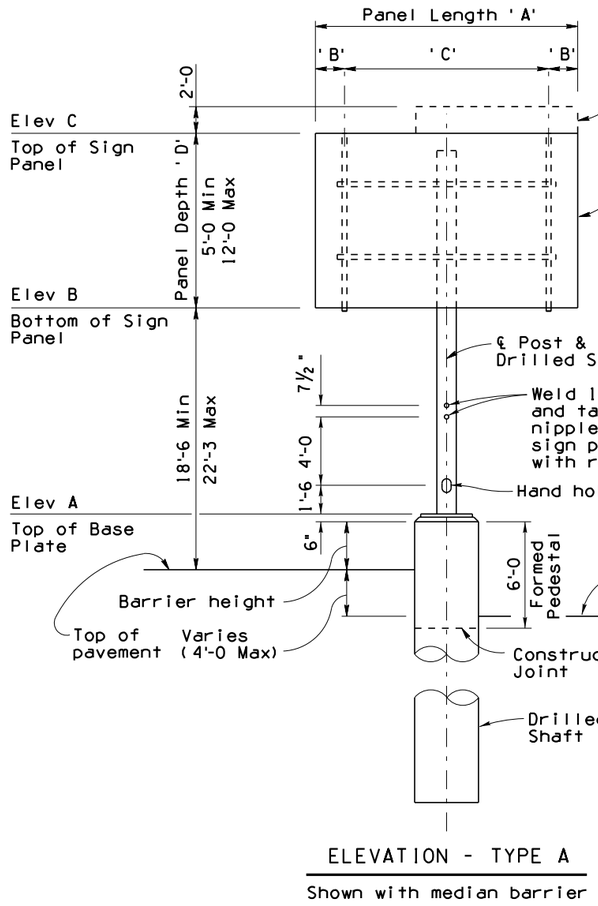
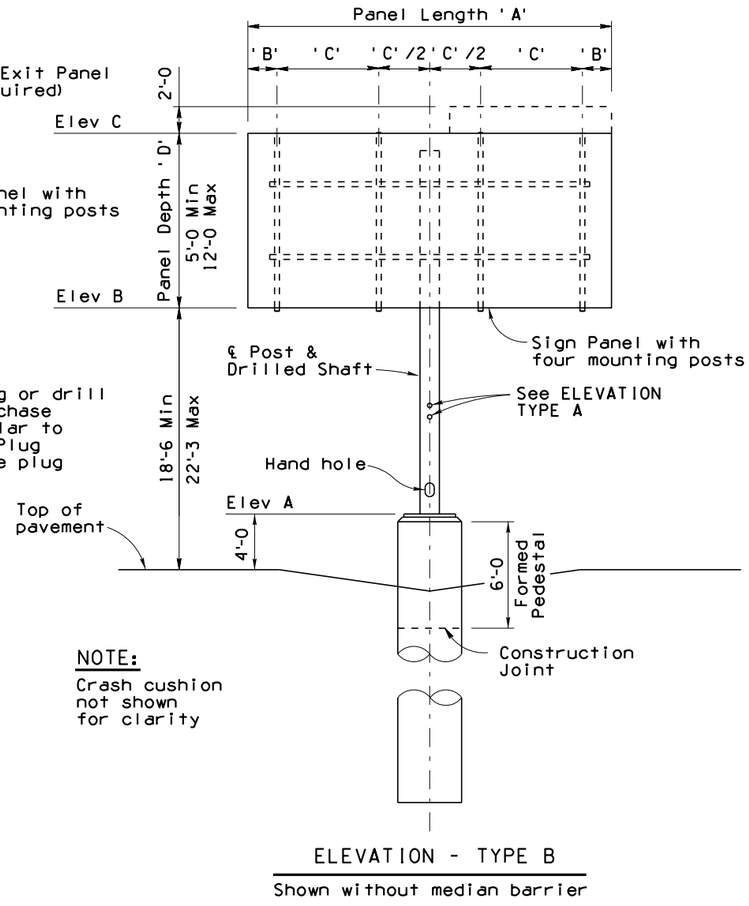


ELEVATION - TYPE A

Shown with median barrier



NOTE:
Crash cushion not shown for clarity

ELEVATION - TYPE B

Shown without median barrier

		Dimensions			Nominal Pipe Dia inches	Pipe Wall thickness inches
		'A'	'B'	'C'		
Type A	2 Mounting Posts	8'-0	1'-6	5'-0	14	0.938
		9'-0	1'-9	5'-6	14	0.938
		10'-0	2'-0	6'-0	14	0.938
		11'-0	2'-0	7'-0	14	0.938
		12'-0	2'-3	7'-6	14	0.938
		13'-0	2'-6	8'-0	14	0.938
Type B	4 Mounting Posts	14'-0	1'-0	4'-0	16	1.031
		15'-0	1'-0	4'-4	16	1.031
		16'-0	1'-0	4'-8	16	1.031
		17'-0	1'-0	5'-0	16	1.031
		18'-0	1'-0	5'-4	16	1.031
		19'-0	1'-0	5'-8	16	1.031
		20'-0	1'-6	5'-8	16	1.031
		21'-0	1'-6	6'-0	20	0.750
		22'-0	1'-6	6'-4	20	0.750
		23'-0	1'-6	6'-8	20	0.750
		24'-0	1'-6	7'-0	20	0.750
		25'-0	2'-0	7'-0	20	0.750

PAY ITEM NOTES:

Pay Item for sign structure foundation includes the drilled shaft and the formed pedestal on drilled shaft and the anchor bolt assembly.

Item No. 6060163 SIGN STRUCTURE (MEDIAN)(TWO SIDED)
Measure: Each

Item No. 6060239 FOUNDATION FOR SIGN STRUCTURE (MEDIAN)
Measure: Each

Drilled shaft locations and top of drilled shaft elevations shall be field verified by the Contractor prior to fabrication of posts

GENERAL NOTES:

Construction Specification - Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, latest Edition.

Design Specifications - AASHTO Standard Specification for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 6th Edition (2013) with 2015 interim Revisions

All tubular structural cantilever pipe shall be welded or seamless steel pipe and shall conform to ASTM Specification (Fy = 35,000 psi):

A-53	Grade B,	Type E or S
A252	Grade 2,	Type E or S
A106	Grade B,	Type S only
API 5L	Grade B,	Type E or S
API 5LX	Grade X42,	Type E or S

All other Structural Steel shall conform to ASTM Specification A36 unless noted otherwise.

All bolts shall conform to ASTM Specification F3125 GR A325.

All bolts, nuts and washers shall be galvanized in accordance with the requirements of ASTM A153. All other steel shall be galvanized after fabrication in accordance with ASTM A123.

Welding of structural tubing shall conform to the requirements of the American Welding Society, Structural Welding Code, D1.1, latest Edition.

All welding shall be continuous unless noted otherwise. All butt welds shall be full penetration using prequalified welding procedures and shall be tested by ultrasonic testing. All butt welds shall be ground flush, full width.

Grinding striations shall be parallel to the length of member.

The Column to base plate weld (WELD DETAIL A) shall be tested by ultrasonic testing. Any detected shallow toe cracks shall be repaired in the shop.

All Concrete shall be Class "S" (f'c = 3500 psi).

Reinforcing steel shall conform to ASTM Specification A615. All reinforcing shall be furnished as Grade 60.

All bends and hooks shall meet the requirements of AASHTO LRFD Article 5.10. All bend dimensions for reinforcing steel shall be out-to-out of bars. All placement dimensions for reinforcing steel shall be to center of bars unless noted otherwise.

Project Plans shall provide an elevation view of each sign structure with location (station and offset), Elev A, Elev B, Elev C, and Sign panel dimensions ('A', and 'D').

See Project Plans for length and location of exit panels, if required.

Dimensions shall not be scaled from drawings.

Note to Designer:
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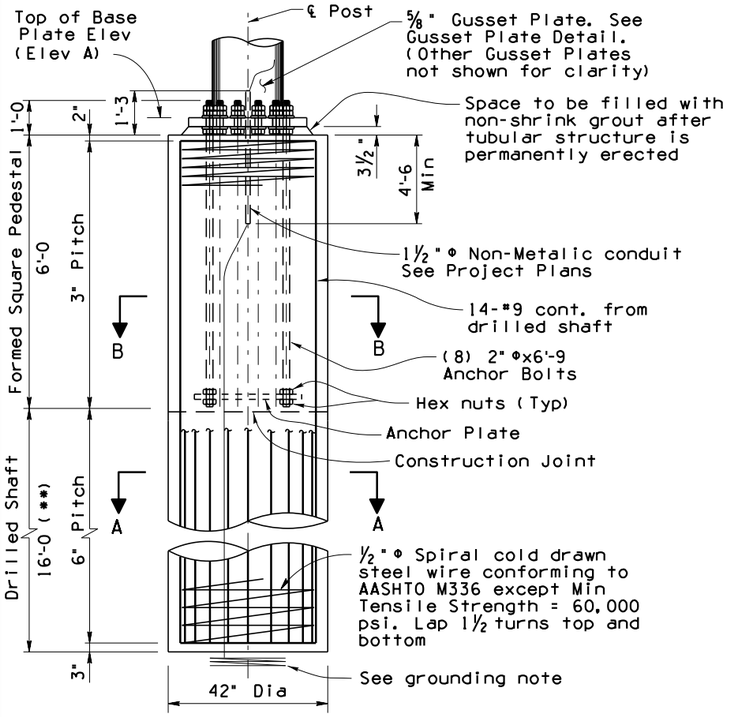
PRIOR DISTRIBUTION DATE 11/04

STANDARDS ENGINEER A. ALZUBI RECOMMENDED FOR APPROVAL	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STANDARD DRAWING
GROUP MANAGER D. EBERHART APPROVED	MEDIAN SIGN STRUCTURE (TWO SIDED) ELEVATION AND NOTES
STANDARDS COMMITTEE APPROVED FOR DISTRIBUTION 04/19 DATE	DRAWING NO. SD 9.01 (1 of 5)



(**) Drilled shaft depth is based on uniform soils condition with unit weight=110 pcf, friction angle phi=29 degrees, modulus of subgrade reaction K=50 psf/ft. Depth or design should be revised by the Project Engineer of Record for weaker soils or rock embedment, and shown in the project plans.

FOUNDATION DETAILS

NOTES:

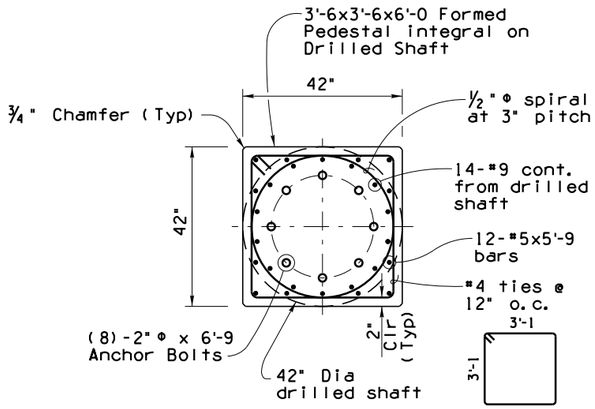
All anchor bolts shall conform to ASTM F1554 Grade 55 Specifications. The upper 1'-0 shall be threaded and the upper 1'-2 galvanized in accordance with the requirements of ASTM A153. Anchor bolts made of rods shall have 1'-0 thread at bottom with double nuts for anchor plate.

Provide 2 Hardened Steel washers, 2 Hex nuts and one leveling nut for each bolt. At final position of post all top and bottom nuts of anchor bolts shall be wrench tightened against base plate.

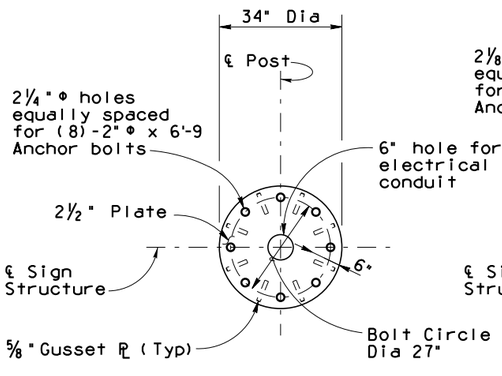
Drilled shaft shall be class 'S' concrete and placed against undisturbed material or compacted embankment.

Provide bolt template during installation of anchor bolts. the bolt template shall be fabricated of ¼" thick (Min) steel plate, similar to anchor plate details, and both the bolt template and the anchor plate shall be drilled to match base plate.

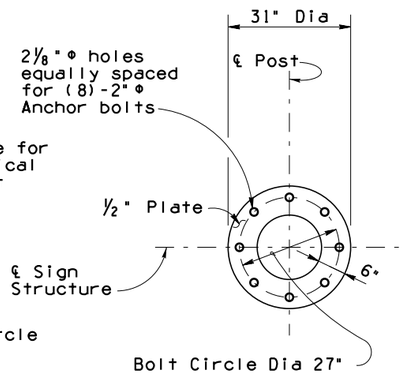
A 25 ft. coil of no. 4 AWG bare copper conductor shall be installed before concrete is poured and connected to pole grounding screw in the hand hole.



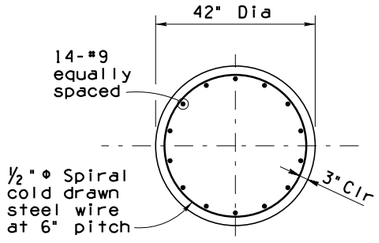
SECTION B-B



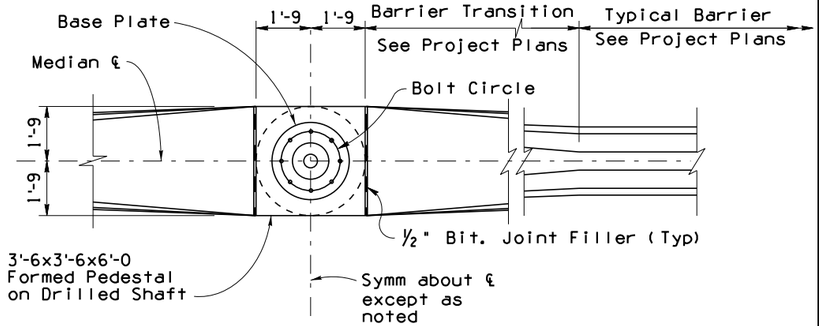
BASE PLATE DETAIL



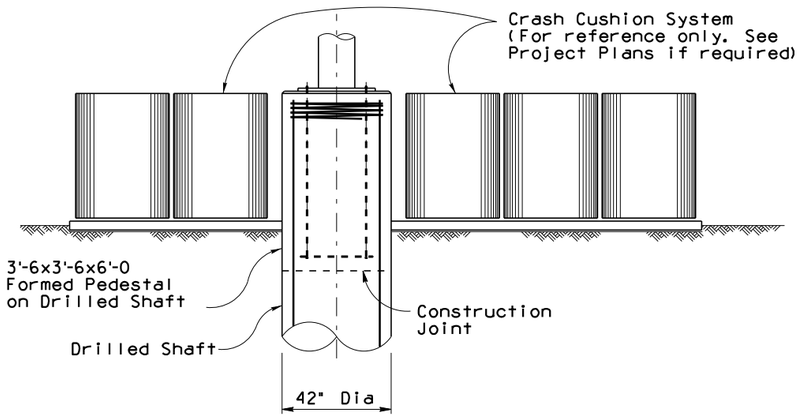
ANCHOR PLATE DETAIL



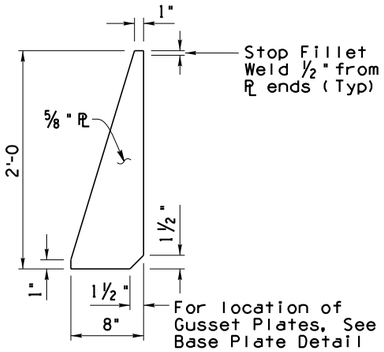
SECTION A-A



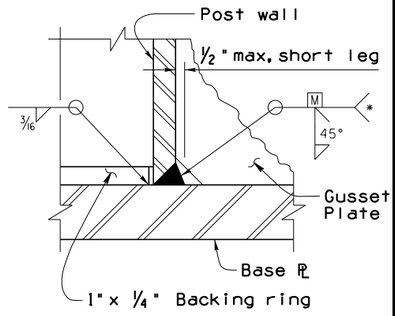
PLAN WITH BARRIER



ELEVATION WITHOUT BARRIER



GUSSET PLATE DETAIL



WELD DETAIL A

* Preheat per AWS requirements

STANDARDS ENGINEER A. ALZUBI RECOMMENDED FOR APPROVAL GROUP MANAGER D. EBERHART APPROVED STANDARDS COMMITTEE APPROVED FOR DISTRIBUTION 04/19 DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STANDARD DRAWING MEDIAN SIGN STRUCTURE (TWO SIDED) FOUNDATION DETAILS DRAWING NO. SD 9.01 (2 of 5)

PRIOR DISTRIBUTION DATE 04/00

Note to Designer:
The information presented in this Standard Drawing has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability by a licensed professional engineer. Contents within the inner border line shall not be altered.

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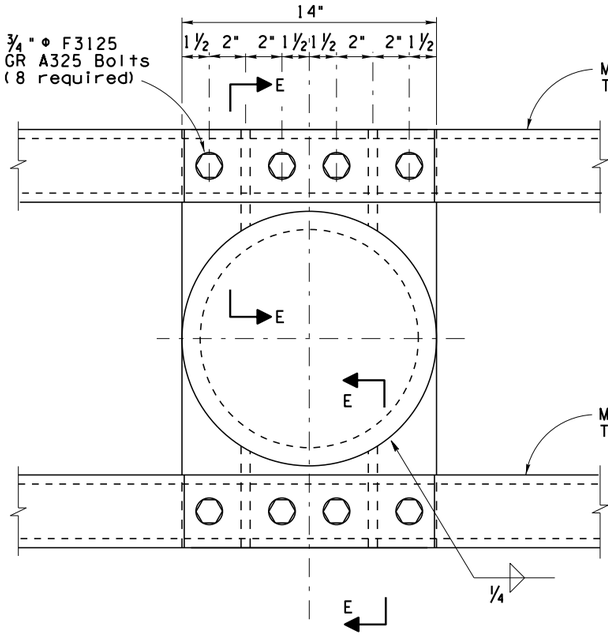
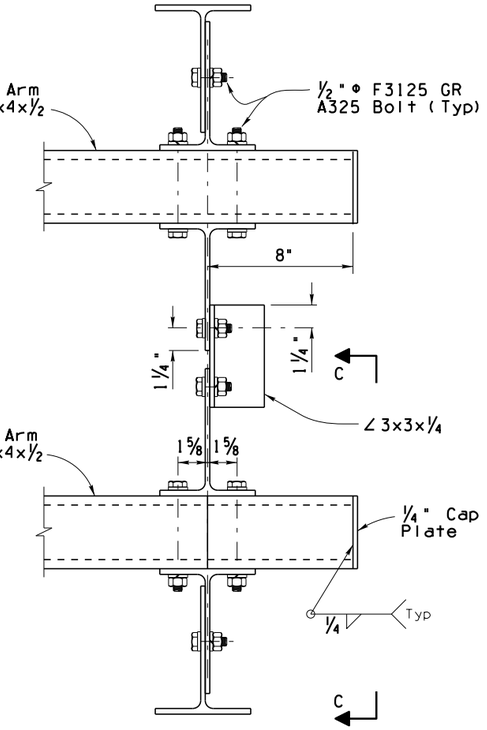
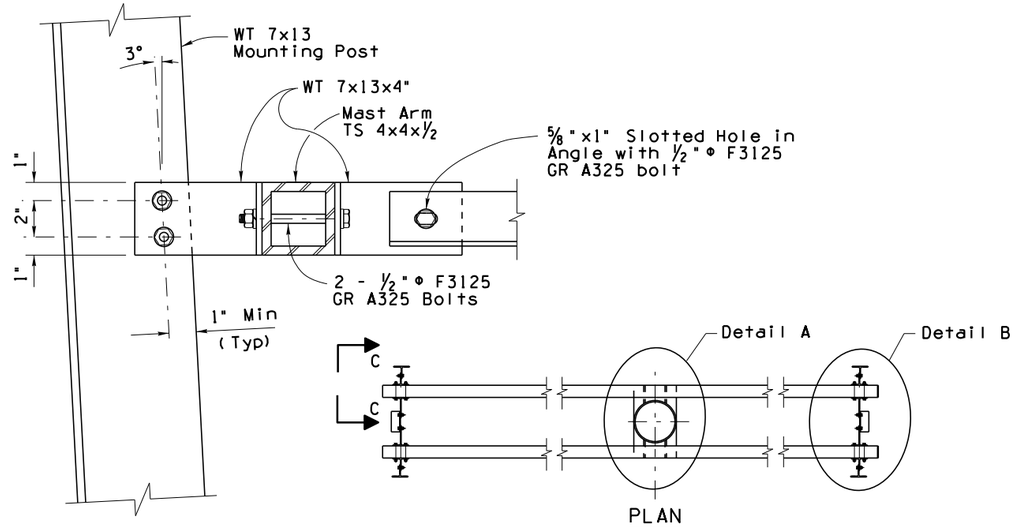
PRIOR DISTRIBUTION DATE 04/00



DETAIL A

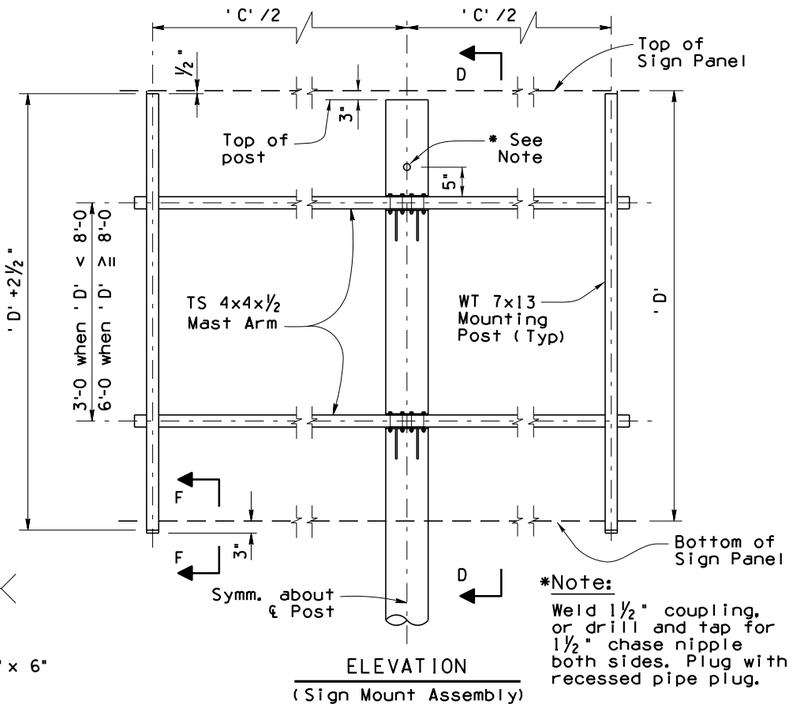


DETAIL B



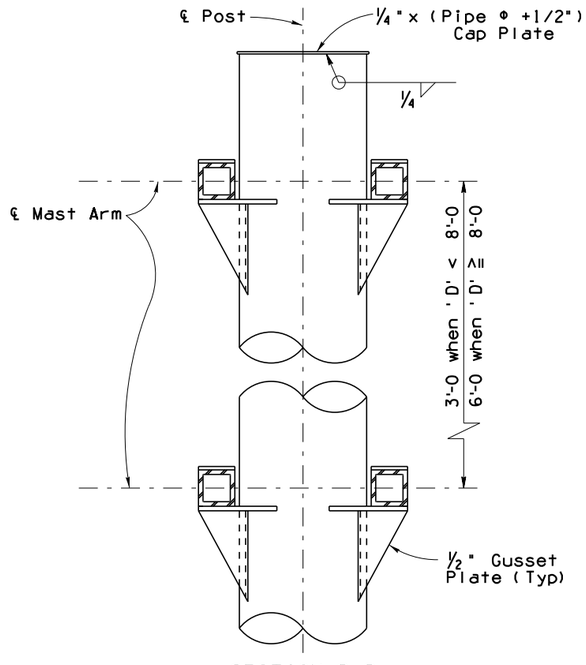
SECTION C-C

PLAN

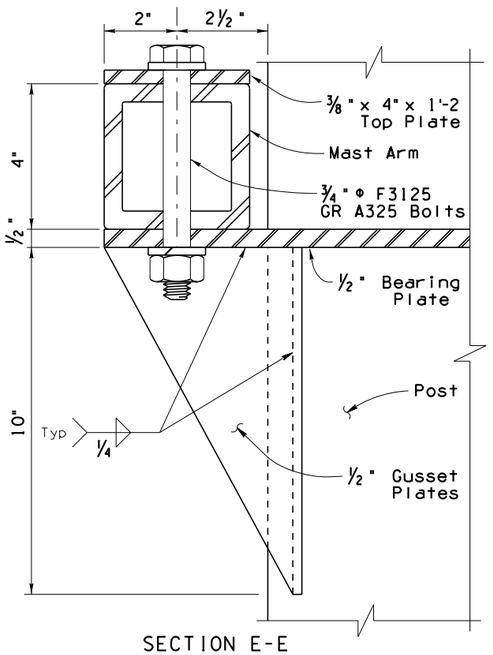


ELEVATION
(Sign Mount Assembly)

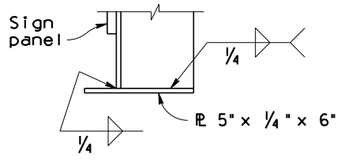
*Note:
Weld 1½" coupling, or drill and tap for 1½" chase nipple both sides. Plug with recessed pipe plug.



SECTION D-D



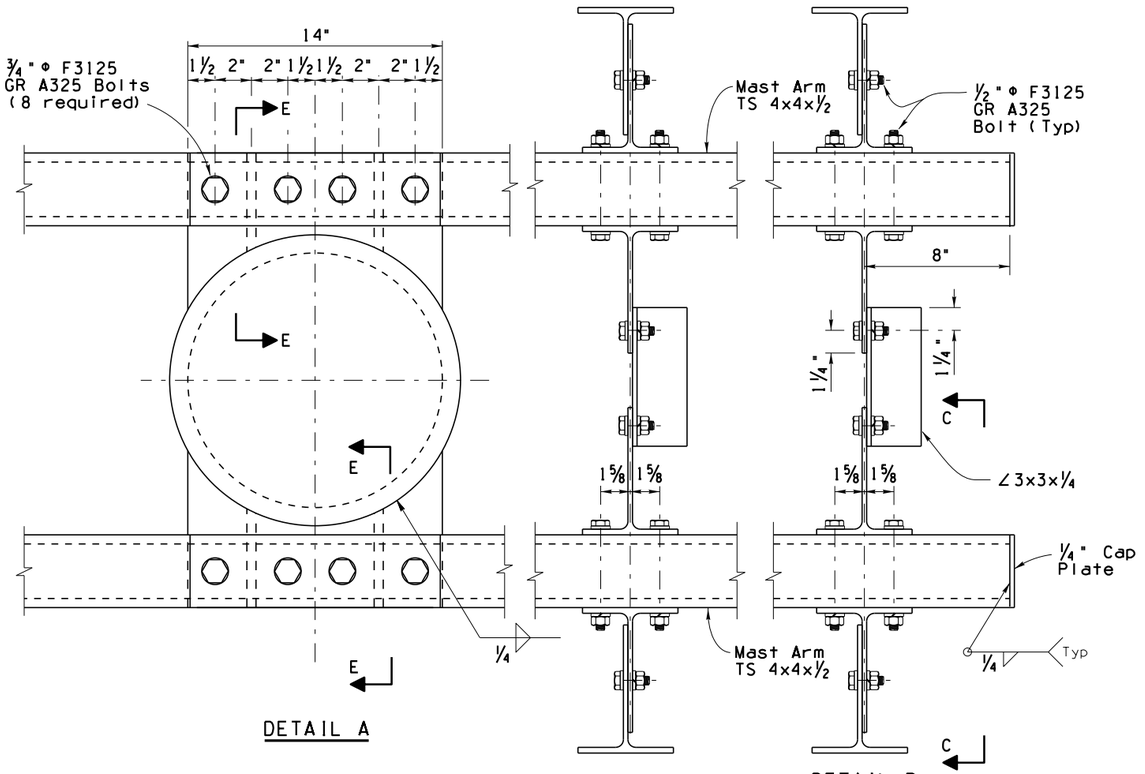
SECTION E-E



VIEW F-F

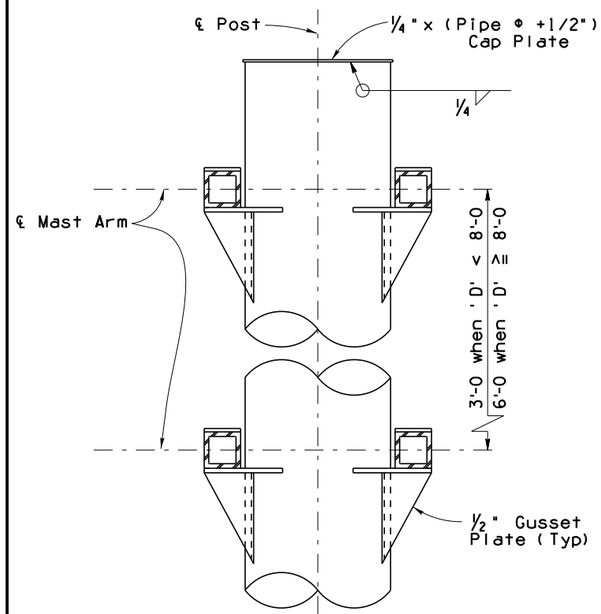
TYPE A FRAME

STANDARDS ENGINEER A. ALZUBI RECOMMENDED FOR APPROVAL GROUP MANAGER D. EBERHART APPROVED STANDARDS COMMITTEE APPROVED FOR DISTRIBUTION 04/19 DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STANDARD DRAWING MEDIAN SIGN STRUCTURE (TWO SIDED) TYPE A SIGN MOUNT ASSEMBLY DRAWING NO. SD 9.01 (3 of 5)

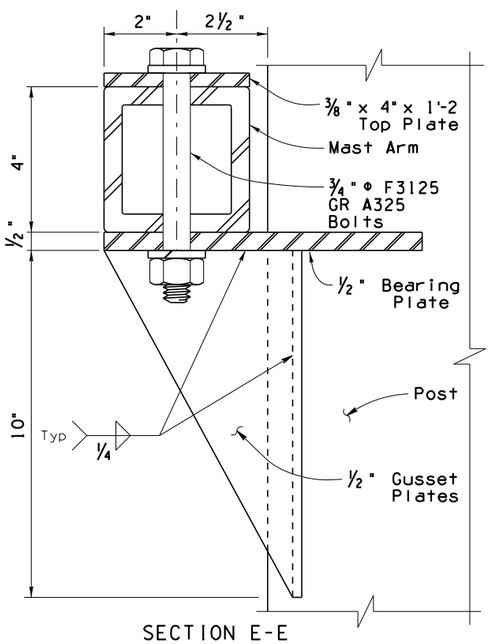


DETAIL A

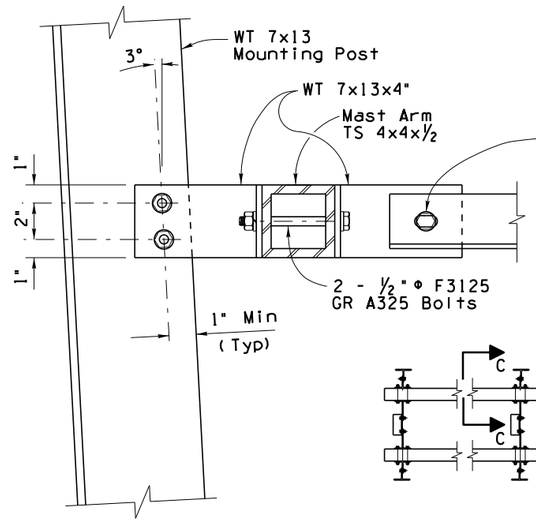
DETAIL B



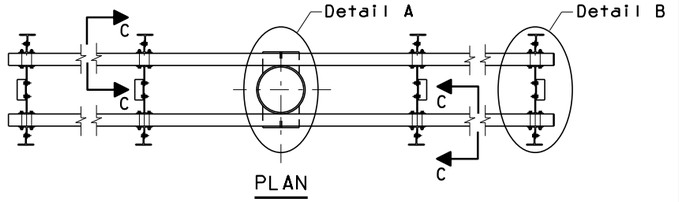
SECTION D-D



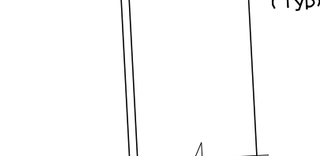
SECTION E-E



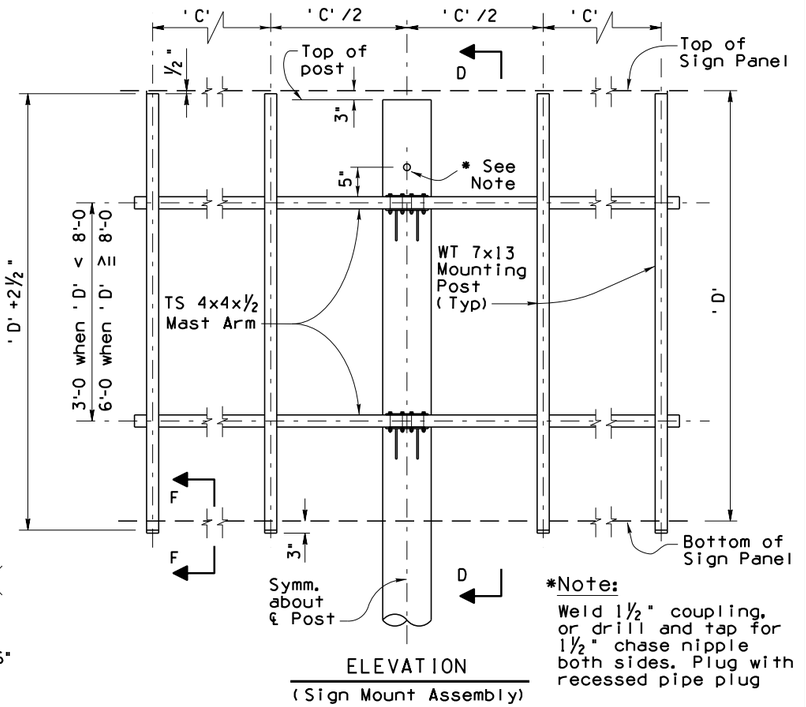
SECTION C-C



PLAN



VIEW F-F



ELEVATION
(Sign Mount Assembly)

*Note:
Weld 1½" coupling, or drill and tap for 1½" chase nipple both sides. Plug with recessed pipe plug

TYPE B FRAME

STANDARDS ENGINEER A. ALZUBI RECOMMENDED FOR APPROVAL GROUP MANAGER D. EBERHART APPROVED STANDARDS COMMITTEE APPROVED FOR DISTRIBUTION 04/19 DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STANDARD DRAWING MEDIAN SIGN STRUCTURE (TWO SIDED) TYPE B SIGN MOUNT ASSEMBLY DRAWING NO. SD 9.01 (4 of 5)

PRIOR DISTRIBUTION DATE 04/00

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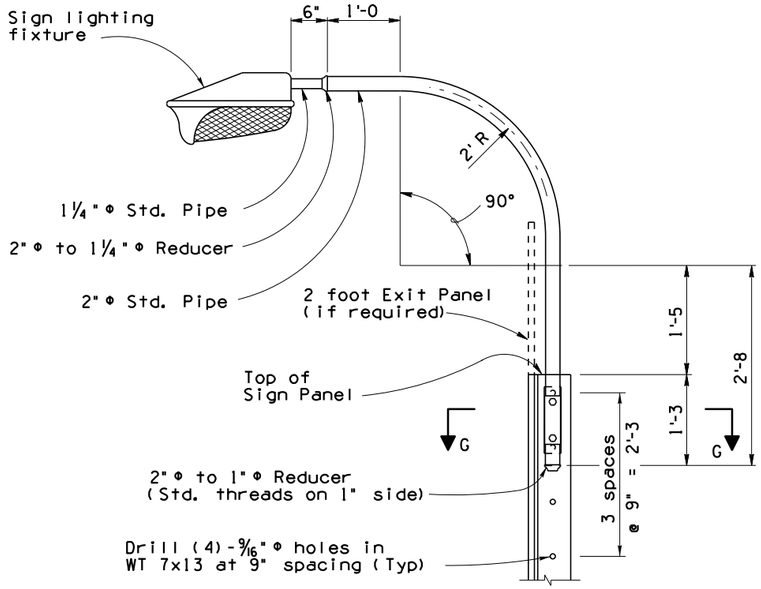
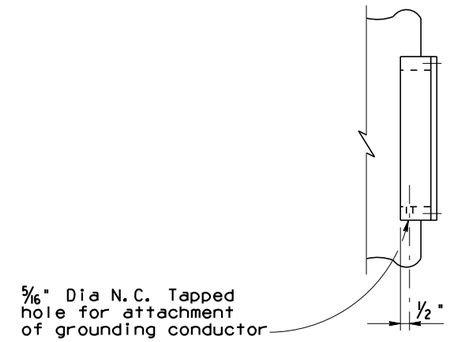
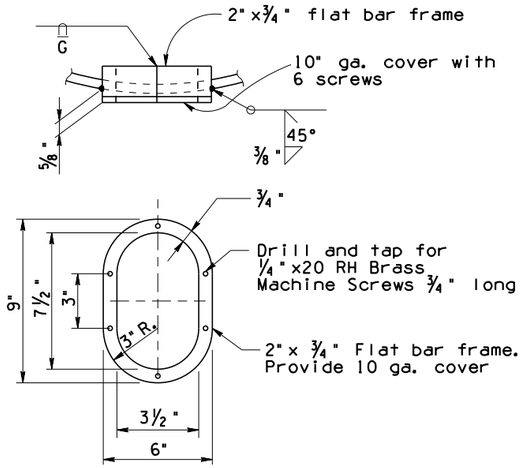
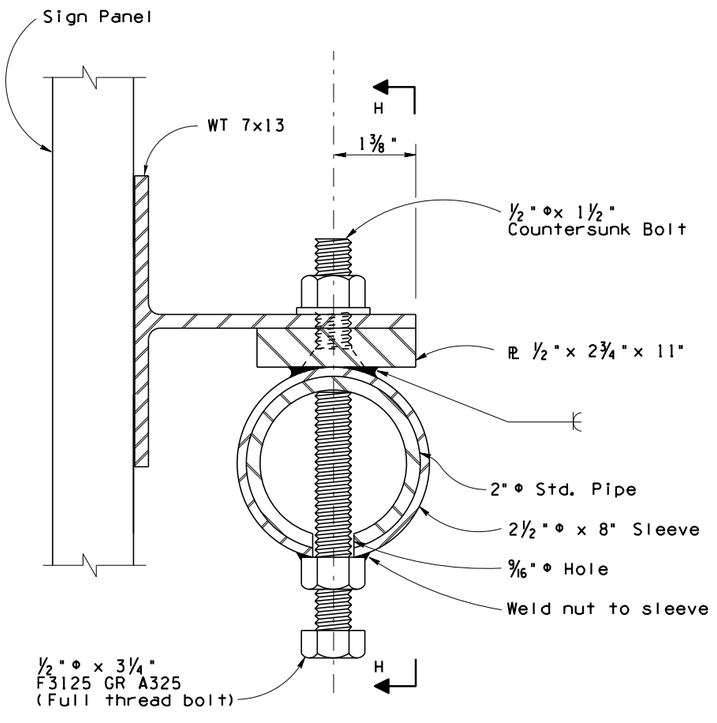


OVERHEAD LIGHT SUPPORT DETAIL

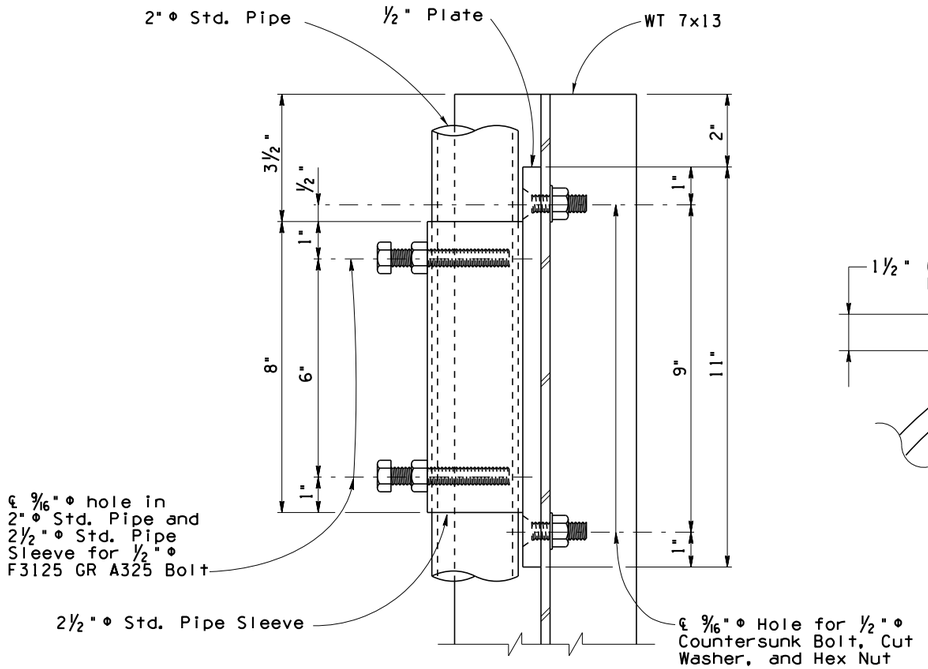




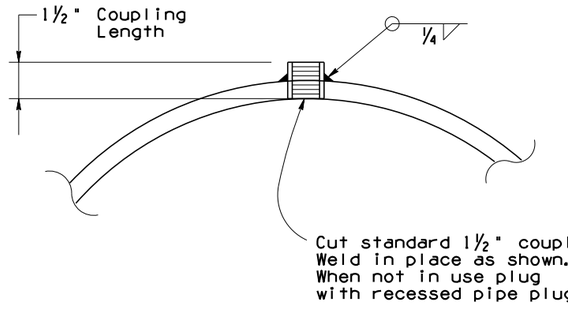
HAND HOLE & COVER DETAILS



SECTION G-G



ELEVATION H-H



COUPLING DETAIL

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PRIOR DISTRIBUTION DATE	04/00

STANDARDS ENGINEER A. ALZUBI RECOMMENDED FOR APPROVAL GROUP MANAGER D. EBERHART APPROVED STANDARDS COMMITTEE APPROVED FOR DISTRIBUTION 04/19 DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STANDARD DRAWING MEDIAN SIGN STRUCTURE (TWO SIDED) LIGHT SUPPORT DETAILS DRAWING NO. SD 9.01 (5 of 5)