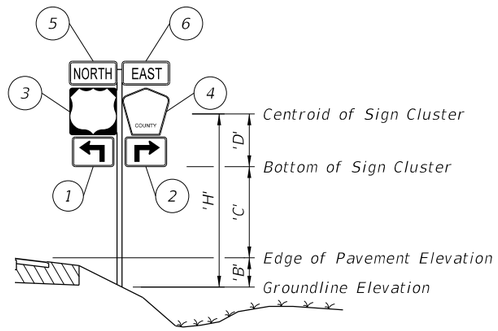
STEP 1: *Calculate the area and the centroid for an individual sign or a sign cluster. Note that the centroid and areas have been calculated for frequently used signs. These are shown on Sheets 6, 7, 8 and 9.*



	Size H x V	Centroid: Local $'Y_n'$	Centroid: Global $'X_n'$	Centroid: Global $'Y_n'$	$'A_n'$	$'X_n'$ x $'A_n'$	$'Y_n'$ x $'A_n'$
	(in. x in.)	(in.)	(in.)		(in.²)	(in.³)	(in.³)
1	21 x 15	7.5	–10.5–1.5–1.5 = –13.5	7.5	315	–4,252.5	2,362.5
2	21 x 15	7.5	10.5+1.5+1.5 = 13.5	7.5	315	+4,252.5	2,362.5
3	24 x 24	12	–12–1.5 = –13.5	15+1+12 = 28	576	–7,776	16,128
4	24 x 24	12	12+1.5 = 13.5	15+1+12 = 28	436	5,886	12,208
5	24 x 12	6	–12–1.5 = –13.5	15+1+24+1+6 = 47	288	–3,888	13,536
6	24 x 12	6	12+1.5 = 13.5	15+1+24+1+6 = 47	288	3,888	13,536
				TOTALS	2,218	–1,890	60,133

$\Sigma\ ('A_n')$ = 2,218 in.² = 15.4 ft.² $\quad \Sigma\ ('X_n' \times 'A_n')$ = –1,890 in.³ = –1.09 ft.³ $\quad \Sigma\ ('Y_n' \times 'A_n')$ = 60,133 in.³ = 34.8 ft.³

$$'X_c' = \frac{\Sigma\ ('X_n' \times 'A_n')}{\Sigma\ 'A_n'} = -0.1 \text{ ft.} \qquad 'Y_c' = \frac{\Sigma\ ('Y_n' \times 'A_n')}{\Sigma\ 'A_n'} = 2.26 \text{ ft.}$$

STEP 2: *Determine the height 'H' from groundline to the centroid of the individual sign or sign cluster.*

Assume: 'B' = 1 ft., 'C' = 7 ft.

Calculated: X_c' = –0.1 ft., $'Y_c'$ = 'D' 2.26 ft.

Since X_c' = –0.1 < 6", it is not a cantilever sign, only dark-bold lines in the table will be referenced to.

'H' = 'B' + 'C' + 'D' = 10.26 ft. ==> USE 11 ft. $\quad \Sigma\ ('A_n')$ = 15.4 ft.² ==> USE 16 ft.²

STEP 3: *Refer to the Aluminum Column (Post) Selection Tables and find the intersection point. See Sheet 3.*

ALUMINUM COLUMN (POST) SELECTION TABLE

TOTAL PANEL AREA (SF) \ 'H' (FT)	8 ft	9 ft	10 ft	11 ft	12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
3 sf	2	2.5	2.5	2.5	3	3	3	3	3.5	3.5	3.5	3.5	3.5
4 sf	2.5	2.5	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5
5 sf	2.5	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4
6 sf	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4
7 sf	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4
8 sf	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4
9 sf	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4
10 sf	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4.5	4.5
11 sf	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4.5	4.5	4.5
12 sf	3.5	3.5	3.5	4	4	4	4	4	4	4	4.5	4.5	4.5
13 sf	3.5	3.5	4	4	4	4	4	4	4	4.5	4.5	4.5	5
14 sf	3.5	3.5	4	4	4	4	4	4	4.5	4.5	4.5	5	5
15 sf	3.5	4	4	4	4	4	4	4.5	4.5	4.5	5	5	5
16 sf	3.5	4	4	4	4	4	4	4.5	4.5	5	5	5	6
17 sf	4	4	4	4	4	4	4.5	4.5	4.5	5	5	6	6
18 sf	4	4	4	4	4	4.5	4.5	4.5	5	5	5	6	6
19 sf	4	4	4	4	4	4.5	4.5	4.5	5	5	6	6	6
20 sf	4	4	4	4	4.5	4.5	4.5	5	5	5	6	6	6
21 sf	4	4	4	4	4.5	4.5	5	5	5	6	6	6	6
22 sf	4	4	4	4.5	4.5	4.5	5	5	6	6	6	6	6
23 sf	4	4	4	4.5	4.5	5	5	5	6	6	6	6	6
24 sf	4	4	4.5	4.5	4.5	5	5	6	6	6	6	6	6
25 sf	4	4	4.5	4.5	5	5	5	6	6	6	6	6	8
26 sf	4	4.5	4.5	4.5	5	5	5	6	6	6	6	8	8
27 sf	4	4.5	4.5	4.5	5	5	6	6	6	6	6	8	8
28 sf	4	4.5	4.5	5	5	5	6	6	6	6	6	8	8
29 sf	4.5	4.5	4.5	5	5	6	6	6	6	6	8	8	8
30 sf	4.5	4.5	5	5	5	6	6	6	6	6	8	8	8

For 'H' = 11 ft., Area = 16 ft.²

- *Refer to the Aluminum Column (Post) Selection Table, as copied from Sheet 3 and shown here.*
- *To determine the required post size, find the intersection of the row labeled "16 SF" and the column labeled "11 FT". For the example the intersection value is "4" (4" OD).*
- *In the Column (Post) and Foundation Table, the value "4" concludes that the design requires a 4.0" diameter and ¼" thick Aluminum Column (Post) and a 2.0' diameter and 3.5' deep Concrete Foundation and 3.0' Stub.*

STEP 4: *For sign assemblies with signs oriented in two directions, only the sign with the largest area should be analyzed to determine the Column (Post) requirements.*

GUIDE TO USE THIS STANDARD

SHEET NO.	CONTENTS
1	General Notes and Example
2	Centroid and Height
3	Column and Foundation Tables
4	Slip Base and Foundation Details
5	Driven Post and Soil Plate Details
6	Connection and Wind Beam
7, 8 & 9	Frequently Used Sign Clusters

GENERAL NOTES:

1. *Shop Drawings:*
   This Index is considered fully detailed. Submit Shop Drawings for minor modifications not detailed in the Plans.

2. *Aluminum Sign, Wind Beams and Column (Post) Materials:*
   a. *Aluminum Plates: ASTM B209, Alloy 6061-T6*
   b. *Aluminum Bars and Extruded Shapes: ASTM B221, Alloy 6061-T6*
   c. *Aluminum Structural Shapes: ASTM B308 Alloy 6061-T6*
   d. *Cast Aluminum: ASTM B26 Alloy A356-T6*
   e. *Aluminum Weld Material: ER 5556 or 5356*

3. *Sign Mounting Bolts (Screws), Nuts and Washers:*
   a. *Aluminum Button Head and Flat Head Bolts (Screws): ASTM F468 Alloy 2024-T4*
   b. *Aluminum Hex Nuts: ASTM F467 Alloy 6061-T6 or 6262-T9*
   c. *Aluminum Washers: ASTM B221, Alloy 7075-T6*

7. *Stainless Steel Bolts, Nuts and Washers may be used in lieu of the Aluminum button head bolts and flat head Screws as follows:*
   a. *Stainless Steel Bolts (Screws): ASTM F 593 Alloy Group 2, Condition A, CW1 or SH1*
   b. *Stainless Steel Nuts: ASTM F594*

8. *Sign Column (Post) Bolts, Nuts and Washers:*
   a. *Galvanized U-Bolt (Column): ASTM A449 or ASTM A193 B7 according to ASTM F2329 with nuts and washers*
   b. *Aluminum Bolts (Sleeve): ASTM F468, Alloy 6061-T6 or 2024-T4 with Hex Nuts F467 6061-T6 or 6262-T9 and Washers B221, Alclad 2024-T4*
   c. *Galvanized High Strength Hex Head Bolts (Base Bolts): ASTM F3125, Grade A325, Type 1*
   d. *Galvanized Hex Nuts: ASTM A563 Grade DH*
   e. *Galvanized Washers: ASTM F436*
   f. *Galvanized Bolts (Sleeve): ASTM A307 with Galvanized Hex Nuts and Washers*

9. *Coatings:*
   a. *Aluminum Fasteners: Anodic coating (0.0002 inches min.) and chromate sealed*
   b. *High Strength Steel Bolts Nuts and Washers: ASTM F2329*
   c. *All other steel items (excluding stainless steel): Hot-dip Galvanize – ASTM A123*
   d. *Repair damaged galvanizing in accordance with Specification Section 562*

10. *BREAKAWAY SUPPORTS REQUIREMENTS: Install non-frangible aluminum column (post) (larger than 3½") with breakaway supports as shown on Sheet 5. Signs shielded by barrier wall or guardrail do not require breakaway support.*

NOTES AND EXAMPLE

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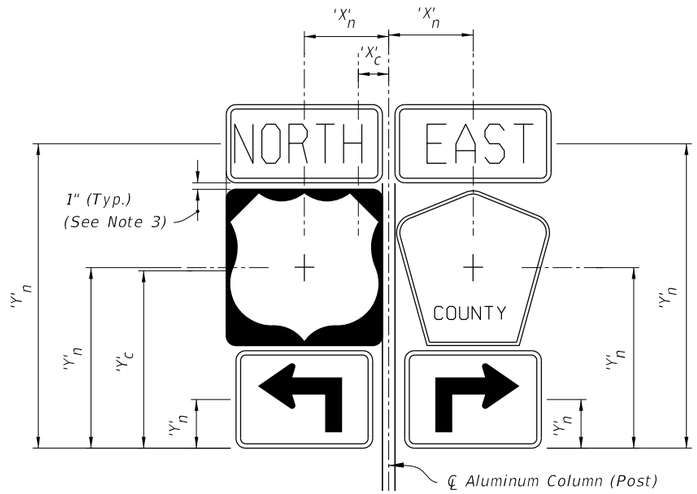


SIGN CLUSTER

$$'X'_c = \frac{\Sigma\ (\ 'X'_n \times 'A'_n\ )}{\Sigma\ 'A'_n} \qquad 'C' = 'Y'_c = \frac{\Sigma\ (\ 'Y'_n \times 'A'_n\ )}{\Sigma\ 'A'_n}$$

'A'n = Area of individual sign

'B' = Height of the edge of pavement from the mounting elevation

'C' = Height of the the bottom of the sign or cluster from the edge of pavement elevation

'D' = Height of the centroid of the sign or cluster from the bottom of the sign or cluster

h = Individual sign height

'H' = Height of sign or cluster centroid from groundline

a = Individual sign width

'X'c = Centroid horizontal location of sign or cluster from ℄ Aluminum Column (Post)

'Y'c = Centroid height of sign or cluster from bottom of sign cluster

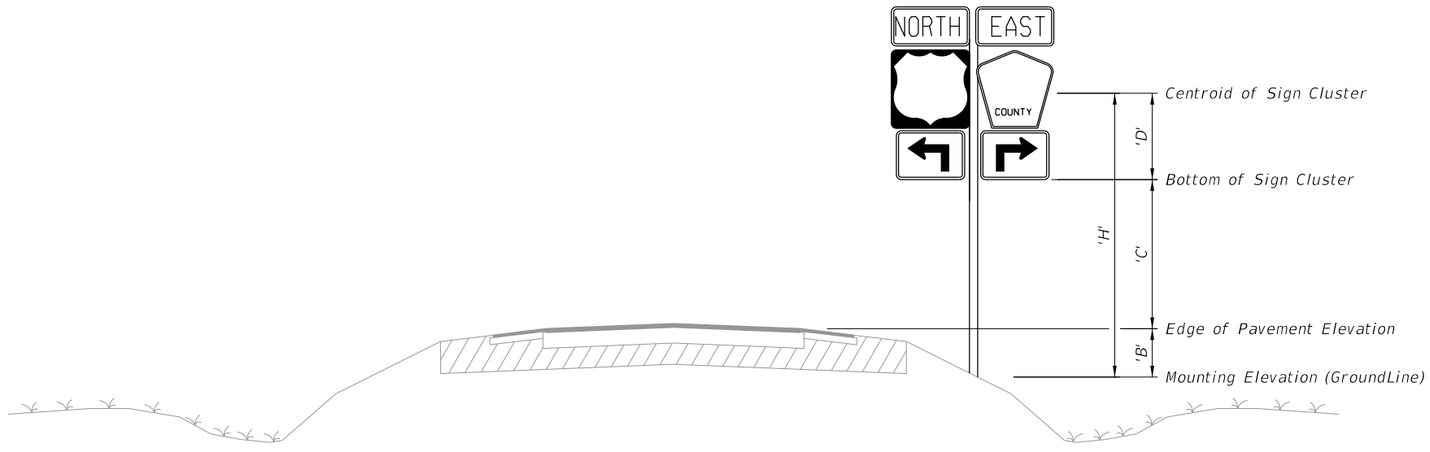
'X'n = Individual sign centroid horizontal location from ℄ Aluminum Column (Post)

'Y'n = Individual Sign centroid height from bottom of sign cluster

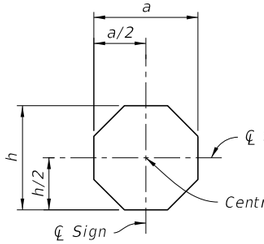
NOTES:

1. For 'B' & 'C' see Index No. 17302 and Roadway Plans.
2. Do not exceed an area of 30 SF or a width of 60 inches for a sign or a sign cluster, including rotated sign panels.
3. Vertical sign spacing (1" shown on Sign Cluster detail) also applies to rotated signs.

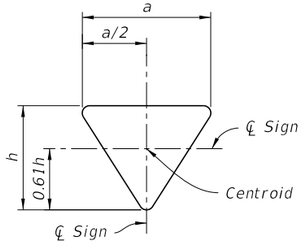
CALCULATION OF SIGN CLUSTER CENTROID



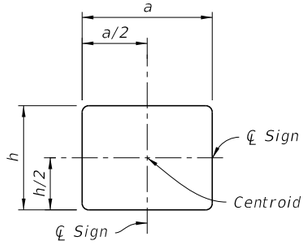
TYPICAL SECTION



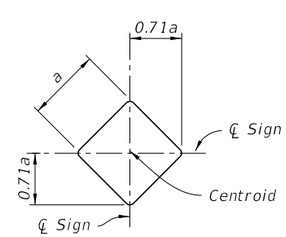
STOP



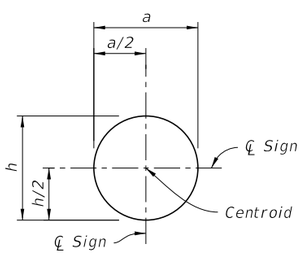
YIELD



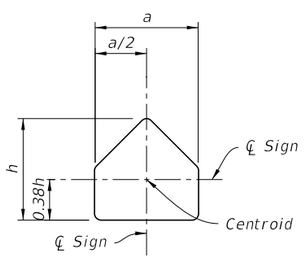
RECTANGLE



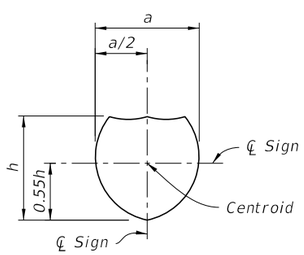
DIAMOND



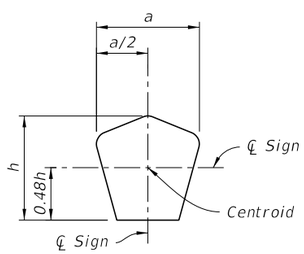
RAILROAD



SCHOOL



SHIELD



COUNTY

CENTROID AND HEIGHT

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LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	SINGLE COLUMN GROUND SIGNS	INDEX NO.	SHEET NO.
11/01/16					11860	2 of 9

ALUMINUM COLUMN (POST) SELECTION TABLE (O.D. in.)

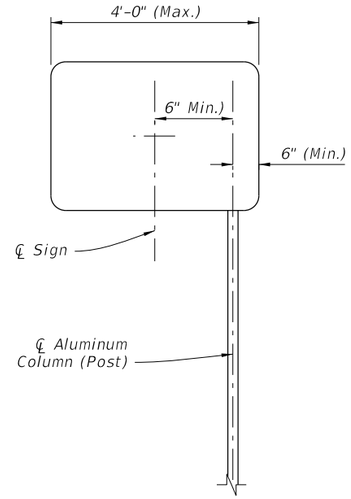
TOTAL PANEL AREA (SF)	'H' (FT) 8 ft	9 ft	10 ft	11 ft	12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
3 sf	2	2.5	2.5	2.5	3	3	3	3	3.5	3.5	3.5	3.5	3.5
4 sf	2.5	2.5	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5
5 sf	2.5	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4
6 sf	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4
7 sf	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4
8 sf	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4
9 sf	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4
10 sf	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4.5	4.5
11 sf	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4.5	4.5	4.5
12 sf	3.5	3.5	3.5	4	4	4	4	4	4	4	4.5	4.5	4.5
13 sf	3.5	3.5	4	4	4	4	4	4	4	4.5	4.5	4.5	5
14 sf	3.5	3.5	4	4	4	4	4	4	4.5	4.5	4.5	5	5
15 sf	3.5	4	4	4	4	4	4	4.5	4.5	4.5	5	5	5
16 sf	3.5	4	4	4	4	4	4	4.5	4.5	5	5	5	6
17 sf	4	4	4	4	4	4	4.5	4.5	4.5	5	5	6	6
18 sf	4	4	4	4	4	4.5	4.5	4.5	5	5	5	6	6
19 sf	4	4	4	4	4	4.5	4.5	4.5	5	5	6	6	6
20 sf	4	4	4	4	4.5	4.5	4.5	5	5	5	6	6	6
21 sf	4	4	4	4	4.5	4.5	5	5	5	6	6	6	6
22 sf	4	4	4	4.5	4.5	4.5	5	5	6	6	6	6	6
23 sf	4	4	4	4.5	4.5	5	5	5	6	6	6	6	6
24 sf	4	4	4.5	4.5	4.5	5	5	6	6	6	6	6	6
25 sf	4	4	4.5	4.5	5	5	5	6	6	6	6	6	8
26 sf	4	4.5	4.5	4.5	5	5	5	6	6	6	6	8	8
27 sf	4	4.5	4.5	4.5	5	5	6	6	6	6	6	8	8
28 sf	4	4.5	4.5	5	5	5	6	6	6	6	6	8	8
29 sf	4.5	4.5	4.5	5	5	6	6	6	6	6	8	8	8
30 sf	4.5	4.5	5	5	5	6	6	6	6	6	8	8	8

COLUMN (POST) AND FOUNDATION TABLE

Column (Post) Size		Foundation Alternatives				
		Driven Post *		Concrete (Class I)		
Outside Diameter (in)	Wall Thk. (in)	Embedment Depth (ft) without Soil Plate	Embedment Depth (ft) with Soil Plate	Diameter (ft)	Embedment Depth (ft)	Stub Length (ft)
2.0	1/8	4.5	2.5	2.0	2.0	2.0
2.5	1/8	5.0	3.0	2.0	2.5	2.0
3.0	1/8	5.0	3.5	2.0	2.5	2.5
3.5	3/16	6.0	4.5	2.0	3.0	3.0
4.0	1/4	---	---	2.0	3.5	3.0
4.5	1/4	---	---	2.0	4.0	3.0
5.0	1/4	---	---	2.0	4.5	3.0
6.0	1/4	---	---	2.0	5.0	3.0
8.0	5/16	---	---	2.0	5.5	3.0

* *INSTALLING FRANGIBLE COLUMN SUPPORTS:*

Columns (posts) 3½" O.D. and less are frangible. Frangible columns may be installed by driving the post or the posts may be set in preformed holes. Backfill preformed holes with suitable material tamped in layers not thicker than 6" (to provide adequate compaction) or filled with flowable fill or bagged concrete.



CANTILEVER SIGN

NOTE:

1. For cantilever sign installations see Index 17302.
2. For cantilever signs with widths greater than 4' see Index 11861.
3. Use of driven post for cantilever sign in not permitted.

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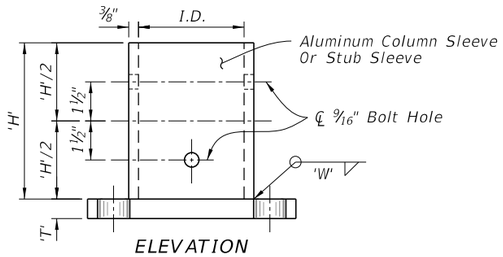
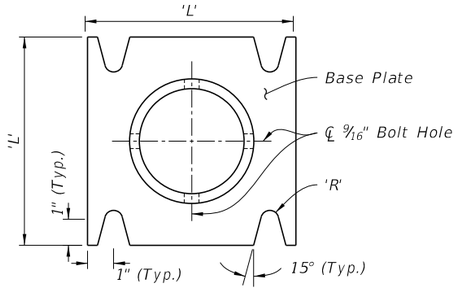
COLUMN AND FOUNDATION TABLES



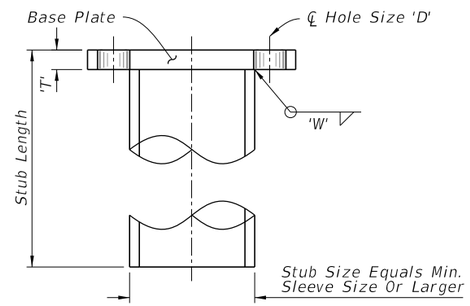
ELEVATION



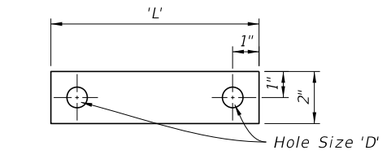
PLAN

(Welded Or Sandcast)

STUB/SLEEVE & BASE PLATE DETAILS

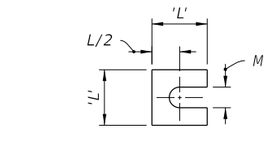


(Welded)



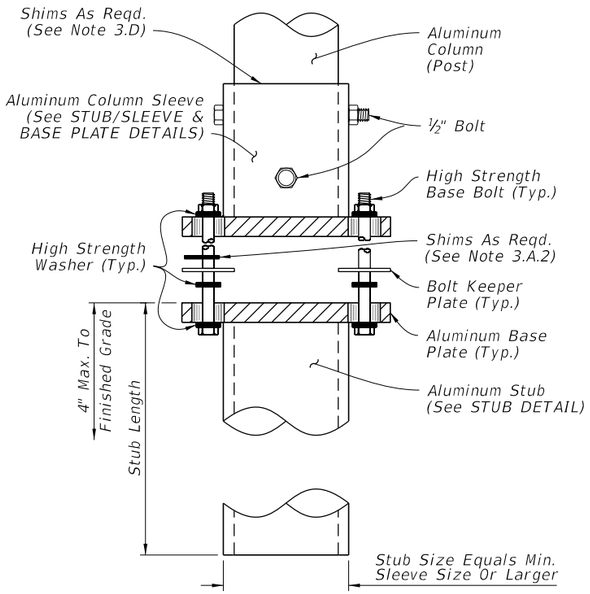
28 Ga. Thick Aluminum Strip
2 Reqd. Per Base

BOLT KEEPER PLATE DETAIL

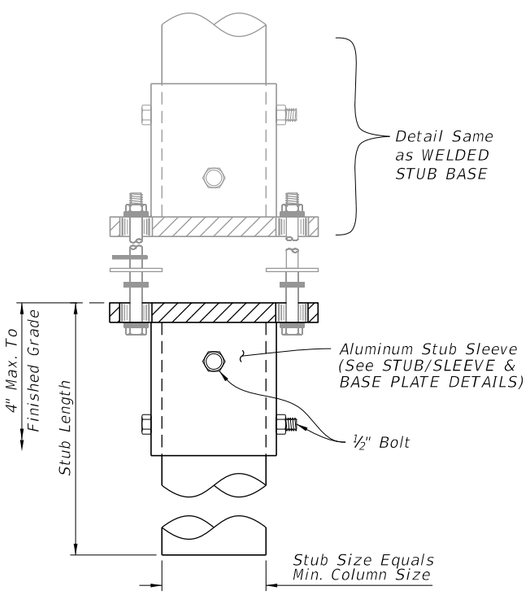


Provide 2~0.0149" Thick (28 guage)
and 2~0.0329" Thick (21 guage)
Brass Shims Per Post

SHIM DETAIL

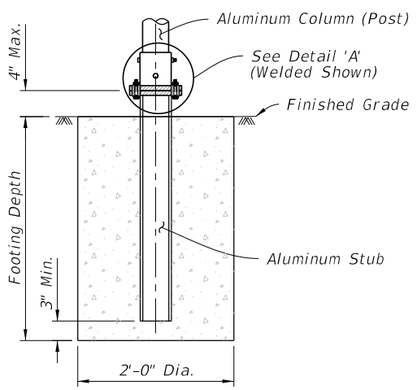


WELDED STUB BASE

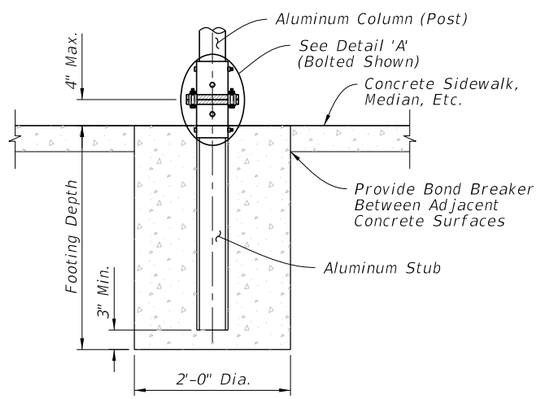


BOLTED STUB/SLEEVE BASE

STUB DETAIL



DETAIL 'A'



NOTES:

1. Foundation Notes for Frangible Slip Base:

   A. Place Stub into concrete to diameter and depth shown in POST AND FOUNDATION TABLE using Class I Concrete.

2. Slip Base Fabrication Notes:

   A. The difference between the O.D. of the post and I.D. of the Sleeve must be 1/16" or less.

   B. Either a Welded Stub Base or Bolted Stub/Sleeve Base may be used to fabricate the Slip Base.

   C. For cast base plates bolted to foundation stubs, use a foundation stub the same size as the sign column (Post).

3. Slip-Base Assembly Instructions:

   A. Assemble Slip Base connections in the following manner:
      1. Insert Post into Sleeve and connect using 2 ~ ½" diameter Sleeve Bolts.
      2. Assemble top base plate to bottom Base Plate using Base Bolts (High strength) with 3 washers per bolt. (See Detail 'A'):
         a. Place one washer on each Base Bolt between the bottom Base Plate and the Base Bolt head.
         b. Place the next washer between the Bottom Base Plate and the Bolt Keeper Plate.
         c. Use brass shims to plumb the post.
         d. Add the top base plate section.
         e. Place the third washer between the Top Base Plate and the Nut.

   B. Orient the Bolt Keeper Plates in the Direction of Traffic.

   C. Tighten Base Bolts as follows:
      1. Tighten Base Bolts to the maximum possible with a 12" to 15" wrench (this will bed the washers and shims and clear the bolt threads).
      2. Loosen each Base Bolt one turn.
      3. Under the supervision of the Engineer, use a calibrated wrench to tighten bolts to the torque prescribed in the SLIP BASE DETAILS Table. Over tightened Base Bolts are not permitted.
      4. Distort bolt threads at the junction with nuts to prevent loosening. Repair damaged galvanizing.

   D. Obtain a tight sleeve connection by placing 4 galvanized steel shims between the column (post) and sleeve. Space the shims evenly around the perimeter of the column (1 between each bolt hole, 4 total). Use shims that are 1" shorter than the height of the sleeve.

Column (Post) Size	SLIP BASE DETAILS													
Outside Dia.	Wall Thickness	Sleeve I.D. (Max.)	Sleeve Height 'H'	Weld 'W'	Base Plate 'L'	Base Plate 'T'	Radius 'R'	Base Bolt Size	Base Bolt Length	Base Plate Torque ft-lbs	Base Plate Torque in.-lbs	Hole Size 'D'	SHIM L	SHIM M
4"	¼"	4 1/16"	6"	5/8"	8"	3/4"	1 11/32"	5/8"	3"	29	345	1 1/16"	1 3/8"	1 1/16"
4½"	¼"	4 9/16"	6"	5/8"	8"	7/8"	1 11/32"	5/8"	3 1/4"	29	345	1 1/16"	1 3/8"	1 1/16"
5"	¼"	5 1/16"	7"	5/8"	8"	7/8"	1 11/32"	5/8"	3 1/4"	29	345	1 1/16"	1 3/8"	1 1/16"
6"	¼"	6 1/16"	8"	3/4"	9"	1"	1 13/32"	3/4"	3 1/2"	46	554	1 3/16"	1 3/4"	1 3/16"
8"	5/16"	8 1/16"	10"	3/4"	11"	1"	1 15/32"	7/8"	3 3/4"	53	640	1 5/16"	2 3/8"	1 1/16"

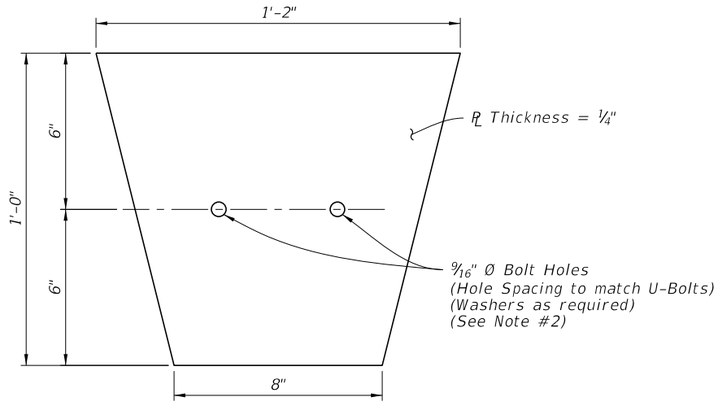
SLIP BASE AND FOUNDATION DETAIL
(Non-Frangible Column, Typ.)

SLIP BASE AND FOUNDATION DETAIL IN CONCRETE
(Non-Frangible Column In Crossovers, Medians & Sidewalks)

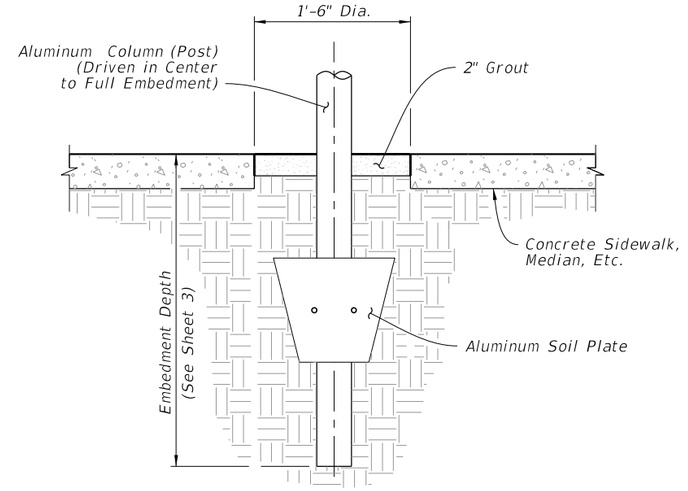
SLIP BASE AND FOUNDATION DETAILS

NOTES:

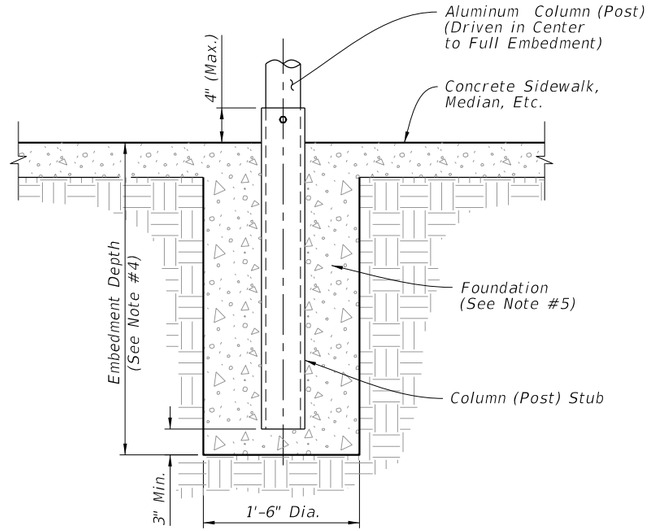
1. Align Soil Plate bottom at ⅔ of embedment depth.
2. Slot up to 1" long is allowed to accommodate various Column (Post) sizes.
3. Rectangular soil plate of size 1'–2" x 1'–0" may be used as an alternative.
4. Embedment Depth is 2'–6" for 2.0" and 2.5" Column (Post) Stubs and 3'–6" for 3.0" and 3.5" Column (Post) Stubs.
5. Concrete foundation may be Class Non Structural if poured monolithically with sidewalk or separator.



ALUMINUM SOIL PLATE DETAIL



DRIVEN POST DETAIL
(Frangible Post In Crossovers, Medians & Sidewalks)

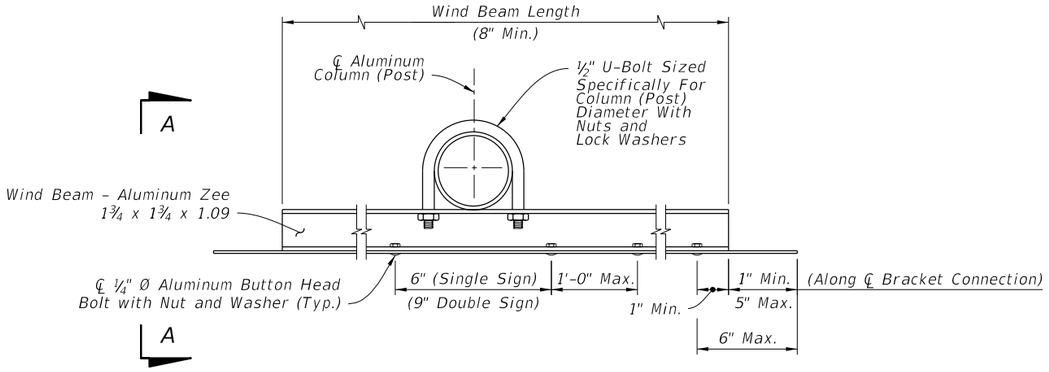


CONCRETE/STUB DETAIL
(Frangible Post In Crossovers, Medians & Sidewalks)

10/14/2016 7:57:56 AM

DRIVEN POST AND SOIL PLATE DETAIL

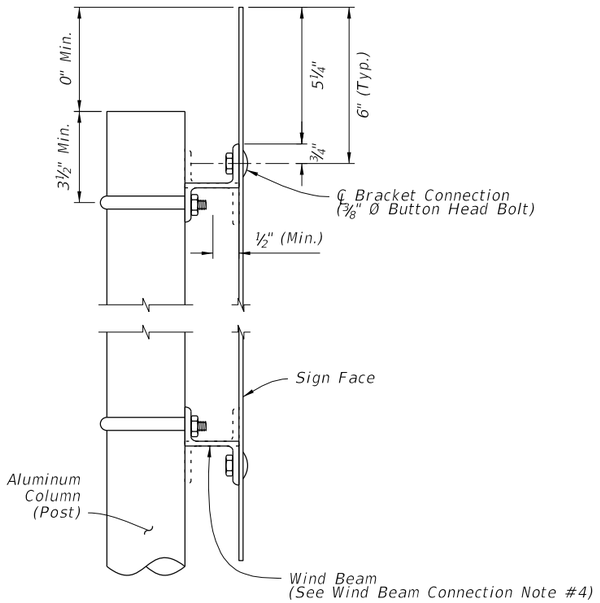
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FY 2017-18 DESIGN STANDARDS	SINGLE COLUMN GROUND SIGNS	11860	5 of 9



WIND BEAM CONNECTION NOTES:

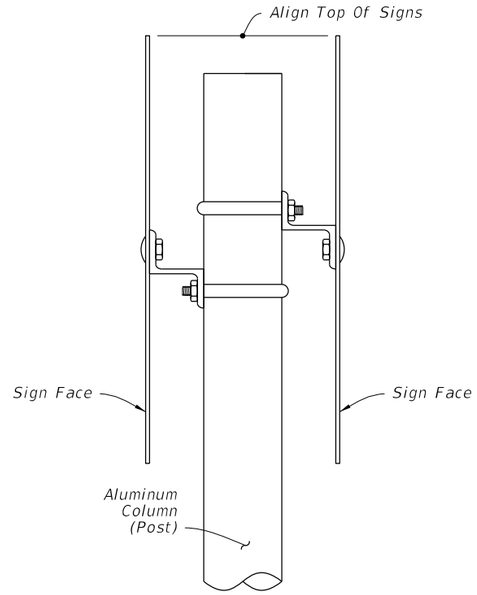
1. 5⁄16" Ø Stainless Steel Hex Head Bolts with Flat Washer under Head and Lockwasher under Nut may be used in lieu of ¼" Ø Aluminum Button Head Bolts.
2. Use Nylon washers (provided by the sheeting supplier) under the button bolt heads to protect sign sheeting.
3. Slots up to 2" long are allowed in wind beams to accommodate U-Bolts for varying Column (Post) diameters.
4. Wind beams may be oriented in either direction.

BRACKET DETAIL



WIND BEAM CONNECTIONS DETAILS

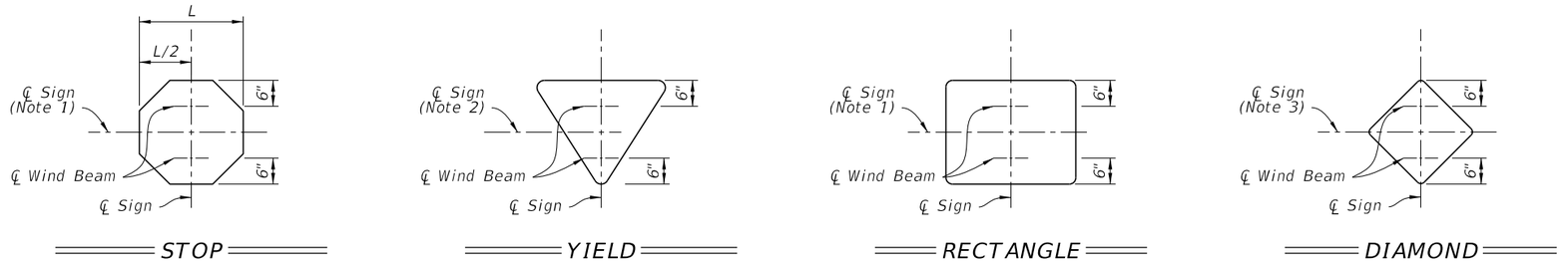
SECTION A-A



BACK-TO-BACK SIGN NOTE:

Use the area and the centroid location of the largest sign to determine aluminum column (post) size.

BACK-TO-BACK SIGN DETAIL



WIND BEAM PLACEMENT NOTES:

1. Install an additional third wind beam along the ℄ for signs with heights greater than 30" and less than 72". For rectangular signs greater than 72" maintain a maximum wind beam spacing of 2'-6", with the additional wind beams spaced evenly between the top and bottom wind beams. For rectangular signs up to 12" in height, use only one wind beam at ℄ Sign.
2. Install an additional third wind beam along the ℄ for Yield and School signs greater than 36".
3. Install an additional third wind beam along the ℄ for Diamond signs 30" or greater.

WIND BEAM PLACEMENT DETAILS

CONNECTION AND WIND BEAMS

8/14/2017 11:09:54 AM

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	SINGLE COLUMN GROUND SIGNS	INDEX	SHEET
11/01/17					11860	6 of 9

Size	Area	Total Area	Centroid
36x12	3.00 SF	6.31 SF	1.75 Ft.
24x24	3.31 SF		

Size	Area	Total Area	Centroid
36x12	3.00 SF	8.18 SF	1.92 Ft.
30x30	5.18 SF		

Size	Area	Total Area	Centroid
36x12	3.00 SF	10.46 SF	2.10 Ft.
36x36	7.46 SF		

Size	Area	Total Area	Centroid
36x12	3.00 SF	16.25 SF	2.48 Ft.
48x48	13.25 SF		

Size	Area	Total Area	Centroid
24x24	3.31 SF	6.31 SF	1.71 Ft.
24x18	3.00 SF		

Size	Area	Total Area	Centroid
30x30	5.18 SF	10.18 SF	2.19 Ft.
30x24	5.00 SF		

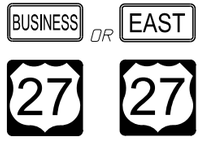
Size	Area	Total Area	Centroid
36x36	7.46 SF	12.46 SF	2.55 Ft.
30x24	5.00 SF		

Size	Area	Total Area	Centroid
36x12	3.00 SF	13.18 SF	2.87 Ft.
30x30	5.18 SF		
30x24	5.00 SF		

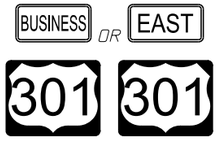
Size	Area	Total Area	Centroid
36x12	3.00 SF	15.46 SF	3.15 Ft.
36x36	7.46 SF		
30x24	5.00 SF		

Size	Area	Total Area	Centroid
21x15	2.19 SF	6.19 SF	1.60 Ft.
24x24	4.00 SF		

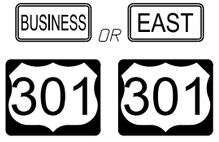
Size	Area	Total Area	Centroid
21x15	2.19 SF	7.19 SF	1.52 Ft.
30x24	5.00 SF		



Size	Area	Total Area	Centroid
24x12	2.00 SF	6.00 SF	1.53 Ft.
24x24	4.00 SF		



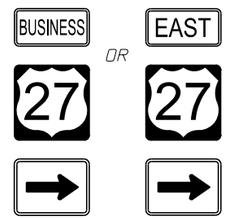
Size	Area	Total Area	Centroid
24x12	2.00 SF	7.00 SF	1.45 Ft.
30x24	5.00 SF		



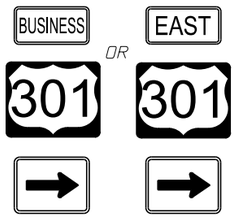
Size	Area	Total Area	Centroid
30x15	3.13 SF	8.13 SF	1.66 Ft.
30x24	5.00 SF		

Size	Area	Total Area	Centroid
24x24	4.00 SF	6.19 SF	1.73 Ft.
21x15	2.19 SF		

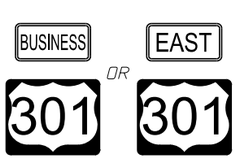
Size	Area	Total Area	Centroid
30x24	5.00 SF	7.19 SF	1.81 Ft.
21x15	2.19 SF		



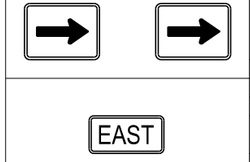
Size	Area	Total Area	Centroid
24x12	2.00 SF	8.19 SF	2.26 Ft.
24x24	4.00 SF		
21x15	2.19 SF		



Size	Area	Total Area	Centroid
24x12	2.00 SF	9.19 SF	2.27 Ft.
30x24	5.00 SF		
21x15	2.19 SF		



Size	Area	Total Area	Centroid
30x15	3.13 SF	10.32 SF	2.49 Ft.
30x24	5.00 SF		
21x15	2.19 SF		



Size	Area	Total Area	Centroid
24x12	2.00 SF	10.19 SF	2.80 Ft.
24x12	2.00 SF		
24x24	4.00 SF		
21x15	2.19 SF		

10/14/2016 7:58:00 AM

LAST REVISION	REVISION	DESCRIPTION:			
07/01/15			FDOT FY 2017-18 DESIGN STANDARDS	SINGLE COLUMN GROUND SIGNS	INDEX NO. 11860 / SHEET NO. 7 of 9

	Size	Area	Total Area	Centroid
EAST	24x12	2.00 SF	11.19 SF	2.76 Ft.
BUSINESS	24x12	2.00 SF		
301	30x24	5.00 SF		
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
EAST	30x15	3.13 SF	13.45 SF	3.16 Ft.
BUSINESS	30x15	3.13 SF		
301	30x24	5.00 SF		
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
JCT	21x15	2.19 SF	3.90 SF	1.57 Ft.
LEON 56 COUNTY	18x18	1.71 SF		

	Size	Area	Total Area	Centroid
JCT	21x15	2.19 SF	5.22 SF	1.72 Ft.
LEON 56 COUNTY	24x24	3.03 SF		

	Size	Area	Total Area	Centroid
JCT	21x15	2.19 SF	6.95 SF	1.87 Ft.
LEON 56 COUNTY	30x30	4.76 SF		

	Size	Area	Total Area	Centroid
LEON 56 COUNTY	18x18	1.71 SF	3.90 SF	1.26 Ft.
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
LEON 56 COUNTY	24x24	3.03 SF	5.22 SF	1.62 Ft.
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
LEON 56 COUNTY	30x30	4.76 SF	6.95 SF	1.97 Ft.
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
TO	24x12	2.00 SF	9.39 SF	2.87 Ft.
EAST	24x12	2.00 SF		
INTERSTATE 75	24x24	3.20 SF		
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
TO	24x12	2.00 SF	10.18 SF	2.84 Ft.
EAST	24x12	2.00 SF		
INTERSTATE 295	30x24	3.99 SF		
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
TO	30x15	3.13 SF	12.44 SF	3.26 Ft.
EAST	30x15	3.13 SF		
INTERSTATE 295	30x24	3.99 SF		
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
JCT	21x15	2.19 SF	5.39 SF	1.75 Ft.
INTERSTATE 75	24x24	3.20 SF		

	Size	Area	Total Area	Centroid
JCT	21x15	2.19 SF	6.18 SF	1.67 Ft.
INTERSTATE 295	30x24	3.99 SF		

	Size	Area	Total Area	Centroid
EAST TO OR INTERSTATE 75 INTERSTATE 75	24x12	2.00 SF	5.20 SF	1.67 Ft.
	24x24	3.20 SF		

	Size	Area	Total Area	Centroid
EAST TO OR INTERSTATE 295 INTERSTATE 295	24x12	2.00 SF	5.99 SF	1.60 Ft.
	30x24	3.99 SF		

	Size	Area	Total Area	Centroid
EAST TO OR INTERSTATE 295 INTERSTATE 295	30x15	3.13 SF	7.12 SF	1.81 Ft.
	30x24	3.99 SF		

	Size	Area	Total Area	Centroid
EAST TO OR INTERSTATE 75 INTERSTATE 75	30x15	3.13 SF	10.33 SF	2.27 Ft.
	36x36	7.20 SF		

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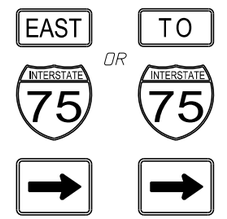
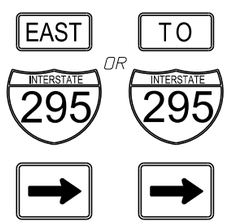
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/15			FDOT FY 2017-18 DESIGN STANDARDS	SINGLE COLUMN GROUND SIGNS	11860	8 of 9

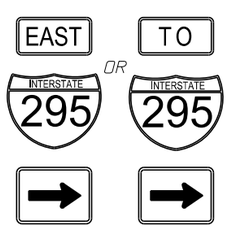
Size	Area	Total Area	Centroid
30x15	3.13 SF	12.12 SF	2.18 Ft.
45x36	8.99 SF		



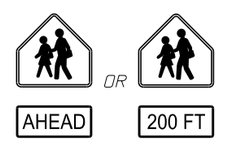
Size	Area	Total Area	Centroid
24x12	2.00 SF	7.39 SF	2.30 Ft.
24x24	3.20 SF		
21x15	2.19 SF		



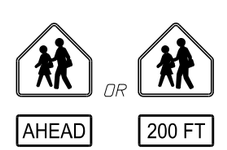
Size	Area	Total Area	Centroid
24x12	2.00 SF	8.18 SF	2.31 Ft.
30x24	3.99 SF		
21x15	2.19 SF		



Size	Area	Total Area	Centroid
30x15	3.13 SF	9.31 SF	2.55 Ft.
30x24	3.99 SF		
21x15	2.19 SF		



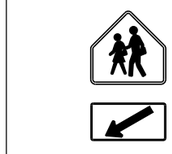
Size	Area	Total Area	Centroid
30x30	4.69 SF	6.69 SF	1.61 Ft.
24x12	2.00 SF		



Size	Area	Total Area	Centroid
30x30	4.69 SF	8.44 SF	1.77 Ft.
30x18	3.75 SF		

Size	Area	Total Area	Centroid
36x36	6.75 SF	10.50 SF	2.06 Ft.
30x18	3.75 SF		

Size	Area	Total Area	Centroid
30X30	4.69 SF	6.69 SF	1.61 Ft.
24X12	2.00 SF		



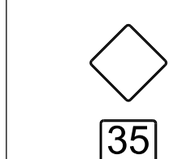
Size	Area	Total Area	Centroid
30X30	4.69 SF	8.44 SF	1.77 Ft.
30X18	3.75 SF		

Size	Area	Total Area	Centroid
36X36	6.75 SF	10.50 SF	2.06 Ft.
30X18	3.75 SF		

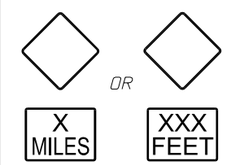
Size	Area	Total Area	Centroid
30X30	6.25 SF	8.25 SF	2.28 Ft.
24X12	2.00 SF		

Size	Area	Total Area	Centroid
36X36	9.00 SF	12.75 SF	2.84 Ft.
30X18	3.75 SF		

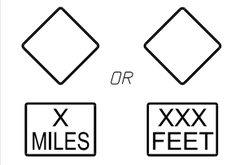
Size	Area	Total Area	Centroid
30X30	6.25 SF	10.25 SF	2.74 Ft.
24X24	4.00 SF		



Size	Area	Total Area	Centroid
36X36	9.00 SF	15.25 SF	3.29 Ft.
30X30	6.25 SF		



Size	Area	Total Area	Centroid
30X30	6.25 SF	9.25 SF	2.51 Ft.
24X18	3.00 SF		



Size	Area	Total Area	Centroid
36X36	9.00 SF	14.00 SF	3.06 Ft.
30X24	5.00 SF		

10/14/2016 7:58:04 AM

LAST REVISION	REVISION	DESCRIPTION:				
07/01/15			FDOT FY 2017-18 DESIGN STANDARDS	SINGLE COLUMN GROUND SIGNS	INDEX NO. 11860	SHEET NO. 9 of 9