F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	WILLIAMSON	917	756

STA.	TO STA.

FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT

* I-57, & OLD IL 13 (FAU 9629)
** (X1-6-2)VB-2,(X1-6)HBK-2

DETAIL A

$\frac{3}{4}$" ∅ stainless steel U-bolt. Provide two washers and two hexagon locknuts. (4) $\frac{13}{16}$" x 2" slots on ∅ 10" ∅ pipe. (4 slots required per pipe)

$\frac{1}{4}$" cap plate

$10\frac{3}{4}$"

A

B

$7\frac{1}{2}$"
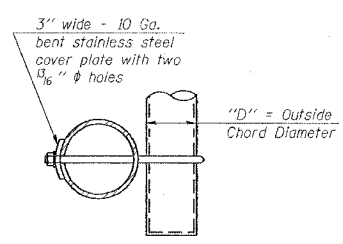
D + $\frac{1}{2}$" dia.

$\frac{1}{2}$" typ.

∅ slots
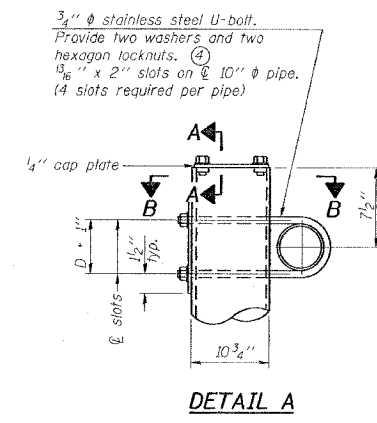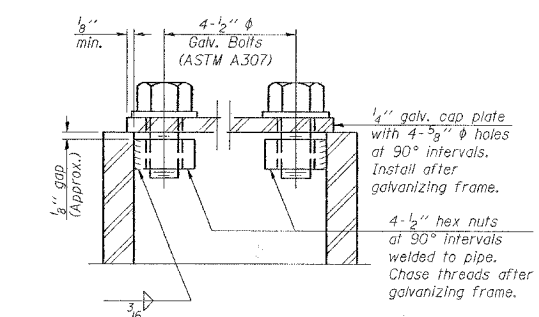
SECTION A-A
As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.

$\frac{1}{8}$" min.

4 - $\frac{1}{2}$" ∅ Galv. Bolts (ASTM A307)

$\frac{1}{4}$" galv. cap plate with 4-$\frac{5}{8}$" ∅ holes at 90° intervals. Install after galvanizing frame.

4-$\frac{1}{2}$" hex nuts welded to pipe at 90° intervals. Chase threads after galvanizing frame.

$\frac{1}{4}$" gap (approx.)

$\frac{3}{16}$

SECTION B-B

3" wide - 10 Ga. bent stainless steel cover plate with two $\frac{9}{16}$" ∅ holes

"D" = Outside Chord Diameter

SIDE ELEVATION

V
U
$5\frac{3}{8}$" T $5\frac{3}{8}$"
At ∅ pipe X
$7\frac{1}{2}$"
S
R
Detail A
W8x28 (3)
3" ∅ pipe (3) typ.
$\frac{1}{4}$ typ.
10" ∅ pipe (3) (For wall thickness see table.)
Detail A
A/3
A/3
A
A/3
H
Z
Y
$1'-1\frac{1}{2}$"
$1'-0$"
$1\frac{1}{2}$"
2" ±$\frac{1}{4}$"

∅ Upper Handhole (See Detail D)
12"
Detail C (See Base Sheet OS-A-6A.)

∅ Lower Handhole (See Detail D)

Detail B (See Base Sheet OS-A-6A.)
$1'-3$"
(2)
Conduit ∅ leg with handhole

For Foundation Details, see base sheet OS-F3 (Spread Footing) or OS4-F3 (Drilled Shaft).
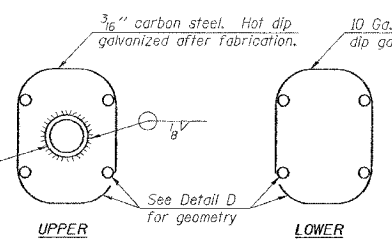
HANDHOLE COVERS

$\frac{3}{16}$" carbon steel. Hot dip galvanized after fabrication.

10 Ga. stainless steel or hot dip galvanized carbon steel.

$1\frac{1}{2}$" ∅ pipe coupling and plug, and $1\frac{1}{2}$" ∅ hole in cover

$\frac{1}{8}$"
See Detail D for geometry

UPPER   LOWER

DETAIL D

typ.
t-$\frac{1}{8}$
$\frac{5}{16}$
$\frac{1}{4}$
(1)
$\frac{5}{16}$
t
$4\frac{1}{2}$"
$3\frac{1}{2}$"
3"
$\frac{3}{8}$" $\frac{3}{8}$"

Drill & tap for $\frac{1}{4}$" - 20 screws. Chase thread after galvanizing.

$\frac{3}{4}$" x 2" flat bar frame (1)

$5\frac{1}{2}$"
5"
$6\frac{1}{2}$"
1" R
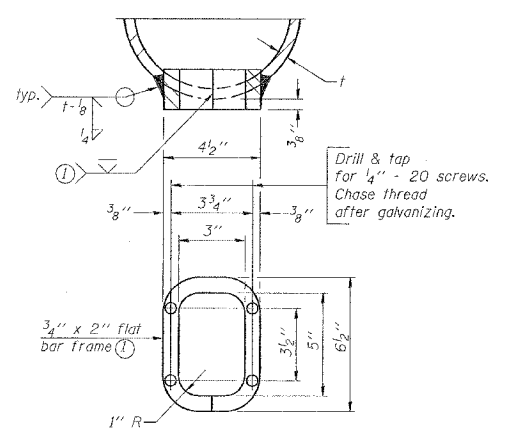
Provide $6\frac{1}{2}$" x $4\frac{1}{2}$" cover. Provide 4-$\frac{5}{16}$" ∅ holes in cover for $\frac{1}{4}$"-20 round head hot dip galvanized or stainless steel machine screws. (See cover details)

END ELEVATION

∅ of frame within 1" of plumb

Backfill shall be placed prior to erection of support frame

3" Galvanized Steel Conduit. Thread and cap both ends.
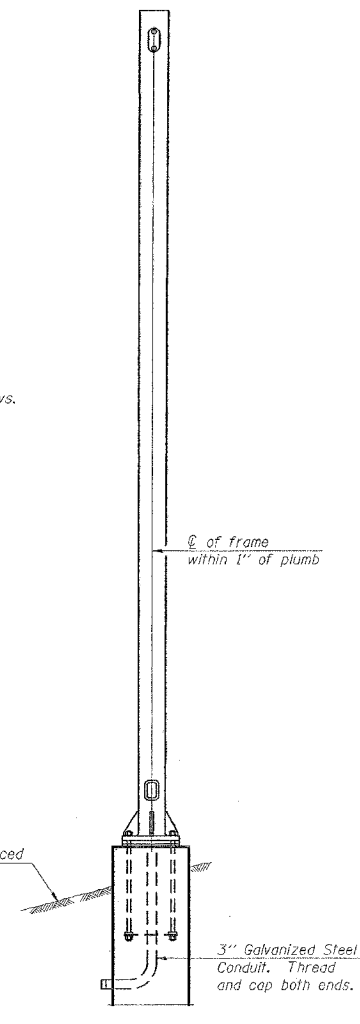
Support Design Loads: See Base Sheet OS-A-1 for design and loading criteria.
Load combinations checked include deadload plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

(1) In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μin or less.

(2) Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.

(3) Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1.

(4) See General Notes for fasteners.

(5) Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.

Structure Number	Station	Support		Truss Type	Pipe Wall Thickness	H	A
		Left	Right				
9S1001057L52.8	1532+00		X	I-A	.279	25.9	19.15
9S1001057L52.8	1532+00	X		I-A	.279	29.6	22.85

10" ∅ PIPE TRUSS SUPPORT FRAME

Truss Type	Dimensions								
	R	S	T	U	V	W	X	Y	Z
I-A	4'-6"	5'-5$\frac{1}{2}$"	4'-0"	5'-6"	6'-4$\frac{3}{4}$"	4"	9"	8'-3"	10'-9"
II-A (5)	5'-3"	6'-3$\frac{1}{4}$"	4'-6"	6'-1"	6'-11$\frac{3}{4}$"	4$\frac{3}{4}$"	9$\frac{1}{2}$"	8'-3"	10'-9"

REVISIONS	
NUMBER	REVISION	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME for ALUMINUM TRUSS

REVISIONS	
NAME	DATE

SCALE: VERT. NONE   DRAWN BY CNH
HORIZ.
DATE   CHECKED BY

OS-A-6   1-7-05