CANTILEVER SIGN STRUCTURE NOTES

1. Design according to FDOT Structures Manual. Alternate Designs are not allowed.
2. Submit shop drawings for all work. Include:
   a. Field verification of all upright heights.
   b. Foundation elevations necessary to ensure minimum vertical clearances as per traffic plans.
   c. Anchor bolt orientation with respect to centerline of truss and the direction of traffic.
   d. Show chord splices a minimum distance of 2 truss panel lengths apart. "SD" Panel from upright is the closest panel in which a chord splice may be used. See plans for Cantilever Sign Structure Data Table. Upright splices are not allowed.

3. Shop Fabrication, Assembly, Handling and Shipping:
   a. Do not begin fabrication before receiving shop drawing approval.
   c. Shop assemble the entire structure after galvanizing and prior to shipment.
   d. If necessary, disassemble and secure components for shipment.

4. Sign Structure Materials:
   a. Upright and Chords (Steel Pipe): API -SL-X42, 42 ksi yield or ASTM A 500, Grade B (min).
   b. Steel Angles: ASTM A 709, Grade 36.
   c. Steel Plates: ASTM A 709, Grade 36.
   d. Weld Metal: E70XX.
   e. Bolts: ASTM A 325, Type 1 (install per Specification Section 700) with single, self-locking nuts.
   f. Anchor Bolts: ASTM F 1554, Grade 55 with ASTM A 563 Grade A heavy-hex double nuts.
   g. Install all nuts per manufacturer's instructions.
   h. Bolt hole diameters: equal to the bolt diameter plus 1/8".
   i. Anchor bolt hole diameters: equal to the bolt diameter plus 1/8".
   j. Use of split lock washers is not permitted.

5. Galvanization: Nuts, bolts and washers: ASTM F2329. Other steel items: ASTM A 123


7. Foundation Materials:
   a. Reinforcing Steel: ASTM A 615, Grade 60.
   b. Concrete: Class IV, minimum 5.5 ksi compressive strength at 28-days for all environmental classifications for Spread Footing. Class IV (Drilled Shaft), minimum 6.0 ksi compressive strength at 28-days for all environmental classifications for Drilled Shaft.

8. Construct the Sign Structure foundation in accordance with FDOT Specification Section 455.

9. Prior to erection, record the as-built anchor locations and provide to the Engineer.

10. After placement of the upright and prior to installation of the truss, adjust the leveling nuts beneath the base plate to achieve the back rake shown on the Camber Diagram.

11. Place backfill above the footing prior to installation of the sign panels. Do not remove or reduce in height without prior approval of the Engineer.

12. Install sign panels as shown on the Elevation drawing.

13. Verify CSL access tubes will not interfere with anchor bolt installation before excavating the shaft. When CSL access tube locations conflict with anchor bolt locations, move the CSL access tube location a two inches along the inner circumference of the reinforcing cage. Notify the Engineer before excavating the shaft if the CSL access tube locations cannot be moved out of conflict with anchor bolt locations.


NOTE: See Plans for Cantilever Sign Structure Data Table.
FOOTING PLAN

FOOTING ELEVATION

VIEW A-A

PLAN VIEW

DRILLED SHAFT

ELEVATION DRILLED SHAFT
(Alternate Foundation)

SECTION B-B

DETAIL C

NO.

INDEX

NO.

NO.

DESCRIPTION:

REV IS IO N

FDOT 2014
DESIGN STANDARDS

CANTILEVER SIGN STRUCTURE

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11310

SH E ET NO.

2 of 5
CANTILEVER SIGN STRUCTURE

VIEW I-J
VIEW K-K Similar
(Out-of-Plane Members not shown for clarity)

Chord Splices not shown
Span Length, comprised of 'N' Equal Panels

FRONT OF TRUSS ELEVATION
(Back Truss Chord and attached Angles not shown for clarity)
**CANTILEVER SIGN STRUCTURE**

**Description:**

- **UPRIGHT CAP DETAIL**
  - Upright Pipe
  - 1½" Min.
  - W" Plate (Cap)
  - ⅝" Hole; Tack Weld
  - ⅝" Thick Neoprene Gasket (Clued to Cap)
  - W" Hex Head Bolt w/ Rubber Washer (Top)

- **SECTION R-R**
  - PLUG DETAIL
  - W" Bar

- **SECTION S-S**
  - (Showing Cap plate only)

**NOTE:**
Abbreviation
OD = Outside Diameter

**Connection Detail:**

- Wrap Fillet Weld Around Plate Termination on the Tube Wall (Typ.)
- Plate is skewed to plane of view

**Revision Details:**

- **DETAIL L**
  - 'GA' ℅ 'GD' x 'GD'
- **DETAIL M**
  - 'EA' ℅ 'EB' x 'EC'
- **DETAIL N**
  - 'GB' ℅ 'GH' x 'E'
- **DETAIL O**
  - 'GA' ℅ 'GF' x 'GA'
- **DETAIL P**
  - 'GA' ℅ 'GD' x 'GD'

**Materials:**

- ⅝" for ⅝" Ø Bolts
- ⅝" for ⅝" Ø Bolts
- 1½" for 1½" Ø Bolts
- 1½" for 1½" Ø Bolts
- ⅝" for ⅝" Ø Bolts
- ⅝" for ⅝" Ø Bolts
- ⅝" for ⅝" Ø Bolts
- ⅝" for ⅝" Ø Bolts
- ⅝" for ⅝" Ø Bolts

**Termination on the Tube Wall (Typ.):**

- Wrap Fillet Weld Around Plate Termination on the Tube Wall (Typ.)

**Revision History:**

- **REVISION 07/01/13**

**Last Revision:**

- **07/01/13**