
ORIGINATION FORM

Proposed Revisions to a Standard Plans Index (Please provide all information — Incomplete forms will be returned)

Contact Information:

Date: June 15, 2020

Originator: Cheryl Hudson

Phone: (850) 414-4355

Email: cheryl.hudson@dot.state.fl.us

Standard Plans:

Index Number: 700-030

Sheet Number (s): 1 of 1

Index Title: Wind and Hanger Beams for Overhead Signs

Summary of the changes:

Change Note 6.A.b reference to ASTM B308 to ASTM B221 throughout Standard Plans as an administrative change.
Corrected Title block of Hanger Table.

Commentary / Background:

ASTM withdrew B308 so need to change it to ASTM B221 in all applications.

I-beam size label was incomplete as previously shown. Should be I 6x4x4.69 and Z 5/3.25 x 4.01

Other Affected Offices / Documents: (Provide name of person contacted)

Yes	No	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other Standard Plans –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FDOT Design Manual –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Basis of Estimates Manual –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Standard Specifications –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Approved Product List –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Construction –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Maintenance –

Origination Package Includes:

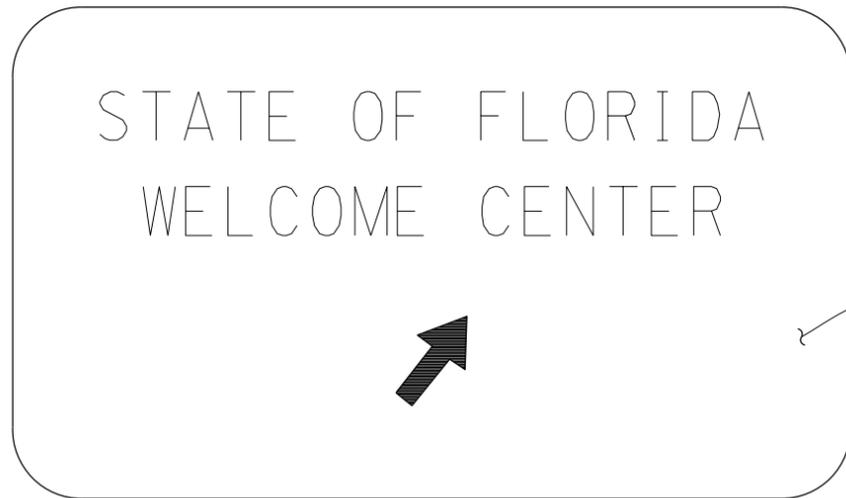
(Email or hand deliver package to Rick Jenkins)

Yes	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Redline Mark-ups
<input type="checkbox"/>	<input type="checkbox"/>	Proposed Standard Plan Instruction (SPI)
<input type="checkbox"/>	<input type="checkbox"/>	Revised SPI
<input type="checkbox"/>	<input type="checkbox"/>	Other Support Documents

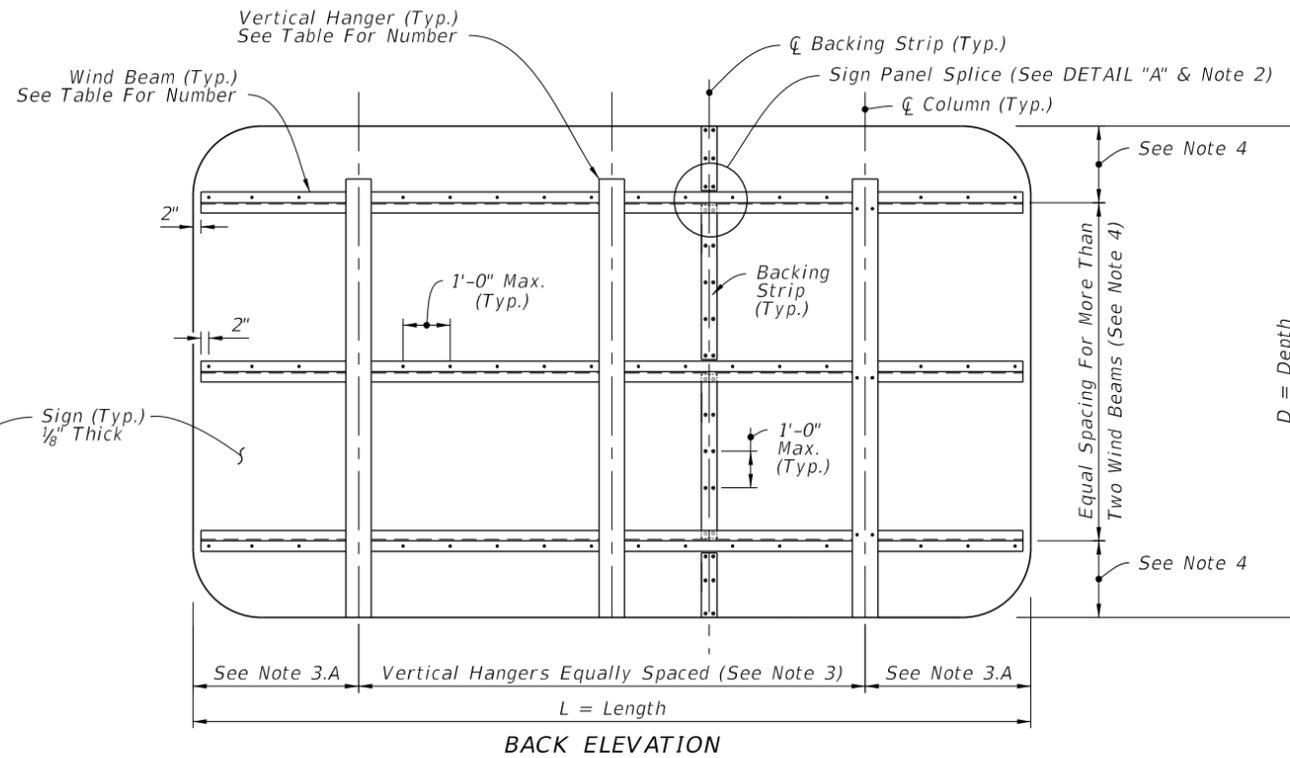
Implementation:

- Design Bulletin (Interim)
- DCE Memo
- Program Mgmt. Bulletin
- FY-Standard Plans (Next Release)

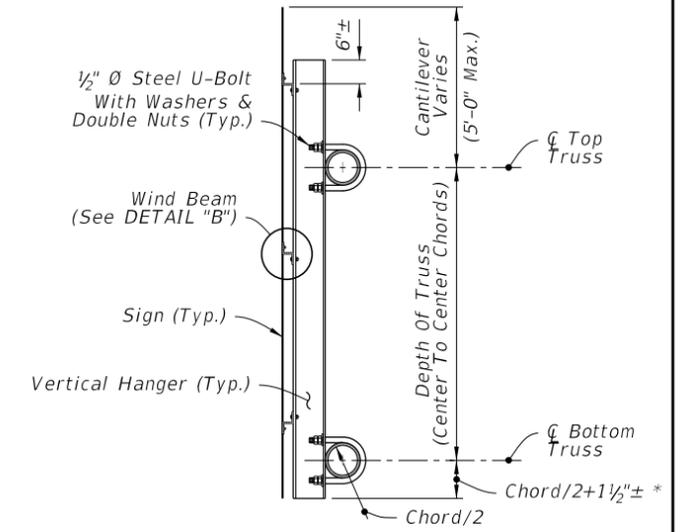
Contact the Roadway Design Office for assistance in completing this form



FRONT ELEVATION

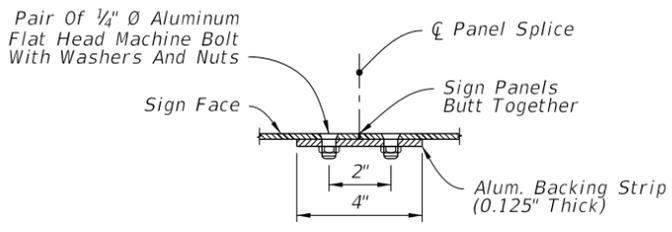


BACK ELEVATION

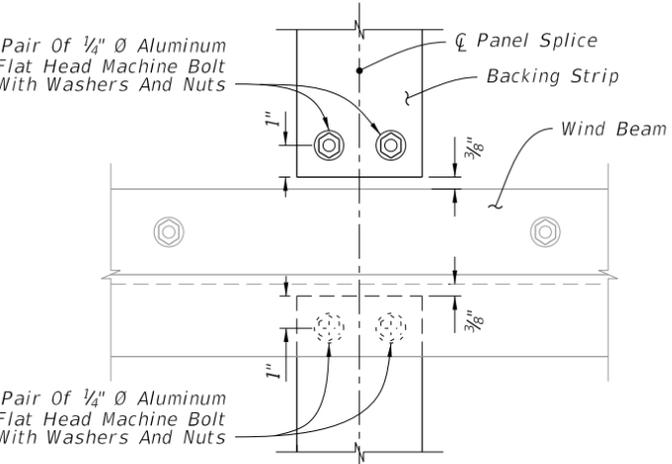


SIDE ELEVATION

TYPICAL SIGN FOR OVERHEAD TRUSS



PLAN VIEW



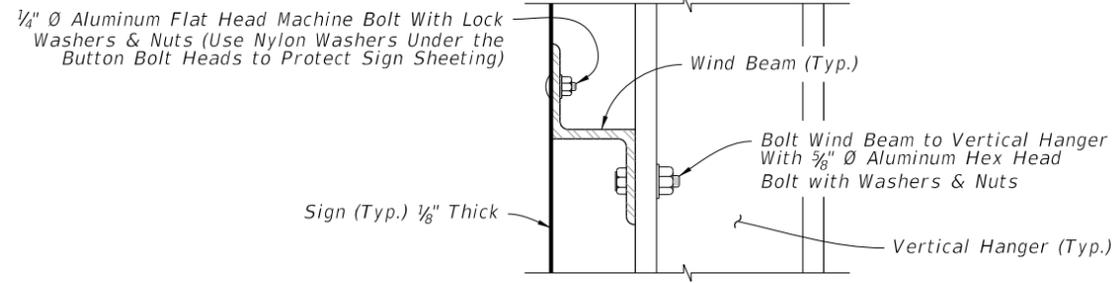
ELEVATION
SIGN PANEL SPLICE

DETAIL "A"

WIND BEAM TABLE (Z 3 x 2 1/16 x 2.33)					
Number of Horizontal Wind Beams Based on Sign Depth (D)					
2 Beams	3 Beams	4 Beams	5 Beams	6 Beams	
D ≤ 5'	5' < D ≤ 9'	9' < D ≤ 12'	12' < D ≤ 15'	15' < D ≤ 18'	

HANGER TABLE (I 6 x 4.69 or Z 5 x 3 1/4 x 6.19)					
Number of Vertical Hanger Beams Based on Wind Speed and Sign Length (L)					
	2 Hangers	3 Hangers	4 Hangers	5 Hangers	6 Hangers
130 mph	L ≤ 20'	20' < L ≤ 30'	30' < L ≤ 40'	40' < L ≤ 50'	--
150 mph	L ≤ 18'	18' < L ≤ 27'	27' < L ≤ 35'	35' < L ≤ 45'	45' < L ≤ 50'
170 mph	L ≤ 15'	15' < L ≤ 20'	20' < L ≤ 28'	28' < L ≤ 35'	35' < L ≤ 43'

NOTE: For Monroe County designs, use 170 mph values but with Z 5 x 3-1/4 x 6.19 vertical hanger beams only.



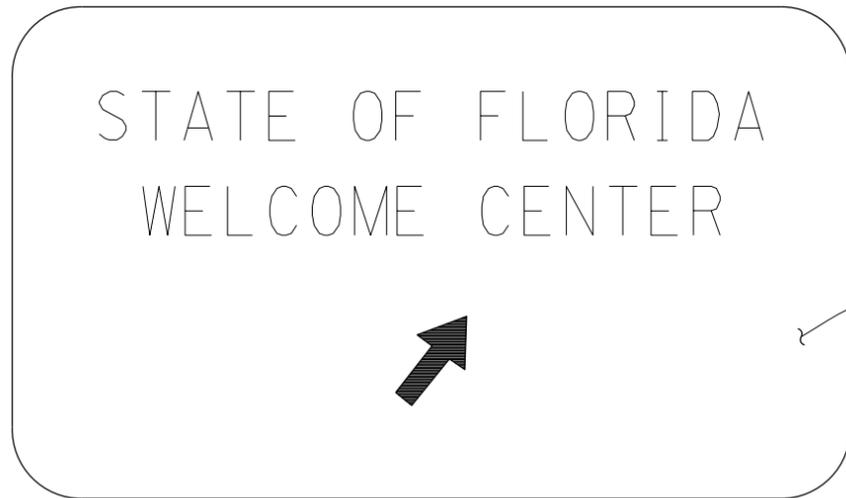
DETAIL "B"

GENERAL NOTES

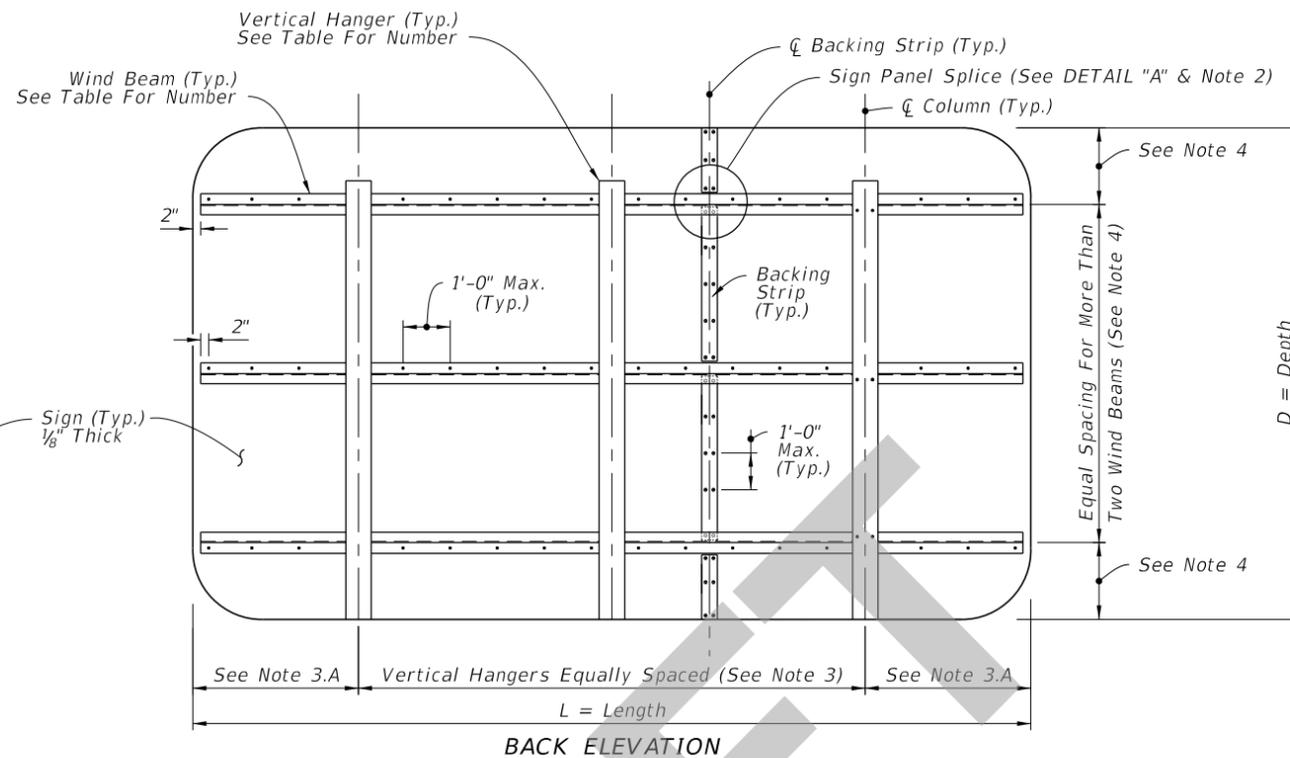
- Work this Index with Index 700-040 and 700-041.
- The number and location of the Panel Splices are determined by the Sign Face supplier.
- Spacing of Vertical Hangers:
 - A. Two Vertical Hanger = 21.0% L
 - Three Vertical Hanger = 15.0% L
 - Four Vertical Hanger = 11.0% L
 - Five Vertical Hanger = 9.0% L
 - Six Vertical Hanger = 7.0% L
 - B. Spacing of vertical hangers may be varied slightly as necessary to clear the truss struts and diagonals at panel points
- Spacing of Wind Beams:
 - Two Wind Beams = 21.0% D
 - Three Wind Beams = 15.0% D
 - Four Wind Beams = 11.0% D
 - Five Wind Beams = 9.0% D
 - Six Wind Beams = 7.0% D
- Shop Drawings:
 - A. Required for Sign Panels deeper than 10'-0" with a horizontal panel splice.
 - B. Splice must be located in between interior Zee Supports and only allowed on signs greater than 10'-0".
- Materials:
 - A. Aluminum:
 - a. Bars, and Extruded Shapes: ASTM B 221, Alloy 6061-T6 or Alloy 6351-T5
 - b. Structural Shapes: ASTM B 308, Alloy 6061-T6
 - c. Flat Head and Hex Head Machine Bolts: ASTM F 468, Alloy 2024-T4
 - d. Hex Nuts: ASTM F 467, Alloy 6061-T6 or Alloy 6262-T9
 - e. Washers: ASTM B 221, Alclad 2024-T4
 - B. Steel:
 - a. U-Bolts: ASTM A 449 or ASTM A 193 B 7
 - b. Nuts: ASTM A 563, 2 per leg
 - c. Washers: ASTM F 436, (Flat Washers)
- Coatings:
 - A. Aluminum Bolts, Nuts and Washers: Anodic (0.0002 inches min) and chromate sealed.
 - B. Galvanized Steel Bolts, Nuts and Washers: ASTM F 2329
- Wind Speed by county: see Index 715-010.

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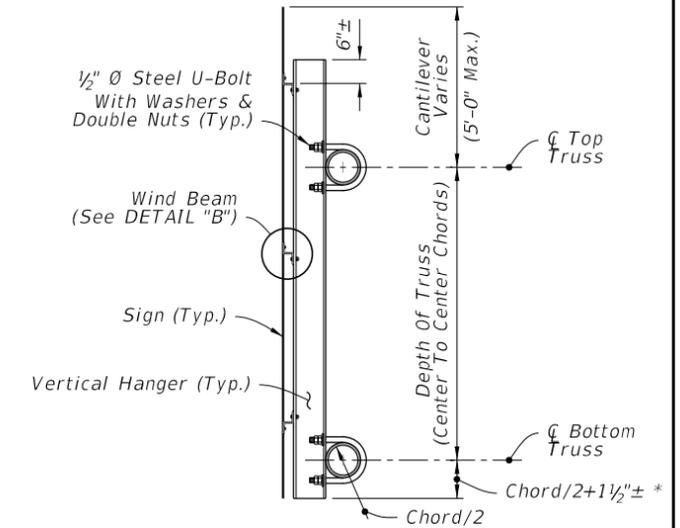
LAST REVISION	DESCRIPTION:
11/01/18	11/01/20



FRONT ELEVATION

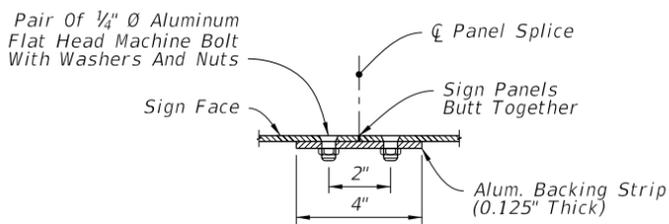


BACK ELEVATION

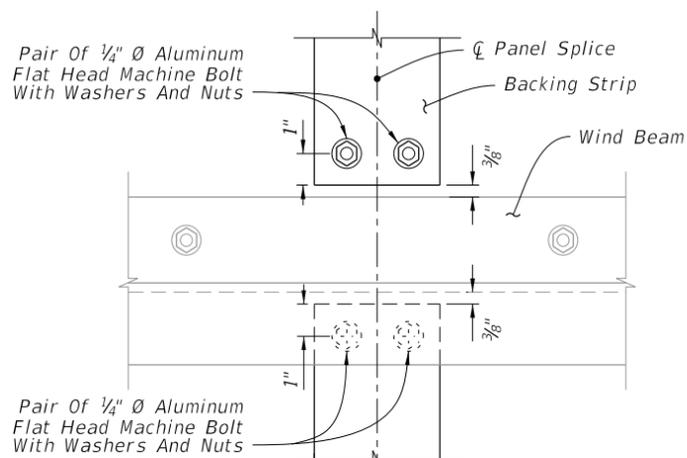


SIDE ELEVATION

TYPICAL SIGN FOR OVERHEAD TRUSS



PLAN VIEW



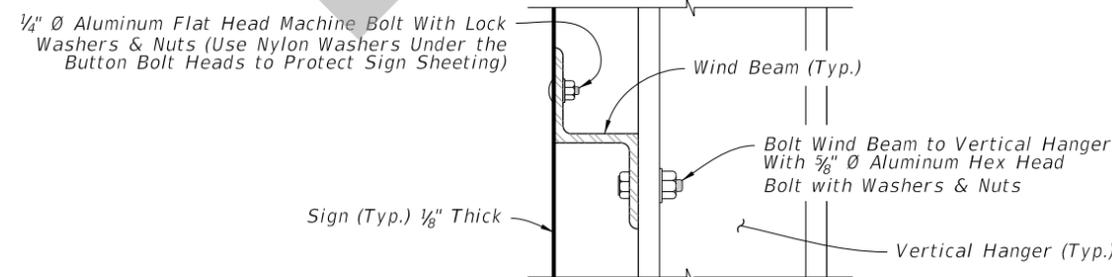
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 - Hex Nuts: ASTM F467, Alloy 6061-T6 or Alloy 6262-T9
 - Washers: ASTM B221, Alclad 2024-T4
 - Steel:
 - U-Bolts: ASTM A449 or ASTM A193 B7
 - Nuts: ASTM A563, 2 per leg
 - Washers: ASTM F436, (Flat Washers)
- Coatings:
 - Aluminum Bolts, Nuts and Washers: Anodic (0.0002 inches min) and chromate sealed.
 - Galvanized Steel Bolts, Nuts and Washers: ASTM F2329
- Wind Speed by county: see Index 715-010.

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