

## **Section 2545. Overlay of Type B Guide Signs**

### **2545.01 DESCRIPTION.**

- A.** Overlaying of existing Type B signs. The signs to be overlaid will be identified in the contract documents.
- B.** This work is intended to be done by applying retroreflective sheeting, as specified in [Article 4186.03](#), to sheets of thin aluminum and applying to existing sign panels with pop-rivets.

### **2545.02 MATERIALS.**

- A.** Use retroreflective sheeting meeting the requirements of [Article 4186.03](#).
- B.** Ensure the thin aluminum sheets have a thickness of 0.063 inches  $\pm$  0.004 inches (1.6 mm  $\pm$  0.1 mm) and meet the requirements of ASTM B 209/B 209M, Alloy 6061-T6 with no specified limit for yield strength of bend test.
- C.** Apply the retroreflective sheeting, as specified in [Article 4186.03](#), to the thin aluminum sheets according to the sheeting manufacturer's recommendations.

### **2545.03 PREPARING PANELS, APPLYING ALUMINUM OVERLAY STRIPS, AND APPLYING LEGENDS.**

#### **A. Preparation of Panels.**

- 1.** Leave the sign panel to be overlaid in place on sign supports while the work is in progress. If proposing an alternate method requiring removal of the panel, submit the procedure to the Engineer for approval prior to beginning work.
- 2.** Remove all existing legends, symbols, shields, and borders from the sign panel without damage to the aluminum extrusions. Removed items become the property of the Contractor. Remove rivets protruding from the surface of the sign panel. Additional preparation work may be shown in the contract documents.

#### **B. Application of Aluminum Overlay Strips.**

- 1.** Apply the thin overlay aluminum strips with retroreflective sheeting in uniform width vertical strips no less than 1.5 feet (0.5 m) wide, except the last strip may be of lesser width. Form vertical joints by butting aluminum strips together as close as possible without overlapping.
- 2.** Edge molding on the panel is to remain in place. Indent the overlay strips 3/4 inch (20 mm) from the left and right edge of the sign face to allow the edge molding to grip the extrusions.
- 3.** With the sign 4 feet (1.2 m) or less in height, place the overlay strip horizontal in one piece.

4. Attach the overlay sheets with rivets. Use aluminum pull through, hollow blind rivets with a diameter of 1/8 inch (3 mm) and a brazier head with an appropriate grip range. The maximum spacing between rivets is to be 12 inches (0.3 m) both vertical and horizontal. The maximum spacing that the rivets may be indented is 3 inches (75 mm) from edge of the overlay strips.
5. Control color matching of pieces of overlay by maximum use of overlay from a single lot number on each sign. When overlay from different lots is to be used on a sign, match the colors. In matching, place the overlay pieces side by side and inspect visually in existing light from a 10 foot (3 m) distance perpendicular to the faces of the pieces. If a difference in color is perceptible at that distance, the pieces are not to be used on the same sign.

**C. Application of Legend.**

For legends to be placed on refurbished sign panels, use retroreflective sheeting applied to an aluminum base according to Type B sign layouts on the plans. Use detachable type legends. Use new material meeting the requirements of [Article 4186.05](#). Attach legends to the sign panel as specified in [Article 4186.06, D](#).

**D. Limitations.**

The sequence of overlay work and the time requirements for each sign are subject to the limitations shown on the plans.

**2545.04 METHOD OF MEASUREMENT.**

Measurement for Overlay Type B Guide Signs will be in square feet from measurements to the nearest 0.1 feet (square meters from measurements to the nearest 0.1 m) computed for the area of the vertical, front face of the signs, as specified in the contract documents, according to [Article 2524.04](#).

**2545.05 BASIS OF PAYMENT.**

- A. Payment for Overlay Type B Guide Signs will be the contract unit price per square foot (square meter) of sign area overlaid.
- B. Payment is full compensation for:
  - Sign panel preparation,
  - Furnishing and applying overlay sheeting material to existing sign panels, and
  - Furnishing and applying all legend, border, and symbols according to the contract documents.