

## SECTION 16636

## ALUMINUM SIGNS

## PART 1 DESCRIPTION

## 1.01 INSTALLATION

- A. Furnish, fabricate, and erect aluminum signs. Sign supports are provided for under other Items.

## 1.02 REPLACEMENT

- A. Replace existing signs on existing sign supports.

## 1.03 REFURBISHING

- A. Refurbish existing aluminum signs on existing sign supports.

## PART 2 MATERIALS

## 2.01 SIGN BLANKS

- A. Furnish sign blank substrates in accordance with the following requirements and in accordance with the types shown on the plans. Use single-piece sheet-aluminum substrates for Type A (small) signs and extruded aluminum substrates for Type G (ground-mounted) or Type O (overhead-mounted) signs.

## 2.02 SIGN FACE REFLECTORIZATION

- A. Reflecterize the sign faces with flat surface reflective sheeting. Furnish sheeting that meets the following requirements. Use reflective sheeting from the same manufacturer for the entire face of a sign.

## 2.03 SIGN MESSAGES

- A. Fabricate sign messages to the sizes, types, and colors shown on the plans. Use sign message material from the same manufacturer for the entire message of a sign.
  - 1. Ensure that the screened messages have clean, sharp edges and exhibit uniform color and reflectivity. Prevent runs, sags, and voids. Furnish screen inks in accordance with these requirements.
  - 2. Fabricate colored, transparent film legend and reflectorized sheeting legend from materials that meet these requirements.

3. Fabricate nonreflectorized-sheeting legend from materials that meet these requirements.
4. Furnish Type A aluminum signs required as part of a message in conformance with the plans and in accordance with this Item.

#### 2.04 HARDWARE

- A. Use galvanized steel, stainless steel, or dichromate-sealed aluminum for bolts, nuts, washers, lock washers, screws, and other sign assembly hardware. Use plastic or nylon washers to avoid tearing the reflective sheeting. Furnish steel or aluminum products in accordance with these requirements.
- B. When dissimilar metals are used, select or insulate metals to prevent corrosion.

#### 2.05 SAMPLING

- A. The Owner's Representative will sample materials.

### PART 3 CONSTRUCTION

#### 3.01 FABRICATION

- A. Sign Blanks
  1. Furnish sign blanks to the sizes and shapes shown on the plans and that are free of buckles, warps, burrs, dents, cockles, or other defects. Do not splice individual extruded aluminum panel.
  2. Complete the fabrication of sign blanks, including the cutting and drilling or punching of holes, before cleaning and degreasing. After cleaning and degreasing, ensure that the substrate does not come into contact with grease, oils, or other contaminants before the application of the reflective sheeting.
- B. Sheeting Application
  1. Apply sheeting to sign blanks in conformance with the recommended procedures of the sheeting manufacturer. Clean and prepare the outside surface of extruded aluminum flanges in the same manner as the sign panel face.
  2. Minimize the number of splices in the sheeting. Overlap the lap-splices by at least 1/4 in. Use butt splices for Type D and Type E reflective sheeting. Provide a 1 ft. minimum dimension for any piece of sheeting. Do not splice sheeting for signs fabricated with transparent screen inks or colored transparent films.

C. Sign Assembly

1. Assemble extruded aluminum signs in accordance with the details shown on the plans. Sign face surface variation must not exceed 1/8 in. per foot. Surface misalignment between panels in multi-panel signs must not exceed 1/16 in. at any point.

D. Decals

1. Code and apply sign identification decals.

3.02 STORAGE AND HANDLING

- A. Ship, handle, and store completed sign blanks and completed signs so that corners, edges, and faces are not damaged. Damage to the sign face that is not visible when viewed at a distance of 50 ft., night or day, will be acceptable. Replace unacceptable signs.
- B. Store all finished signs off the ground and in a vertical position until erected. Store finished signs 60 in. by 60 in. or smaller in a weatherproof building. Larger signs may be stored outside.

3.03 CLEANING

- A. Before shop inspection, wash completed signs with a biodegradable cleaning solution acceptable to the manufacturers of the sheeting, colored transparent film, and screen ink to remove grease, oil, dirt, smears, streaks, finger marks, and other foreign material. Wash again before final inspection after erection.

3.04 INSTALLATION

- A. Install signs as shown on the plans or as directed.

3.05 REPLACEMENT

- A. Remove the existing signs from the existing supports and replace with new signs, including mounting hardware, as shown on the plans.

3.06 REFURBISHING

- A. Refurbish existing signs by providing and installing new messages and mounting hardware. Install new reflectorized legend and supplemental signs as shown on the plans.

3.07 UNSALVAGEABLE MATERIAL

- A. Accept ownership of unsalvageable materials and dispose of in accordance with federal, state, and local regulations.

PART 4 MEASUREMENT

- A. Signs installed or replaced will be measured by the square foot of the sign face. Signs refurbished will be measured by each sign.
- B. This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal. Additional measurements or calculations will be made if adjustments of quantities are required.

PART 5 PAYMENT

- A. The work performed and materials furnished in accordance with this Item and measured as provided under “Measurement” will be paid for at the unit price bid for “Aluminum Signs,” “Replacing Existing Aluminum Signs,” or “Refurbishing Aluminum Signs,” of the type specified.

5.01 INSTALLATION

- A. This price is full compensation for furnishing and installing new signs and hardware; fabrication of sign panels; treatment of sign panels required before application of the background materials; application of the background materials and messages to the sign panels; furnishing and fabricating frames, wind beams, stiffeners, or required joint backing strips; furnishing bolts, rivets, screws, fasteners, clamps, brackets, and sign support connections; assembling and erecting the signs; preparing and cleaning the signs; and equipment, materials, labor, tools, and incidentals.

5.02 REPLACEMENT

- A. This price is full compensation for furnishing and installing new aluminum signs and hardware; removal of existing signs; fabrication of sign panels; treatment of sign panels required before application of the background materials; application of the background materials and messages to the sign panels; furnishing and fabricating frames, wind beams, stiffeners, or required joint backing strips; furnishing bolts, rivets, screws, fasteners, clamps, brackets, and sign support connections; assembling and erecting the signs; preparing and cleaning the signs; salvaging and disposing of unsalvageable material; and equipment, materials, labor, tools, and incidentals.

5.03 REFURBISHING

- A. This price is full compensation for modifying existing sign messages; removing and replacing existing route markers, reflectorized legend, or supplemental signs attached to the parent sign; preparing and cleaning the signs; furnishing sheeting and hardware; salvaging and disposing of unsalvageable material; and equipment, materials, labor, tools, and incidentals.

END OF SECTION