

# 815 SIGNING NOTES

FED. RD. DIVISION	STATE	PROJECT	
5	OHIO		

LAKE COUNTY  
LAK.-90-3.56

## 815 Signs, Extrusheet Type, as per plan

The extrusheet panels shall be fabricated in accordance with Shts. 92 & 93 (Dwg. ECD-1, and ECD-2). Mounting clips shall be included as part of the signs, in the quantity specified on the above mentioned drawings.

Sign face background material shall be Type F reflective sheeting. The proposed background color and legend type shall be indicated on each sign layout shop drawing submitted for review. The following code shall be used:

CODE	COLOR DESCRIPTION
RSG	Green
RSB	Blue
RSW-1	Silver-White, Grade 1
RSY	Yellow
RSBR	Brown
RSO	Orange

The sign legend shall include letters, digits, route shields, symbols, borders, and outlines coded and described in accordance with the following schedule and indicated on each shop drawing submitted for review.

CODE	DESCRIPTION	COLOR
DCW	Demountable Reflective Unit Type	White
DCBK	Demountable Non-reflective Type	Black
DAW	Direct Applied Reflective Sheeting, Silver-White, Grade 2	White
DAB	Direct Applied Non-reflective Sheeting	Black

Interstate route shields mounted on signs shall be of reflective sheeting type, mounted as separate and complete units using Silver-White Grade 2 reflective sheeting, Type F, with reverse screen transparent red and blue overlay. Numerals and borders shall be white demountable reflective unit type copy.

Ohio and US route shields shall be mounted as separate and complete units, using Silver-White Grade 1 reflective sheeting, Type F, with black silk screen paste numerals.

Exit number panels, where required, shall include 2-pound drive post bracing (6-foot lengths) and mounting clips in accordance with Sht. 96 (Drawing TPS-1). The same method shall be used for supplementary signs such as NEXT EXIT MILES signs.

Extrusheet panel signs shall have a glare shield included as part of the signs, if the signs are to be illuminated. The glare shield shall be of the same material as the sign panels and shall be interlocked or bolted to the sign. The face material of the glare shield shall be non-reflective sheeting such as Scotchcal, Tedlar, or an approved equal. Notches shall be cut in the glare shields to the dimensions shown on the approved shop drawings. The area of the glare shield shall be measured in the same manner as extrusheet panel signs and shall be paid for at the unit price bid for extrusheet panel signs.

The unit price bid per square foot for Item 815 Signs, Extrusheet Type, as per plan, shall include payment for all required legend, hardware and all necessary equipment, labor, and materials necessary to furnish and erect the completed signs including packaging, delivery and storage when needed.

## 815 Signs, Flat Sheet Overlay Type

If specified in the plans, overlay signs shall consist of aluminum flat sheet (0.63 inch thick) with reflective sheeting of a color compatible with the color used on the underlying sign unless otherwise noted. Sign legend shall be similar to that specified for Aluminum Extrusheet Type signs. Shop drawings submitted for review shall be coded similar to requirements for Aluminum Extrusheet Type signs.

Overlay signs are to be shop mounted onto extrusheet signs. Method of attachment shall be by rivets of adequate length at one foot (1'-0") maximum spacing on the periphery of sections and complete overlay sheeting and at two feet (2'-0") maximum spacing over the entire surface area of the overlay sheeting. Overlay signs over 8 feet by 4 feet in size may be furnished in two sections rather than one.

The unit price bid per square foot for Item 815 Signs, Flat Sheet Overlay Type, as per plan shall include payment for all required legend, hardware, equipment, labor and tools necessary to furnish and mount the overlays as specified.

## 815 Signs, Flat Sheet Type, as per plan

The aluminum flat sheet sign blanks shall be fabricated in accordance with Sheet 95 (Drawing SBD).

Mounting hardware, i.e., bolts, washers, bearing plates, and nuts shall be included as part of the signs. The number and sizes furnished of each of these items shall conform with that shown on Sheets 95, 97 & 94 (Drawings SBD, SOW, and GMSS).

Sign face background material shall be reflective sheeting, Type F.

The typical sign legend shall be silk screened and include letters, digits, symbols, borders and outlines. The following color coding shall be shown on shop drawing submitted for review and approval:

CODE	COLOR
RSTR	Silver-White, Grade 2, with reverse screen transparent red
RSY	Yellow
RSW-1	Silver-White, Grade 1
RSTRB	Silver-White, Grade 2, with reverse screen transparent blue and red
RSTB	Silver-White, Grade 2, with reverse screen transparent blue
RSTG	Silver-White, Grade 2, with reverse screen transparent green
RSG	Green

For Type Code Signs, direct applied sheeting shall be used for legend including letters, digits, symbols, borders and outlines. The following color coding shall be shown on shop drawings submitted for review and approval:

CODE	DESCRIPTION
RSW-2	Reflective Sheeting, Type F (Silver-White, Grade 2)
SPBK	Silk Screen Paste (Black)
DAW	Reflective Sheeting, Direct Applied (Silver-White, Grade 2)
DAB	Non-reflective Sheeting, Direct Applied (Black)

The unit price bid per square foot 815 Signs, Flat Sheet Type, as per plan, shall include payment for all required legend, hardware, plus all necessary equipment, labor and tools to furnish and erect the signs including packaging, delivery and storage when needed.

## Sign Legends

Sign legend shall be in accordance with the American Association of State Highway Officials "Manual for Signing and Pavement Marking of the National System of Interstate and Defense Highways" 1970 edition. Sign lettering when indicated as a series type such as C, D, etc., shall be designed in accordance with the "Standard Alphabets for Highway Signs" published by the Federal Highway Administration. Copies of the above references are on file in the Department of Transportation, Bureau of Highway Design Services, 25 South Front Street, Columbus, Ohio 43215.

## Clear Coating of Reflective Sheeting:

The provisions of Section 815.10 apply except where pressure sensitive reflective sheeting is used. Pressure sensitive reflective sheeting shall not be clear coated and only the edge sealer is required for this type of sheeting.

## Colors:

Colors proposed and shown on each sign layout shop drawing submitted for review shall conform to those shown in the Ohio Manual of Uniform Traffic Control Devices for Streets and Highway, current edition, latest revision, or, in special circumstances, as may be indicated in the plans.

In addition to the requirements of Supplemental Specification 815, colors for reflective sheeting shall conform to the latest edition of Color Tolerance charts produced by the Federal Highway Administration.

## Processing of Sign Shop Drawings

- The State will furnish the following information to the contractor upon award of the contract:
  - Sign Design Layout Standards for Directional Guide Signs.
  - Traffic Standard Drawings for regulatory, warning, and route marker signs.
  - Special design layout criteria as applicable.
- The contractor shall submit 8 copies of individual shop drawings as follows:
  - Each separate sign message layout including legend size and spacing with reference and/or code number. Shop drawings for standard warning, regulatory, and route marker signs are not required unless specifically requested by the State in information furnished under Item 1 above.
  - Sign backing material designs showing overall dimensions, extrusheet panel widths, overlay panel widths, notches in glare shields, and number of mounting clips.
  - Proposed sign face colors including legend, border, and background of sign.

## 815 Packaging, Shipment, and Storage of Signs

In addition to the requirements of Supplemental Specification 815, the following requirements shall be adhered to:

### Extrusheet Signs:

- Signs shall be protected by crating or by temporary vertical bracing attached to signs to assure that the sign is rigid and protected during packaging, loading, shipment, and handling or storage of signs at the job site prior to erection. Vertical bracing (if signs are not crated) shall be at a minimum spacing of 6 feet and maximum of 8 feet on each sign with temporary mounting devices attaching signs to backbracing at a maximum of 2 feet intervals. Bracing shall extend a minimum of 3 inches below bottom of signs to assure that the bottom of sign is kept above ground during shipment or storage.
- Sign faces shall be protected by a plastic coated paper with the plastic surface adjacent to the sign face and heavy corrugated cardboard, blankets or equivalent covering over the plastic material attached to the sign.
- Signs shall be shipped completely assembled in 1 piece, except for signs over 8 feet in height which may be shipped in 2 pieces for assembly at the project site. Sign identification shall also be provided on the back of each extrusheet sign. This identification shall be inconspicuously located or in a detachable form.

Signs or sign components which are shipped with aluminum overlays mounted on the extrusheet panels shall have adequate identification to permit assembly and erection at the proper location without detaching the overlay.

### Flat Sheet Signs:

- Flat sheet signs of like size may be packaged together.
- Sign faces shall be protected by slip sheets which have plastic coated finish on the side adjacent to each sign face. Oily or waxy paper slip sheets are not acceptable.

### Storage of Signs:

Sign faces shall not become wet during shipment or storage. If it is necessary to store signs on or near the project site prior to erection, adequate protection by approved shelter or protective covering is required at all times to assure that signs are not exposed to weather elements.

Extrusheet signs shall be stored in a vertical position in crates or supported by temporary bracing above natural ground, with the top edge of sign up. Under no circumstances shall extrusheet signs be stored in a horizontal position.