-29. Low VOC (volatile organic compound) solvent-based or waterborne paint.
- C. Parking Stalls and ADA Access Aisles - Indoor:
  - 1. Non-reflectorized traffic line paint for parking stalls in accordance with Seattle Standard Specifications Section 9-29. Low VOC (volatile organic compound) solvent-based or waterborne paint.
- D. Crosswalks, Directional Arrows, Pedestrian Pathways, No-Parking Markings, Symbols, Lettering, Parking Stall End Bands, and all other Pavement Markings:
  - 1. Type A – Liquid Hot Applied Thermoplastic in accordance with Seattle Standard Specifications Section 9-29.3(1).
- E. Color:
  - 1. Street center lines: Yellow.
  - 2. Fire lane markings: Yellow, Comply with City of Seattle Requirements.
  - 3. All other applications: White.

## **PART 3 - EXECUTION**

### **3.01 EXAMINATION**

- A. Verify paving and curbing is complete, and surface is ready to receive painting and striping.
- B. Verify paving and curbing is sufficiently cured.
- C. Verify surfaces to receive painting and striping are dry and free of loose debris.
- D. Verify weather forecast during planned time of placement is within weather limitations.
- E. For parking lots, verify distance between curbs to ensure adequate width for the indicated number of stalls.
- F. For thermoplastic application on existing pavement, assess pavement to verify whether pavement conditions are suitable for hot sprayed thermoplastic.

### 3.02 PREPARATION

- A. Clean and prepare surface for receiving paint in accordance with Seattle Standard Specification Section 8-22.3(2).
  - 1. New pavement:
    - a. Ensure pavement is sufficiently cured.
    - b. Air blast pavement with a high-pressure system to remove extraneous and loose materials.
  - 2. Existing pavement:
    - a. Remove existing pavement markings per Seattle Standard Specification Section 2-02.3(3) J.
    - b. Cleaning and removal methods used shall not damage pavement surface. Grinding to remove pavement markings is not allowed.
    - c. Air blast pavement with a high-pressure system to remove extraneous and loose materials.
- B. Layout lines and symbols to spacing and locations shown on Drawings.
- C. Apply primer as recommended by the manufacturer to the area receiving pavement markings.

### 3.03 CONSTRUCTION

- A. Comply with Seattle Standard Specifications Section 8-22.3.
- B. Ensure that both the pavement surface and the air temperature during application are not lower than 50 degrees Fahrenheit.
- C. Provide preliminary layout for Owner review prior to install of permanent pavement markings. Layout parking stalls at locations and extents as shown on Drawings. Make sure dimensions from center line to center line of parking stalls match dimensions as shown on Drawings. Do not install pavement marking without Owner's review of the layout.
- D. Install pavement markings at locations, spacing, size, and extents as shown on Drawings.
- E. Apply pavement marking materials to clean and dry surfaces.
- F. Apply pavement marking materials in accordance to the material manufacturer's requirements and recommendations.
- G. For parallel double lines, place painting material in one pass.
- H. Place pavement marking lines parallel and true to line.
- I. Ensure line ends square and clean.
- J. Ensure the top of pavement marking smooth and uniform.
- K. For paint, apply two applications of paint to pavement markings. Ensure the second application of paint squarely on top of the first application. Time period between two paint applications: per Seattle Standard Specifications Section 8-22.3(3) E.
- L. Ladder Type Crosswalks: Spread white sharp sand over fresh marking materials at a rate of approximately one pound per twenty square feet.
- M. Paint Application Thickness: Per Seattle Standard Specifications Section 8-22.3(3) F.

- N. Glass Beads Application: For hot sprayed thermoplastic, apply glass beads per Seattle Standard Specifications Section 8-22.3(3) G. Application rate per manufacturer's recommendations.

### 3.04 TOLERANCES

- A. Width of line: Must not be less than the specified line width or greater than the specified line width by 1/4 inch.
- B. Thickness: 10 percent plus or minus.
- C. Parking stall and ADA path width: 1/4 inch from center line to center line.

### 3.05 FIELD QUALITY CONTROL

- A. Inspection: Owner will observe Work at the following milestones:
  - 1. After completion of surface preparation and before installing preliminary pavement marking layouts.
  - 2. After completion of preliminary pavement marking layouts. Owner will check dimensions of parking stall layouts.
  - 3. After completion of pavement markings.

### 3.06 PROTECTION

- A. Protect painted surfaces until dry.