

SECTION 34 41 05
TRAFFIC SIGNS AND DEVICES

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes
1. Signs, signposts, and hardware.

1.02 PRICE AND PAYMENT PROCEDURES

- A. Measurement and Payment
1. All new signs shall be measured in accordance with MnDOT Spec. 2564.4G. Payment for all sign installation shall be at the Bid Unit Price per unit of measure of square feet and shall include all materials, collars, foundation material, hardware, post caps, equipment, and labor necessary to install each sign and post(s) at the staked location.
 2. There will be no extra compensation for posts, regardless of length or required configuration. There shall be no extra compensation for post installations in bituminous or concrete surfaces.
 3. All other Work and costs of this Section shall be incidental to the Project and included in the Total Base Bid.

1.03 REFERENCES

- A. Minnesota Department of Transportation "Standard Specifications for Construction" 2020 Edition (MnDOT Spec.).
1. 2564 - Traffic Signs and Devices.
 2. 3352 – Signs, Delineators and Markers.
- B. Minnesota Manual on Uniform Traffic Control Devices (MMUTCD).
- C. Minnesota Department of Transportation Standard Signs Manual.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Sign Material
1. Sign Panel Base Material: Sheet aluminum conforming to the material requirements of MnDOT Spec. 3352.2A.1.a.
 2. Sign Face Material for Sign Panels: Reflective sheeting conforming to the requirements of MnDOT Spec. 3352.2A.2.a "Sign Sheeting Type III."
 3. Sign Legend Material for Signs: "Direct Applied" conforming to the requirements of MnDOT Spec. 3352.2A.5.
 4. The appropriate length of the upper post shall be determined by the Contractor to meet the construction requirements of the above stated references and herein at each specific location staked by the Engineer. The lower post shall be 6 to 7 feet in length.
 5. Sign posts located in concrete or bituminous pavement shall have break off posts.
 6. Street Sign Panel and Post
 - a. Panel to be as shown on the Drawings.
 - b. Public Street – Green background with white lettering.

- c. Private Street – Brown background with white lettering.
- d. Post as shown on the Drawings.

PART 3 EXECUTION

3.01 GENERAL

- A. Unless otherwise noted or modified herein, all sections of MnDOT Spec. 2564, all sections of MnDOT's Standard Signs Manual, and Chapter 6 of MMUTCD shall apply.
- B. The fabrication of all signs and devices shall conform to MnDOT Spec. 2564 and the latest edition of the MMUTCD and the MnDOT Standard Signs Manual.
- C. The sign number designation indicated on the Drawings shall comply with applicable requirements of MMUTCD and MnDOT Standard Signs Manual.

3.02 CONSTRUCTION

- A. All signs and collars will be placed by the Contractor. Installation of street sign collars shall take place prior to placement of turf. In the case a sign collar is to be placed in concrete, the collar shall be installed prior to the placement of the concrete.
- B. Sign locations shown on the Drawings are only approximate. The final locations shall be determined in the field by the Engineer. Contractor is responsible for having all underground utilities located prior to installing all signposts. Provide Engineer 48-hour notice prior to sign installations to allow for adequate staking time.
- C. Fabricate, hole punch, and mount sign panels in accordance with the standard drawings in the MnDOT Standard Signs Manual. Date the back of each newly installed sign panel with the month and year using a thick permanent black marker pen or furnish and install inventory/I.D. stickers approved by the Owner.
- D. Install nylon washers between the bolt and the sign face (sheeting). Do not over tighten bolts to the point where the sign sheeting separates from the sign backing, which would be cause for rejection and replacement at no additional cost to the Contract. The nylon washers used to protect to sign face shall be 1/32 inch thick, have a maximum inside diameter of 3/8 inch, and outside diameter of 7/8 inch. There shall also be a stainless steel washer between the nylon washer and the bolt head.
- E. The bottom section of each signpost shall be mounted into the ground to a minimum depth of 3-1/2 feet. The lower section of post shall be at least 30 inches above the ground to allow for a 12-inch splice and a minimum clearance of 18 inches from the ground to the bottom of the top section of post. The splice of the upper and lower section posts shall be made with 2-5/16 inch stainless steel bolts with nylon insert lock nuts placed in the top and bottom holes of the overlap splice. Where 2 or more single post signs are mounted side by side, they shall be reinforced laterally by at least 2 post sections, bolted at each post, and located approximately at the quarter points.
- F. Install round post caps on top of all sign posts
- G. Install break off posts for all signs located in areas of concrete or bituminous pavement.

END OF SECTION

