

GENERAL NOTES

FED RD DIVISION	STATE	PROJECT
8	OHIO	

PLAN NO.

89
120

DESCRIPTION

The work shall consist of removing all copy from the extrusheet aluminum signs and furnishing and erecting permanent overlays (including new reflective background and copy). The overlays will be directly attached to the aluminum extrusheet on the sign proper, the exit number panel, and the glare shield when needed. The Contractor is responsible for furnishing all material, labor, and equipment necessary to perform the work.

REMOVAL

In addition to the requirements of Item 630.12, the Contractor shall remove and dispose of all existing copy, including legend, border, shields and existing overlays. The Contractor's removal technique shall not damage the extrusheet aluminum and shall leave the surface of the extrusheet aluminum smooth, with no indentations or protrusions from fasteners, no aluminum burrs, and no scaling from reflective sheeting, which will impair the appearance or function of the overlays when attached. The cost of removing all existing copy shall be included under Item 630, Signs, Permanent Overlay.

MATERIAL

- Flat Sheet Aluminum and Fiberglass Reinforced Plastics - Overlays, shields and service symbol signs shall be fabricated from .040 inch flat sheet aluminum, ASTM B209, 6061-T6 in accordance with Item 730.11 or .075 inch fiberglass reinforced plastics (FRP) meeting the "Recommended Traffic Control Sign Panel Specification" published by the Society of the Plastics Industry. Overlays for glare shields may also be .075 inch FRP "tinted" to match the color of the sign under daylight viewing conditions per Item 630.04(6).
- Reflective Sheeting - shall be Type F or G as required in the plan and meet the requirements of Item 630.02.
- Nonreflective Sheeting - Glare shield overlays fabricated from .040 inch flat sheet aluminum shall be covered with nonreflective sheeting per Item 630.02 and Item 630.04(6).
- Copy
 - Legends and Borders - shall be white, demountable embossed copy with reflector units meeting the requirements of Item 630.02, except that when black is required for shields it shall be direct applied copy meeting the requirements of Item 630.04(5g) and when black is required for EXIT ONLY panels and FREEWAY/LANE ENDS signs it shall be demountable embossed copy meeting the requirements of Item 630.04(5b).
 - Service Symbol Signs - shall be demountable and fabricated from .040 inch flat sheet aluminum or .075 inch Fiberglass reinforced plastic covered with Type G white reflective sheeting in accordance with Item 630.04(3) and the legend shall be formed from reverse screened blue paste conforming to Item 730.22.
 - Shields - Interstate, U.S. and Ohio shields shall be fabricated in accordance with Item 630.04(5e), with the exception that the reflective sheeting shall be Type G.
- Fasteners
 - Overlays and Shields - shall be fastened to the extrusheet aluminum with Avex #1601-0619 rivets having a .188 inch diameter, .339 inch head diameter, .602 inch maximum length or #10, 3/4-inch self-drilling screws, fabricated from stainless steel alloy #410 or CHOBERT No. 1162-0617 rivets having a 3/16 inch nominal diameter, .339 inch head diameter and a .5313 inch maximum length.
 - Copy - including legends and borders shall be fastened to the overlays with AVEX No. 1661-0414 rivets having a .1265 inch diameter, .250 head diameter and a .452 inch maximum length or BRIV No. 1801-0513 rivets having 5/32 inch nominal diameter, .310 head diameter and a .339 inch maximum length.

OVERLAY FABRICATION

1. The number of individual overlays per sign shall be kept to a minimum and approximately equal in size with no overlay having a length or width dimension less than 18 inches, except as noted in item 6 below. The size of individual overlays shall be designed for safety during erection based on the equipment and method of erection by the contractor. Where sign dimensions will permit, vertical joints shall be used in lieu of horizontal joints.

2. The legend (i.e. word or symbol) on overlays shall be laid out according to the FHWA Standard Highway Signs Booklet and the ODOT Design Manual for Directional Guide Signs. The sign design and layout of service symbol signs shall be in accordance with the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways and the ODOT Standard Sign Design Manual.

The Contractor shall submit to the Director two sets of sign legend working drawings prior to fabrication. Sign legend working drawings submitted shall show all guide sign legend with copy type, character size and spacing; shall include reference and/or code numbers; and shall be in accordance with all other requirements of Item 630.03.

3. All copy including legends, borders, shields and service symbol signs, shall be shop mounted except for any copy which when attached would be common to two or more individual overlays.

4. A sign identification decal in accordance with Item 630.04(7) shall be applied by the sign fabricator to the front, bottom, left-hand corner of the left most overlay for each sign, in the area outside the border. Similarly, a sign identification decal in accordance with Item 630.04(7) shall be applied to the back, bottom, left-hand corner of the extrusheet aluminum by the Contractor.

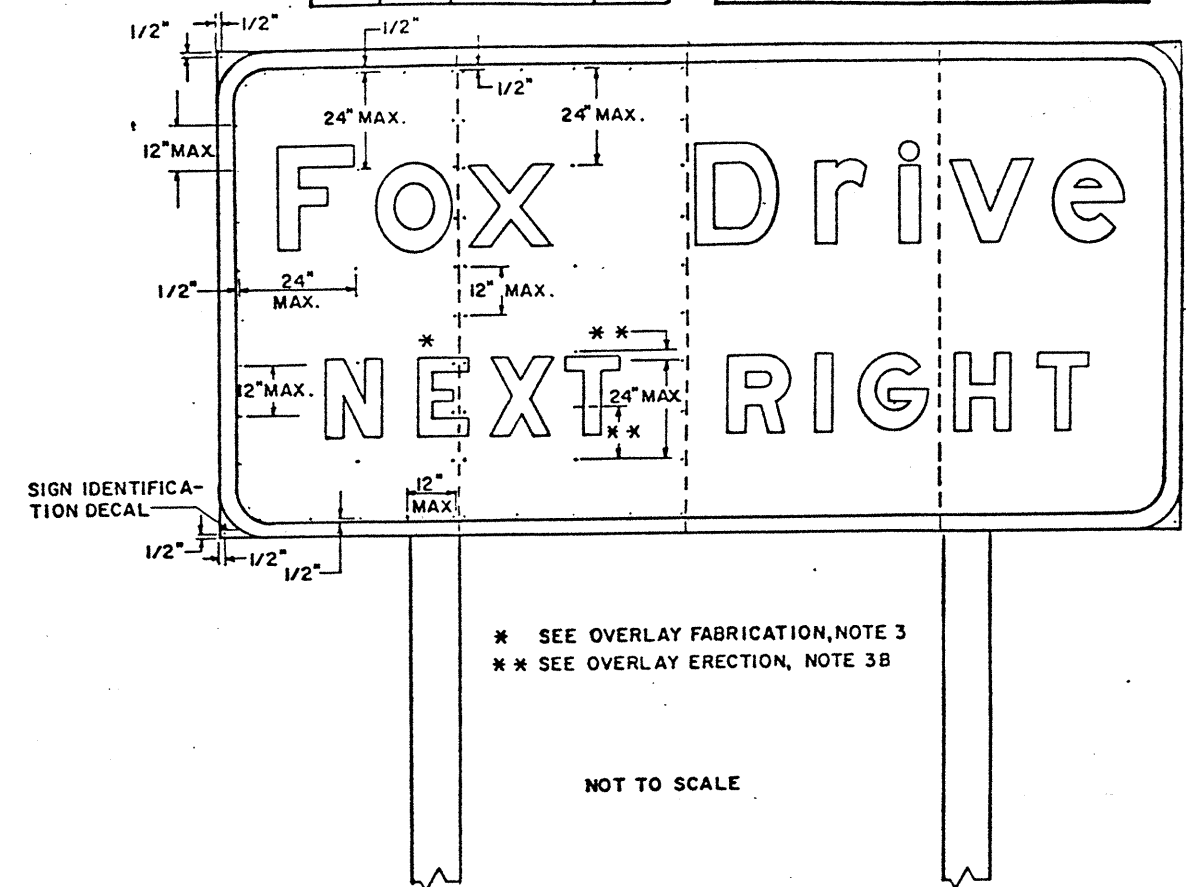
5. All overlays shall be packaged, shipped, stored and erected in such a manner that they are not scratched, dented, bent or damaged in any way which would reduce the effective life of the reflective sheeting or components of the copy. They shall be stored in such a manner that packaging paper or cardboard material does not become wet. If paper packaging material or slip sheeting becomes wet, the paper shall be removed from contact with sign faces before it dries to prevent damage to the reflective sheeting. Damage to the overlays will be cause for rejection.

6. Should it be found that a sign overlay does not evenly fit the existing extrusheet sign, the Contractor shall be paid under Item Special Signs Permanent Overlay Reworked, on a per square foot basis, for the additional work and material needed to reduce or enlarge the size of the overlay to conform to the following tolerances. A quantity of 100 square feet has been placed on the General Summary for this type of work, to be used as directed by the Engineer.

If the complete overlay is too small to cover the existing sign, it shall be centered on the existing extrusheet and additional overlay material of the same type shall be furnished and installed by the Contractor to cover the remaining portion of the sign. If the additional material measures more than 6 inches on a side the border shall be adjusted to the outside edge of the additional overlay material.

If the complete overlay when centered on the extrusheet overhangs the existing sign by more than 6 inches on a side, the Contractor shall rework the overlay using the incorrect overlay material to the greatest extent practicable so that it fits the existing sign within this tolerance.

Legend spacing shall comply with all overlay fabrication requirements stated above (Overlay Fabrication, paragraph 2) to the greatest extent practicable as determined by the Engineer.



OVERLAY ERECTION

- Sequence of Work - The Contractor may use more than one crew to perform the work; however, only one directional guide sign per direction per interchange or intersection may be overlaid at one time. Additionally, where two or more signs are placed on the same support, only one sign may be overlaid at one time.
- Repairing Existing Extrusheet Aluminum Surface - Dents and abrasions originating on the back of the extrusheet sign and protruding to the front shall be hammered flush with the remaining extrusheet surface prior to overlaying to avoid bulges, dimples, etc. in the overlay when erected.
- Fastener Spacing for Attaching Overlays to Extrusheet Aluminum
 - The maximum fastener spacing around the perimeter of each overlay shall be 12 inches. Fasteners shall be set back one-half inch from each edge of the overlay panel, except where borders exist. In this case, rivets shall be set back one-half inch from the inside of the border.
 - The maximum fastener spacing within the interior of each overlay shall be 24 inches. Fasteners used in attaching overlays to the extrusheet aluminum shall not be fastened through any demountable embossed copy, shields or service symbol signs.
 - An additional fastener shall be placed one-half inch from each edge at the four corners of the sign.
- Joints - All joints between individual overlays shall be butt jointed with no gaps between adjacent overlays.

METHOD OF MEASUREMENT

Permanent overlays will be measured as the area, in square feet, of overlay furnished and erected in place, and includes the removal and disposal of all existing copy. Permanent overlays reworked will be measured as the difference in the area, in square feet, between the oversized or undersized overlay and the final reworked overlay in place; this will include additional labor, overlay material, border, copy and fasteners as needed.

BASIS OF PAYMENT

Quantities of permanent overlays and "overlays reworked" measured as provided above, in place, complete and accepted, will be paid for under:

Item	Unit	Description
630	Square Foot	Signs, Permanent Overlay
Special	Square Foot	Signs, Permanent Overlay Reworked

BUREAU OF TRAFFIC DEPARTMENT OF TRANSPORTATION	
HIGHWAY SIGNING	DATE 10/6/82 12/2/82
PERMANENT OVERLAY PANEL INSTALLATION	12/20/82 8/1/84 10/22/85 8/26/86
PLAN DESIGN DRAWING	HS-1.00