



City of Elgin Sign Standards

Purpose

To establish positive guidelines for the manufacture, location, and installation of traffic, informational and warning signs in the City of Elgin. Requests for clarification should be addressed to the Streets Supervisor, Public Works. Guidelines for sign manufacture, placement and clearance shall be followed as set forth by the latest Manual On Uniform Traffic Control Devices Edition (hereafter referred to as the MUTCD).

Sign Panels

Manufacture:

All sign faces shall be applied to .080" aluminum blank which has been properly cleaned and degreased prior to the application of the sign face. All blanks shall have standard corner radii as set forth by the MUTCD. The sign back shall not be covered or painted in any way without consent of the Director of Public Works. Holes shall be drilled and deburred to provide clearance for a 5/16" bolt and space for use on standard traffic sign posts. The words "City of Elgin" shall be stamped on all blanks.

Sign Sheeting:

Signs shall be sheeted with 3M materials. Either 3M Electro-Cut Film or silk-screening is permitted although silk-screened signs shall have permanent, protective overlay film (3M Series 1160) applied to resist graffiti. The words "City of Elgin" and date of manufacture in month/year code shall be visible in the lower right hand corner of the border using a maximum of 3/8" letters.

Sign Location:

It is the City's intent to minimize the number of sign posts within the City limits. Therefore, care should be taken to install signs on existing structures whenever possible. These structures include street light poles, traffic signal poles, and utility poles. Care should also be taken to ensure that signs are still placed in accordance with all applicable MUTCD standards. Signs shall be placed at MUTCD minimum distance or per City Engineer approval. Strict adherence to section 2A-22 and 2A-23 must be maintained. In instances of a curb-side sidewalk less than 5' wide, the post should be placed immediately behind the sidewalk. In cases where the sidewalk is wider or circumstances prevent it, the post shall be mounted in a Poz-Loc socket through a cored hole and held in place with a wedge (southwestern Pipe part numbers 6601 and 6603 respectively). Mortar should be applied to fill any voids between socket and sidewalk. In the event that core drilling is not feasible, an aluminum surface base as previously described may be used.

Stop Signs:

Elgin has adopted a 30" x 30" (for single lane) and 36" x 36" (for 2 or more lanes) Diamond Grade DG3 stop sign protected by 3M 1160 Overlay Film as its standard. The common installation is one stop sign on each pole. All-way placards placed below the stop sign are ASTM Type III Sheeting, if applicable. MUTCD figure 2A-2 illustrates the required setback for stop signs prior to the crosswalk. A minimum of 72" must be maintained between the post and preceding edge of the crosswalk whether it is painted or not.

Warning Signs:

Due to the nature of their message, warning signs shall be made using Diamond Grade DG3 material and shall be placed in accordance with the Table 2C-4 of the MUTCD. Care must be taken to match the correct message with road conditions.

Street Signs:

Except where later noted, all street name signs shall use a 9" tall blank utilizing Diamond Grade DG3 6" upper/lower case Highway Gothic "C" letters on a reflective green field with a border. Road type designations, i.e. "Rd", "St", "Ln", etc. shall be of two letters except where longer abbreviations are necessary, such as "Blvd".

Hardware:

- All signs are to have a nylon washer between the face of the sign and the fastener.
- Signs shall be mounted using a combination of stainless steel and aluminum fasteners and brackets.
- Double-face signs shall be mounted using a Vulcan VS-318 double bracket with SS 5/16" - 18 x 3/4" Torx button pin head bolts and lock washers.
- Signs will be mounted to wooden utility poles using SS 5/16" x 1 1/2" or 2" lag bolts.
- Signs of less than 9 sq. ft. that are banded to poles shall use SS 3/4" x .025 strapping, SS straight leg brackets and SS 5/16"-18 x 3/4" Torx button pin head bolts with lock washers.
- Signs over 9 sq. ft that are banded to poles shall use Signfix medium extruded channel (code #MAC MIL) and Signfix SS Universal Channel Clamps.
- Single-face signs on 2" posts shall use TN31 (5/16-18) Tufnut Theft Resistant Nuts with TB25 (5/16x2.5") Tufbolt Neckless Bolts.
- Nine inch street name blades are either mounted onto 2" posts illustrated or mounted to metal light/traffic poles with a B36 Wing Bracket and steel shank rivets.

Cantilever:

- VS-1C Cantilever
- 14 1/2" Long Arm
- For Flat and Extruded Blades
- All Aluminum
- New Item: VS-1 Extension
 - Extends arm to 29" long
- VS-B36 Metro Cantilever (For use with 9" or larger blanks)
 - 36" Extra Long arm
 - No Hardware Included-Must Field Drill
 - All Aluminum
 - Attach Sign Using Steel Shank Rivets

Basis of Payment:

- This work will be paid for at the contract unit price per Each for STREET NAME SIGN ASSEMBLY - 9"
- This work will be paid for at the contract unit price per Each for STOP SIGN.
- This work will be paid for at the contract unit price per SQ FT for SIGN PANEL.

Traffic Post

Sign Posts:

Posts shall be Telespar Qwik-Punch Square Sign Posts (2" x 2"), galvanized steel tubing welded to A.S.T.M. specification A-525, having a wall thickness of .083 and weighing approximately 2.16 lbs per foot. Posts shall be powder-coated using Glidden Black applied to a minimum thickness of three mils over Bondrite "37" zinc phosphate pre-treatment. Approved vendors include:

TAPCO 800 Wall St. Elm Grove, WI 53122 630-561-5495	TCP 31 W. 351 North Ave. West Chicago, IL 60185 630-293-0026	Hwy Technologies 880 N. Addison Rd. Villa Park, IL 60181 630-932-4600
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No retroreflective material shall be used on the sign support.

Specification Traffic Post:

- Outside Diameter: Shall be 2 inches
- Wall Thickness: Shall be .083
- Weight Per Foot: Shall be 2.16
- Length: Shall be 10ft. - 11ft. - 12ft. - 13ft. - 14ft.

Post:

Post shall be welded steel tubing conforming to A.S.T.M. A-513 specifications made from hot dipped galvanized steel sheet conforming to A.S.T.M. specifications A-525 or the tube may be hot dipped galvanized to obtain a zinc weight of 1.25 oz/ft.2 of sheet, which is a G-90 commercial weight.

Coating Properties:

Polyester powder coating of the post shall be Glidden P616 Black. The coating shall be applied over the galvanized post to minimum dry mil thickness of 3.0 mils. The tubing shall be properly cleaned and pre-treated to achieve the coating properties below. The following properties are based on the application of 3.0 mils of TGIC cured thermosetting polyester powder coatings applied over Bondrite "37" zinc phosphate pre-treatment galvanized steel.

Damage Resistance

Pencil Hardness	H
Gardner Impact	160 Inch Pounds
Flexibility	Pass 1.8" Mandrel
Adhesion	No failure with 1/16" cross hatch

Corrosion Resistance

Salt Spray	1/16" Creepage at 1000 hours (ASTM B 117 - Scribed)
Humidity Cabinet	1000 hours - no blisters (ASTM D-1735)

Weathering Resistance

Weathermeter	Minimal change after 100 hours
ASTM G26	No loss in adhesion Excellent color retention; Minimal chalking

Chemical Resistance

Substance Effect on Coating	
Gasoline	None
Alcohol	None
Sodium Hydroxide	None
Ammonium Hydroxide	None
Nitric Acid	None
Sulfuric Acid	None
Mineral Spirits	None

Post Anchors:

Post will be anchored into the ground using the following methods:

- Direct into soil - Tapco V-Loc, part #34-3 with #34-4 wedge
- Through concrete - Poz Loc Socket #6601 with wedge #6603 as supplied by Southwestern Pipe

The POZ-LOC Sign Post Anchor System is a tubular socket system designed to be used for Type I small sign supports. The assembly consists of:

- A galvanized 2-3/8" O.D. traffic post available in various wall thicknesses.
- A tubular socket 2-7/8" O.D. x 12 GA wall thickness x 27" long. The socket is pointed to facilitate driving into the ground and accept a standard 2-3/8" O.D. sign post, which inserts into the socket.
- A wedge which is driven between the socket and the post and functions to lock the post into the socket.
- Sign mounting brackets which clamp onto the post. These brackets allow the sign to be mounted at any angle or front and back of the post. Pre-punched 1/2" holes in the traffic post may be substituted for brackets.

Should the post be damaged, or otherwise need to be removed, the wedge can be removed with a wedge puller, another post inserted, and the wedge replaced without disturbing the footing. The use of a special wedge puller discourages vandalism of the sign system. This system does not require any nuts or bolts for installation of the socket system.

*The POZ-LOC Sign Post and Socket System meets all the requirements of the present FHWA 2200# auto crash test and also the 1800# auto crash test criteria. The POZ-LOC system is approved by the FHWA.

- Bolted to Sidewalk - 2 1/2" x 10" aluminum tube passing through and welded to a 6" x 1/4" aluminum plate. Plate is to be clearance drilled at each corner to accept a 1/2" Hilti Quick-bolt. Post is to be attached to the base using two aluminum drive rivets opposed to each other at 90 degrees.

Sign Removal

All sign panels shall be removed from the posts, the hardware and the sign posts shall be completely removed. All items shall be transported to the Elgin Public Works Building. This work shall be coordinated no less 48 hours prior to the anticipated delivery with:

**Elgin Public Works
Traffic Division
1900 Holmes Road
Elgin, IL 60123
847-697-3160**

The new sign panels shall be completely installed prior to removal of the existing assembly. Duplicate assemblies shall not exist for periods in excess of 24 hours

Basis of Payment:

This work will be paid for at the contract unit price per Each for SIGN TO BE

PROJ. MGR.:	
PROJ. ENG.:	
DRAWN BY:	M.L.H.
CHECKED BY:	
DATE:	01-13-04
SCALE:	N.T.S.

**SIGNAGE
DETAILS**

CITY OF ELGIN

**ENGINEERING
DEPARTMENT**



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