SUGGESTED POSITIONING PLATE

2", typ.

4" (Typ.)

2'-6"
Bolt Circle

ANCHOR ROD DETAIL

For UT. grind top of rod square and smooth before galvanizing.

Utilize positioning plate and temporary nuts with leveling nuts or other Engineer approved methods to maintain anchor bolts' alignment during concrete placement. Plate, extra nuts and other positioning aids become Contractor's property.

Protect threads during concreting with tape, sleeves, or other means.

*** 18" is minimum to be galvanized. Entire rod may be galvanized at Contractor's option.

All Thread = NC (National Coarse)

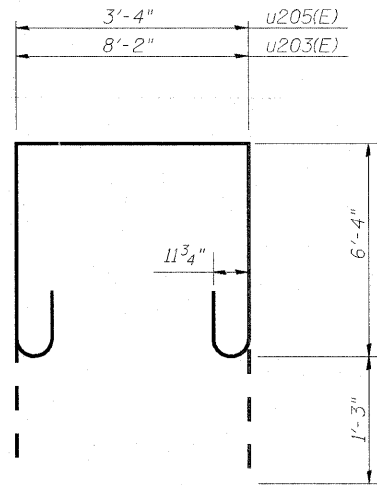Provide 1 uncoated nut per rod. Deform thread or use chemical thread lock to secure.

6'-0"
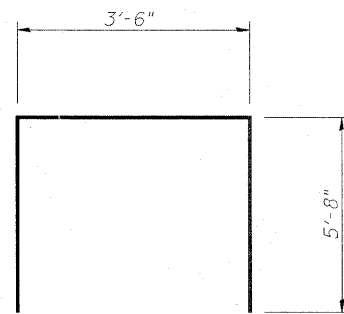18" Galvanized***
8" min. Threaded
2" ∅
4" Threaded

Anchor rods shall conform to AASHTO M314 Grade 105 and meet Charpy V-Notch (CVN) energy of 15 lb.-ft. at 10° F. before galvanizing. Galvanize the upper 18" (minimum***) and associated M291, Grade A, C or DH heavy hex nuts and hardened washers per AASHTO M232. No welding shall be permitted on rods. Provide an unfinished nut at bottom, a hexagon locknut and washer above base plate and a leveling nut and washer below base plate. Nuts shall each be tightened with 200 lb.-ft. minimum torque against base plate. Before or after threading, but before galvanizing, each anchor rod shall be ultrasonically tested (UT) by a Level II or III inspector, qualified in accord with ANSI guidelines, using a straight beam, ½" ∅ 3.5 mhz. transducer, to insure no rejectable flaws exist in the upper 18" (tension criteria).
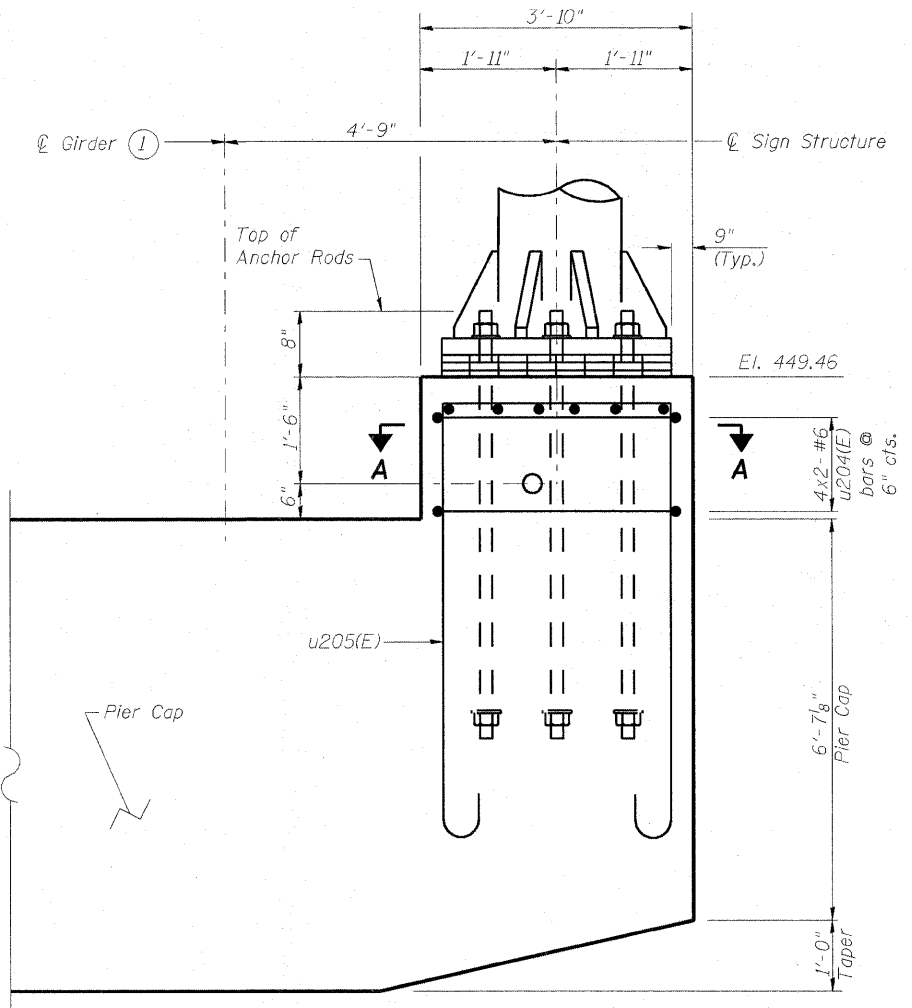
NOTES:

1. Work this sheet with Pier-Unit 3-Pier 10-Plans & Elevation sheet.

2. Place pedestal reinforcement to miss anchor rods.

3. Contractor shall coordinate installation with approved shop drawings for overhead sign.

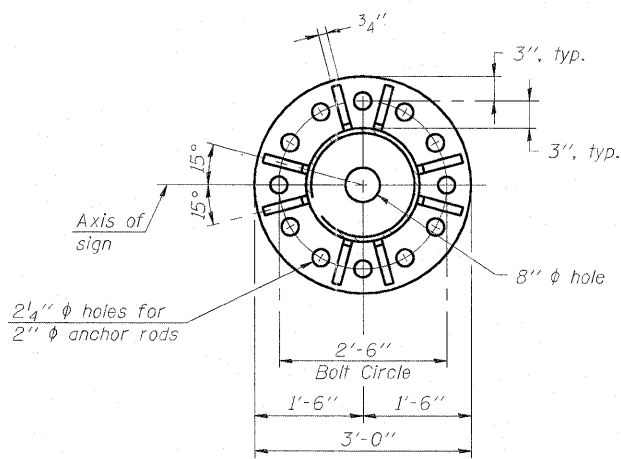4. Anchor rods shall be included in the cost of Concrete Structures.
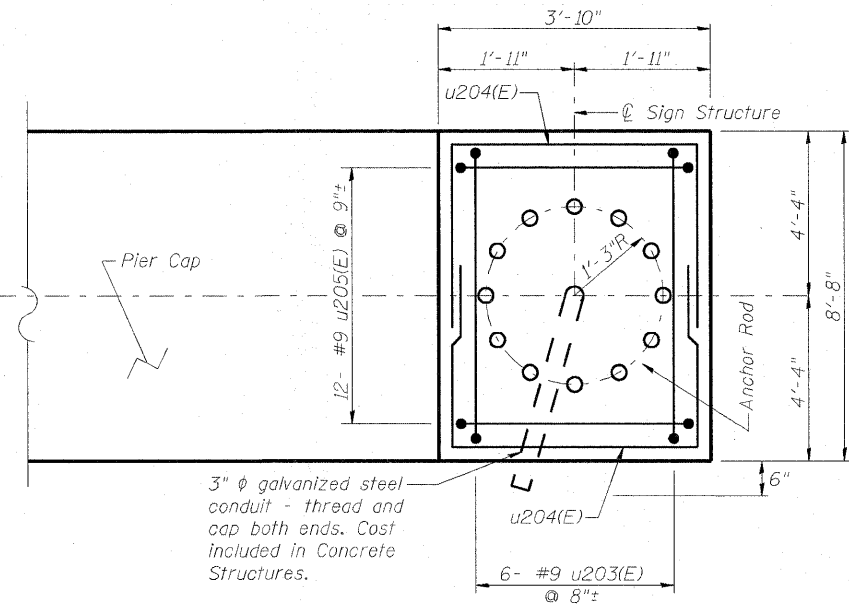
BARS u203(E) & u205(E)

3'-4" u205(E)
8'-2" u203(E)
11¾"
6'-4"
1'-3"

BAR u204(E)

3'-6"
5'-8"

BASE PLATE

For reference only. Base plate included with sign structure.

3"
3", typ.
3", typ.
15°
15°
15°
Axis of sign
2¼" ∅ holes for 2" ∅ anchor rods
8" ∅ hole
2'-6"
Bolt Circle
1'-6" 1'-6"
3'-0"

DETAIL 1

3'-10"
1'-11" 1'-11"

℄ Girder ①
4'-9"
℄ Sign Structure

Top of Anchor Rods
9" (Typ.)
8"
El. 449.46
1'-6"
6"

u205(E)

Pier Cap

4x2 - #6 u204(E) bars @ 6" cts.

6'-7⅛" Pier Cap

1'-0" Taper

SECTION A-A

3'-10"
1'-11" 1'-11"
u204(E)
℄ Sign Structure

4'-4"
8'-8"
4'-4"

12 - #9 u205(E) @ 9"

1'-3"R

Pier Cap

℄ Pier

Anchor Rod

3" ∅ galvanized steel conduit - thread and cap both ends. Cost included in Concrete Structures.

u204(E)

6"

6 - #9 u203(E) @ 8"±

AECOM	USER NAME =	DESIGNED - DDB	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER – UNIT 3 – PIER 10 – LIGHT POLE DETAILS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - BRD	REVISED -			I-70E OVER I-55, CSX & KCS RAILROADS	70	82-1-B-2	ST. CLAIR	399	295
	PLOT SCALE = 0.166667 '/ IN.	CHECKED - LLV	REVISED -				S.N. 082-0322 & S.N. 082-0324		CONTRACT NO. 76C76		
	PLOT DATE = 6/30/2011	DATE - 07-01-11	REVISED -	SCALE:		SHEET S-168 OF S-234 SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			