# ORIGINATION FORM

# Proposed Revisions to a Standard Plans Index

(Please provide all information — Incomplete forms will be returned)

<b>Contact Information:</b>	Standard Plans:		
Date: June 15, 2020	Index Number: 700-020		
Originator: Cheryl Hudson	Sheet Number (s): 1 of 3		
Phone: (850) 414-5332	Index Title: Multi-Column Ground Sign		
Email: cheryl.hudson@dot.state.fl.us			
<b>Summary of the changes:</b>			
Sheet 1: Change Note 3.A.b reference to ASTM B308 to A change.	STM B221 throughout Standard Plans as an administrative		
Commentary / Background:  ASTM withdrew B308-10 so we need to change it to ASTM B221			
Other Affected Offices / Documents: (Provide name of person contacted)			
Yes No Other Standard Plans –			
FDOT Design Manual –			

Basis of Estimates Manual –

Standard Specifications –

Approved Product List –

Construction –

Maintenance –

Origination Package Includes:

Implementation:

(Email or hand deliver package to Rick Jenkins)			Design Bulletin (Interim)	
$\checkmark$		Redline Mark-ups	Program Mgmt. Bulletin	
		Proposed Standard Plan Instruction (SPI)	FY-Standard Plans (Next Release)	
		Revised SPI		
		Other Support Documents		

Contact the Roadway Design Office for assistance in completing this form

#### 2. Shop drawings:

- A. Sign Support Shop drawings are not required when fabricated in accordance with this Index and support columns do not exceed the length shown in the plans by more than 2'-0".
- B. Sign Panels: Horizontal panel splices are allowed at interior wind beams for sign panels with a depth ("D") greater than 10 feet. Shop drawings required for horizontal panel splice details.
- C. When shop drawings are required, obtain approval prior to fabrication.

#### 3. Materials:

- A. Sign Panel Mounting Materials:
  - a. Aluminum Bars, and Extruded Shapes: ASTM B221, Alloy 6061-T6 or Alloy 6351-T5 b. Aluminum Structural Shapes: ASTM B308, Alloy 6061-T6
- B. Sign Support Structure Materials:
  - a. Steel Plates and Structural Shapes: ASTM A36 or ASTM A709, Grade 36
  - b. Steel Weld Metal: E70XX
  - c. Shims: Brass ASTM B36 or Galvanized Steel
- C. Aluminum Bolts, Nuts and Washers:
- a. Flat Head and Button Head Bolts: ASTM F 468, Alloy 2024-T4
- b. Hex Nuts: ASTM F467, 2024-T4
- c. Washers: ASTM B221, Alloy 2024-T4
- D. Stainless Steel Bolts, Nuts and Washers Alloy Group 2, Condition A, may be substituted for the Aluminum bolts as follows:
  - a. Bolts: ASTM F593, CW1 or SH1
  - b. Nuts: ASTM F594,
- E. High Strength (H.S.) Steel Bolts, Nuts and Washers:
  - a. Galvanized Hex Head Bolts: ASTM F3125, Grade A325, Type 1
  - b. Galvanized Nuts: ASTM A563 Hex, Grade DH
  - c. Galvanized Washers: ASTM F436
- F. Concrete: Class I.
- G. Reinforcing Bars or Welded Wire Reinforcement (WWR): Specification 415

#### 4. Coatings:

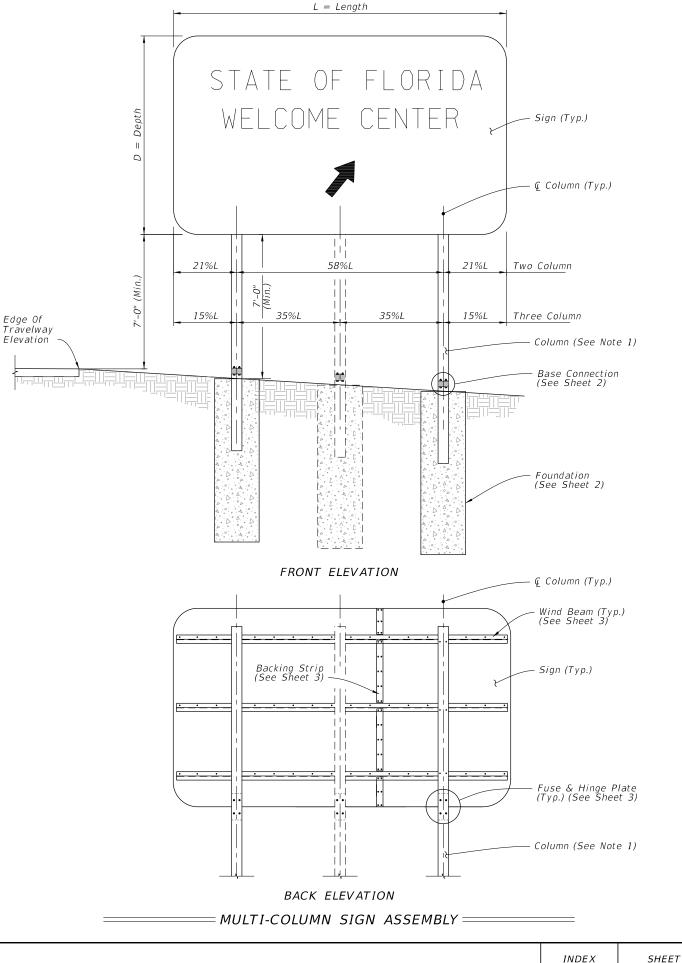
- A. Aluminum Fasteners: Anodic coating (0.0002 inches min.) and chromate sealed
- B. Galvanize High Strength Steel Bolts Nuts and Washers: ASTM F2329
- C. Galvanize all other steel items (excluding stainless steel): Hot-dip ASTM A123
- D. Treat damaged galvanizing in accordance with Specification 562

## 5. Fabrication:

- A. All Base Connections and Stub Column materials are steel unless otherwise
- B. Drill or sub-punch and ream holes in Fuse Plates and Hinge Plates
- C. Weld Base Plate to Post & Stub or if using the Alternate Connection Detail weld Base Plate and Stiffeners to Post and Stub (Sheet 2)
- D. Hot dip galvanize after fabrication; Remove all drips, runs or beads on base plate within washer contact areas (Including saw cuts)

### 6. Construction:

- A. Install the Sign Structure foundation in accordance with Specification 455. Orient Stub Post according to direction of traffic (Sheet 2)
- B. Tighten all high strength bolts except Base Bolts in accordance with Specification 700.
- C. Assemble Post to Stub with Base Bolts and three flat washers per bolt (See Base Connection Details, Sheet 2). Tighten Base Bolts in accordance with Instructions Notes on Sheet 2.



- 11/01/20

LAST REVISIO₩ 11/01/18

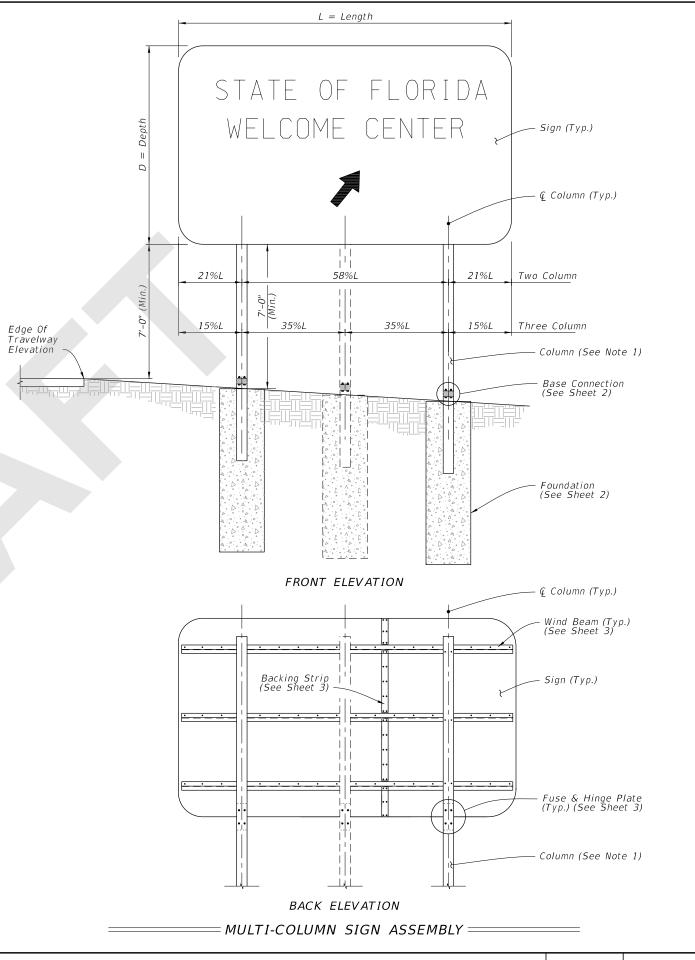
FDOT

#### **GENERAL NOTES:**

- 1. Verify Column lengths in the field prior to fabrication.
- 2. Shop drawings:
- A. Sign Support Shop drawings are not required when fabricated in accordance with this Index and support columns do not exceed the length shown in the plans by more than 2'-0".
- B. Sign Panels: Horizontal panel splices are allowed at interior wind beams for sign panels with a depth ("D") greater than 10 feet. Shop drawings required for horizontal panel splice details.
- C. When shop drawings are required, obtain approval prior to fabrication.
- 3. Materials:
- A. Sign Panel Mounting Materials:
- a. Aluminum Bars, and Extruded Shapes: ASTM B221, Alloy 6061-T6 or Alloy 6351-T5
- b. Aluminum Structural Shapes: ASTM B221, Alloy 6061-T6
- B. Sign Support Structure Materials:
  - a. Steel Plates and Structural Shapes: ASTM A36 or ASTM A709, Grade 36
- b. Steel Weld Metal: E70XX
- c. Shims: Brass ASTM B36 or Galvanized Steel
- C. Aluminum Bolts, Nuts and Washers:
  - a. Flat Head and Button Head Bolts: ASTM F 468, Alloy 2024-T4
  - b. Hex Nuts: ASTM F467, 2024-T4
- c. Washers: ASTM B221, Alloy 2024-T4
- D. Stainless Steel Bolts, Nuts and Washers Alloy Group 2, Condition A, may be substituted for the Aluminum bolts as follows:
  - a. Bolts: ASTM F593, CW1 or SH1
  - b. Nuts: ASTM F594,
- E. High Strength (H.S.) Steel Bolts, Nuts and Washers:
  - a. Galvanized Hex Head Bolts: ASTM F3125, Grade A325, Type 1
  - b. Galvanized Nuts: ASTM A563 Hex, Grade DH
  - c. Galvanized Washers: ASTM F436
- F. Concrete: Class I.
- G. Reinforcing Bars or Welded Wire Reinforcement (WWR): Specification 415
- 4. Coatings:
- A. Aluminum Fasteners: Anodic coating (0.0002 inches min.) and chromate sealed
- B. Galvanize High Strength Steel Bolts Nuts and Washers: ASTM F2329
- C. Galvanize all other steel items (excluding stainless steel): Hot-dip ASTM A123
- D. Treat damaged galvanizing in accordance with Specification 562
- 5. Fabrication:
- A. All Base Connections and Stub Column materials are steel unless otherwise
- B. Drill or sub-punch and ream holes in Fuse Plates and Hinge Plates
- C. Weld Base Plate to Post & Stub or if using the Alternate Connection Detail weld Base Plate and Stiffeners to Post and Stub (Sheet 2)
- D. Hot dip galvanize after fabrication; Remove all drips, runs or beads on base plate within washer contact areas (Including saw cuts)
- 6. Construction:

DESCRIPTION:

- A. Install the Sign Structure foundation in accordance with Specification 455. Orient Stub Post according to direction of traffic (Sheet 2)
- B. Tighten all high strength bolts except Base Bolts in accordance with Specification 700.
- C. Assemble Post to Stub with Base Bolts and three flat washers per bolt (See Base Connection Details, Sheet 2). Tighten Base Bolts in accordance with Instructions Notes on Sheet 2.



LAST **REVISION** 11/01/20

FDOT

FY 2021-22 STANDARD PLANS