

### **Conditions of Use/ Responsibility of Data**

These "guideline" specifications are to be used by the A/E as a base document in the development of project/site-specific Division 2 – SITE WORK specifications for Montgomery County Public Schools Construction Projects. They may or may not be complete, correct and/or appropriate for use for any given project. It is the responsibility of the A/E to review these "guideline" specifications and to edit and/or supplement them as required to ensure that they represent the full, complete, correct and code-compliant specifications required for all construction of the project to which they apply. The use of these "guideline" specifications, and/or any information herein, in no way releases the A/E from their contractual responsibility to prepare and provide the full, complete and correct code-compliant contract documents, plans and/or specifications required for construction.

Review and editing of these "guideline" specifications shall be performed by appropriately licensed Maryland professional engineer. Specifications are to be prepared in Microsoft Word, edited using the "Track Changes" feature of that software and submitted to MCPS electronically on a compact Disk for review.

## **SECTION 02540 - ROAD AND PARKING ACCESSORIES**

### **PART 1 - GENERAL:**

#### 1.1 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1, Specification Sections, apply to work in this section.

#### 1.2 DESCRIPTION OF WORK:

- A. Section specifies materials and work required to apply, install and construct miscellaneous road and parking accessories.

#### 1.3 RELATED SECTIONS:

- A. Refer to Section 02100 "Earthwork and Grading", and Section 02512 "Concrete Curbing".

#### 1.4 STANDARDS:

- A. Maryland Department of Transportation State Highway Administration's current "Standard Specifications for Construction Materials".
- B. "Manual on uniform Traffic Control Devices for Streets and Highways" ANSI D6.1-1971.

#### 1.5 SUBMITTALS:

- A. Products:
  - 1. Submit manufacturer's specifications and application instructions for pavement marking paint.

2. Submit manufacturer's descriptive literature for road and parking area signs.

1.6 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. Deliver paint to project site in original unopened containers bearing manufacturer's label.
- B. Store paint in tightly covered containers.

1.7 PROJECT CONDITIONS:

- A. Maintain vehicular and pedestrian traffic during pavement marking operations. Do not apply paint when ambient air temperature is below 50 deg. F, relative humidity exceeds 85%, wind exceeds 20 miles per hour or pavement surface temperature is below 50 deg. F.
- B. Montgomery County: Contractor shall notify Fire Marshal within 48 hours of completion of curbing and pavement construction to schedule site inspection for purposes of designating locations of curb marking. Curbs at fire lanes shall be painted yellow.
- C. Curbs and line stripes at handicapped parking spaces shall be painted yellow.
- D. All other on-site striping shall be white.

**PART 2 - PRODUCTS:**

2.1 MATERIALS:

- A. Pavement Marking: AASHTO M 248, type I, non-reflective paint, colors as noted. Materials used in the Public Right-of-Way shall be Type B, Class I, Thermoplastic alkyd. Materials used in Public Right-of-Way shall be approved by Montgomery County Department of Transportation, Traffic Engineering prior to installation. Colors shall be:
  1. Standard Parking Spaces: White
  2. Bus Stacking Spaces: White
  3. Handicapped Parking Spaces: Yellow
  4. Traffic Lanes: Yellow
- B. Curb Marking : AASHTO M 248, type I, reflective yellow paint.
- C. Road and Parking Area Signs: Purchase from Montgomery County Department of Transportation.
  1. Handicapped Parking Area and Fire Lane Signs: In accordance with Montgomery County Department of Transportation standards, and the MUTCD.
  2. Stop Signs shall be 30 inch by 30 inch signs.
- D. Traffic Control Signs:
  1. Traffic control signs in accordance with Montgomery County Department of Transportation standards, the MUTCD, and as indicated.
- E. Sign Posts: Galvanized steel channel with 5/16 by two inch steel nuts and bolts and galvanized steel washers.
- F. Wheel-Stops: Wheel stops shall be made of 100 percent post-consumer recycled plastic, painted yellow and embedded into asphalt with spikes; per TAPCO, Inc. model no. 472-5, or approved equal.

### **PART 3 - EXECUTION:**

#### **3.1 PAVEMENT MARKING:**

- A. Surface Preparation: Clean pavement surfaces, removing grease, oil, mud and foreign materials.
- B. Preparation for New Pavement Markings: Lay out markings to dimensions and line widths indicated and specified. Bituminous concrete pavement to cool and set five calendar days prior to paint application. Do not apply marking materials to wet or damp pavement surfaces. Do not apply marking materials until pavement marking removal paint has set and hardened. Surfaces to set an additional eight hours after appearing dry.
- C. Application: Thermoplastic pavement marking materials shall be applied to pavement at a minimum temperature of 400 degrees Fahrenheit. Apply paint to width and length of pavement marking lines indicated, and as noted. Apply paint with spray equipment and/or conventional traffic line striping equipment, and in accordance with paint manufacturer's recommendations, to produce markings parallel and with sharp line edges, uniform in cross section and with line widths as indicated or specified. Minimum application rate to be 100 feet per gallon.
  - 1. Lay out and apply paint for universal handicapped space symbols in accordance with standard practice and as directed by Architect or Owner's Representative.
- D. Protection and Restoration: Protect completed paint marking from damage. Do not permit vehicular or pedestrian traffic on completed marking until paint has set and hardened. Restore damaged paint marking as directed by Architect.

#### **3.2 CURB MARKING:**

- A. Locations:
  - 1. Fire Marshal will tour site after completion of curbing and pavement construction. During tour Fire Marshal will indicate locations where curb marking is to be applied. Contractor shall apply markings at no increase to Contract Sum.
- B. Application: Allow concrete curbing to cure 14 calendar days prior to paint application. Clean curb surfaces removing grease, oil, mud and foreign material. Do not apply paint to wet or damp curb surfaces. Apply paint to face and top of curbing by manual brush methods or with spray equipment.

#### **3.3 ROAD AND PARKING AREA SIGNS:**

- A. Sign Locations: Locations of various sign types shall be as indicated on Construction Drawings and as directed by Owner and Architect. Contractor shall provide and install indicated and selected signs at no increase to Contract Sum.
- B. Post Installation: Excavate post footing to 12 inch diameter and 30 inch depth. Place and consolidate concrete in footing excavation. Install post and assembled sign in concrete plumb to 1/4 inch in 10 feet and 24 inch depth. Provide bracing to prevent movement. Slope concrete surface one inch with outside edges flush with finished grade and trowel to smooth finish. Contractor shall allow concrete footings to cure a minimum of 14 calendar days before removing bracing.

#### **3.4 WHEEL STOPS**

- A. Wheel-Stops: Install per manufacturer's recommendations. Stop shall be centered in space and be placed no closer than three feet to end of space.

**END OF SECTION**