

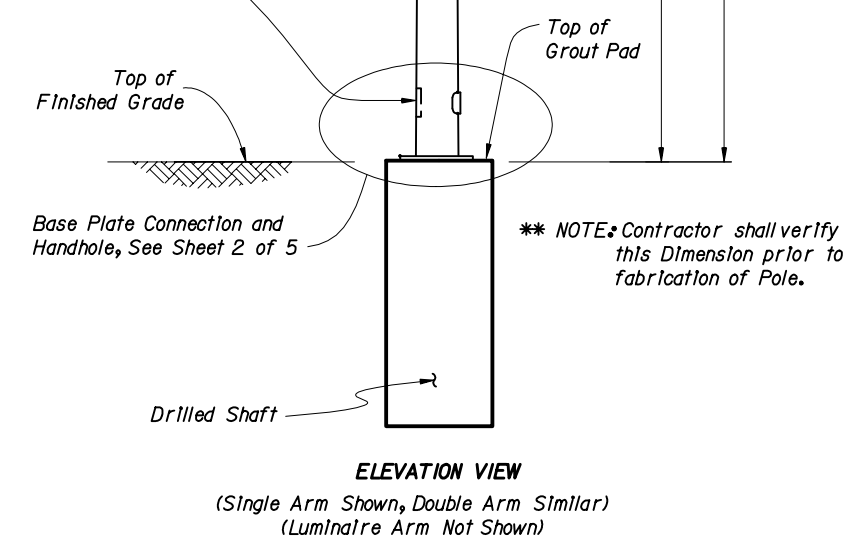
Aluminum Identification Tag Not to Exceed 2" x 4". Secure to Pole by 0.25" Stainless Steel rivets or screws. Fabricators to provide details for approval. Identification Tag Located on Inside of Pole visible from handhole, or on outside of pole inside terminal compartment. Tag to be stamped with the following information:

<i>Standard Design</i>	<i>Special Design</i>
Financial Project ID	Financial Project ID
Pole Type	Pole Base Diameter (In.)
Arm Type	Pole Wall Thickness (In.)
Manufacturer's Name	Arm Diameter at Pole (In.)
Certification No.	Arm Wall Thickness (In.)
	Manufacturer's Name

MAST ARM ASSEMBLIES GENERAL NOTES

- 1) Signal Structure Materials shall be as follows:
 - Poles & Mast Arms --> ASTM A1011 Grade 50, 55, 60 or 65 (less than 1/4") or ASTM A572 Grade 50, 55, 60 or 65 (1/4" and over) or ASTM A595 Grade A (55 ksi yield) or Grade B (60 ksi yield)
 - Steel Plates --> ASTM A709 Grade 36 or ASTM A36
 - Weld Metal --> E70XX
 - Bolts (except Anchor Bolts) --> ASTM A325 Type I
 - Anchor Bolts --> ASTM F1554 Grade 55 ksi
 - Nuts for Anchor Bolts --> ASTM A563 Grade A Heavy Hex
 - Washers for Anchor Bolts --> ASTM F436 Type I
 - Handhole Frame --> ASTM A709 Grade 36 ksi or ASTM A36
 - Handhole Cover --> ASTM A1011 Grade 50, 55, 60 or 65 ksi
 - Caps --> ASTM A1011 Grade 50, 55, 60 or 65 ksi or ASTM B209
 - Nut Covers --> ASTM B26 (319-F)
 - Stainless Steel Screws --> AISI Type 316
 - Threaded Bars/Studs --> ASTM A36 or ASTM A307
- 2) Reinforcing Steel shall be ASTM A615-96, Grade 60 ksi.
- 3) Concrete shall be Class **IV** (Drilled Shaft) with a minimum 28-day compressive strength of 4,000 psi for all environmental classifications.
- 4) Grout shall have a minimum 28-day compressive strength of 5,000 psi and shall meet the requirements of Section 934.
- 5) All welding shall conform to American Welding Society Structural Welding Code (Steel) ANSI/AWS D1.1 (current edition).
- 6) All steel items shall be galvanized as follows:
 - All Nuts, Bolts, Washers and Threaded Bars/Studs --> ASTM A153 Class C or D depending on size
 - All other steel items --> ASTM A123 (Including Pole & Mast Arm)
- 7) Locate handhole 180° from arm on single arm poles or 180° from first arm of double arm poles or see special instructions on Mast Arm Tabulation Sheet.
- 8) Except for Anchor Bolts, all bolt hole diameters shall be equal to the bolt diameter plus 1/16", prior to galvanizing. Hole diameters for Anchor Bolts shall not exceed the bolt diameter plus 1/2".

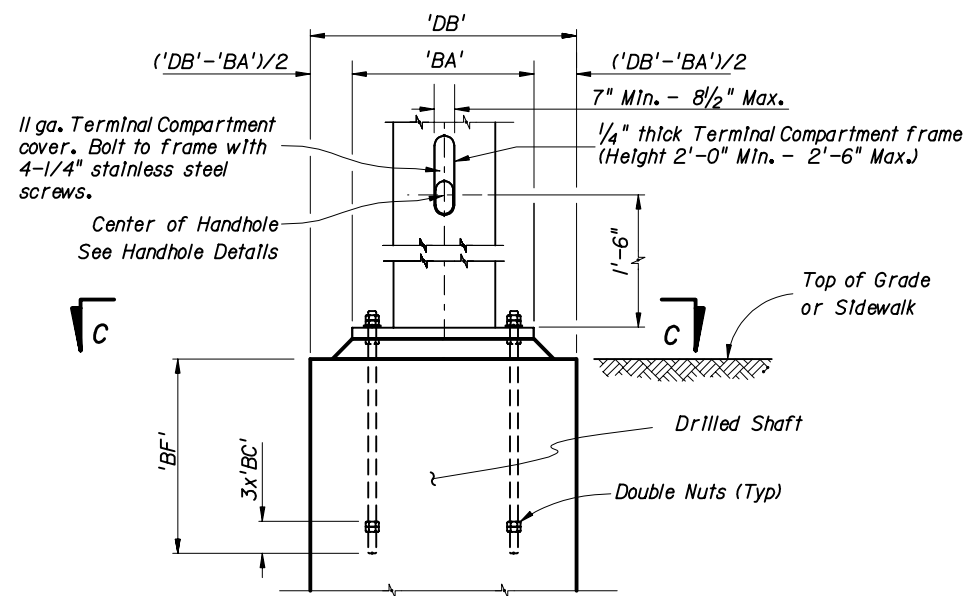
- 9) Sign Panels and Signals attached to the Mast Arm shall be centered in elevation on the arm. Sign Panels shall be aluminum. Wire access holes shall not exceed 1 1/2" in diameter.
- 10) Mast Arms and Poles shall be tapered with the diameter changing at a rate of 0.4 Inch per foot.
- 11) The Pole shall be installed vertically. Camber shall be accounted for in the Mast Arm connection as detailed.
- 12) If a Mast Arm damping device is required by the Engineer, it shall be installed within eight feet of the Mast Arm tip.
- 13) Alternate Designs for Special Mast Arm Assemblies are not allowed.
- 14) Provide "J"-Hook at top of pole for signal cable support.
- 15) Do not erect pole until foundation concrete has cured for a minimum of seven days.
- 16) First and Second Arm Camber Angle = 2°.
- 17) Details for the Ground Rod, Signal and Sign Locations, Signal Head Attachment, Sign Attachment, Pedestrian Head Attachment, and Foundation Conduit are not shown for clarity.
- 18) Work this Index with Structures Standard Nos. S-1700 and S-1710 as necessary.



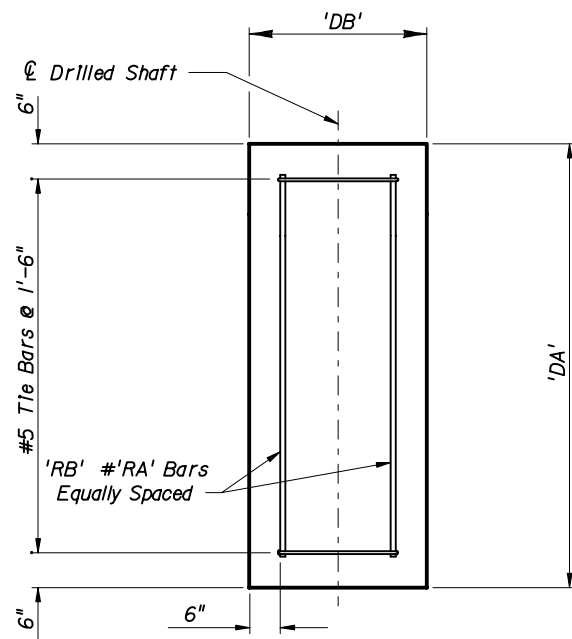
ELEVATION VIEW
(Single Arm Shown, Double Arm Similar)
(Luminaire Arm Not Shown)

TYPICAL ELEVATION AND NOTES

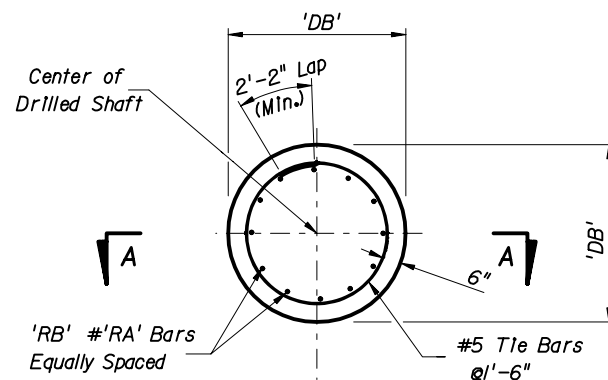
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
MAST ARM ASSEMBLIES				
Designed By	CH	6-02	Approved By <i>[Signature]</i> State Structures Design Engineer	
Drawn By	CH	6-02	Revision	Sheet No. Index No.
Checked By	AVP	6-02	04	1 of 5 17745



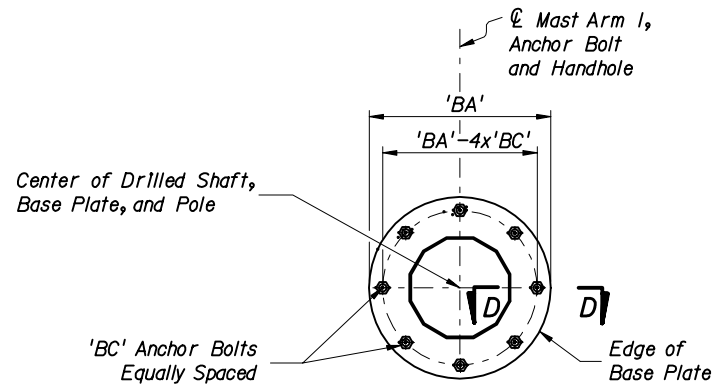
BASE PLATE AND ANCHORAGE ELEVATION
(Reinforcement Not Shown)



SECTION A-A

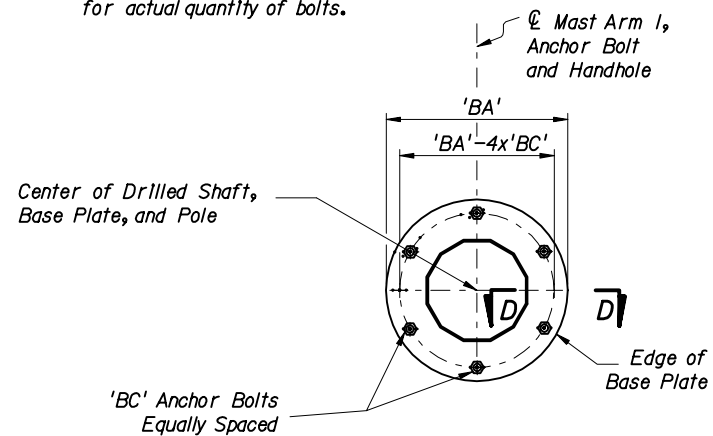


FOUNDATION PLAN
Note: 6" min. cover on Shaft Reinforcement

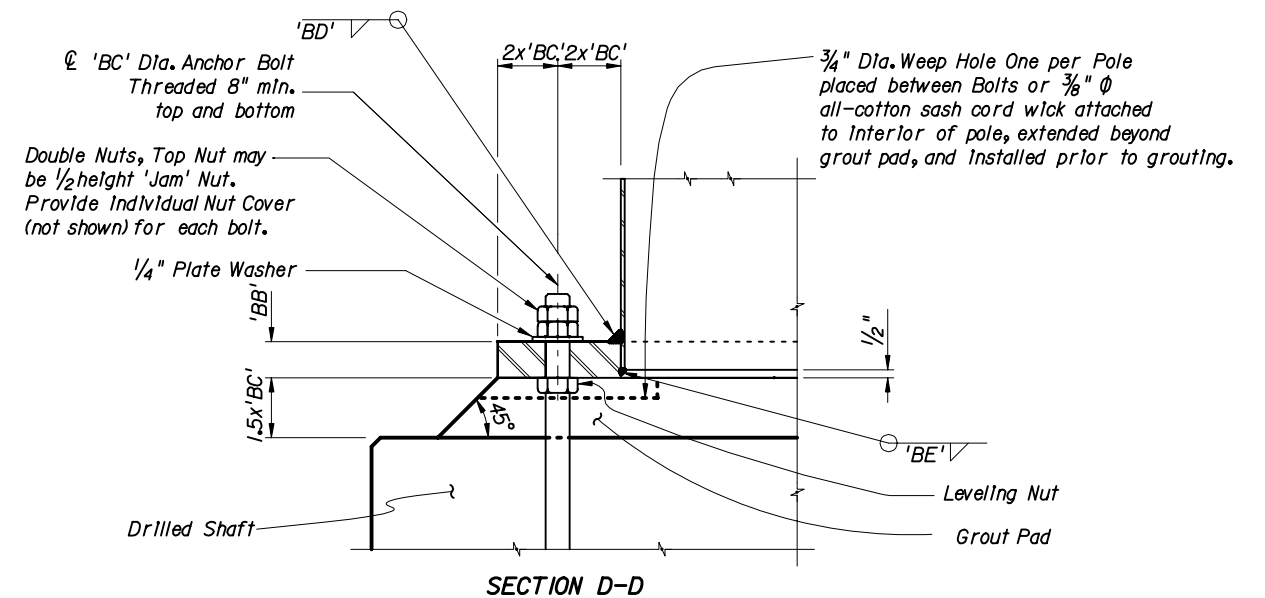
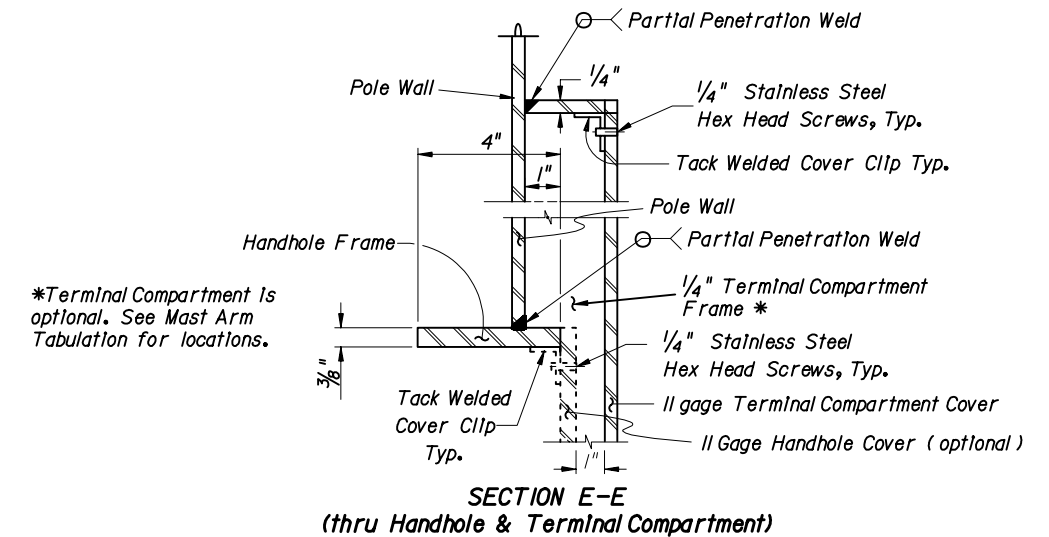
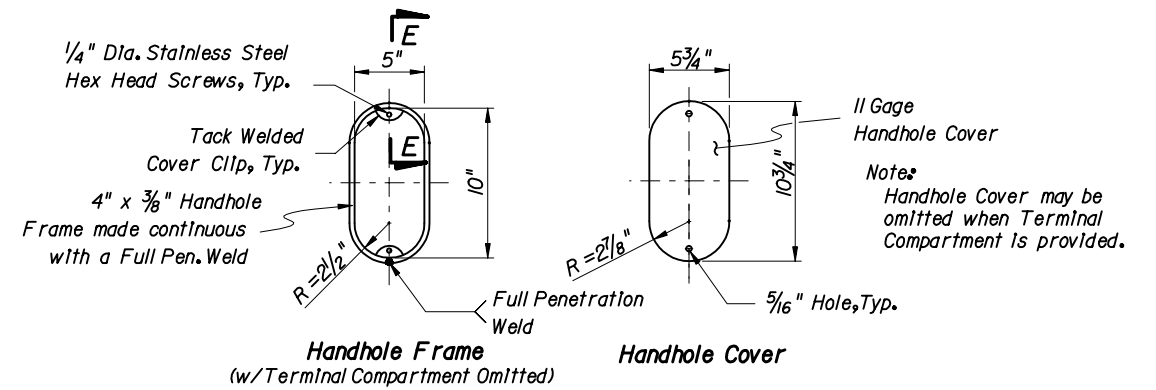


SECTION C-C
(8 Anchor Bolts)

NOTE: See Index Nos. I7742 and I7743 and Structures Standard Drawing S-1710 for actual quantity of bolts.

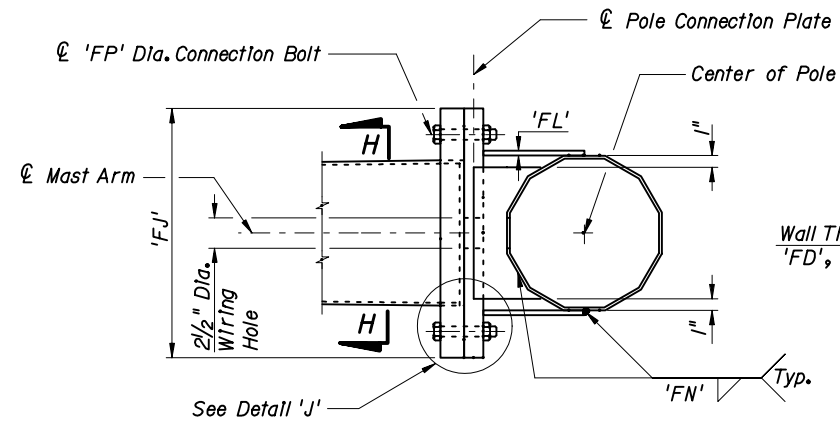


SECTION C-C
(6 Anchor Bolts)

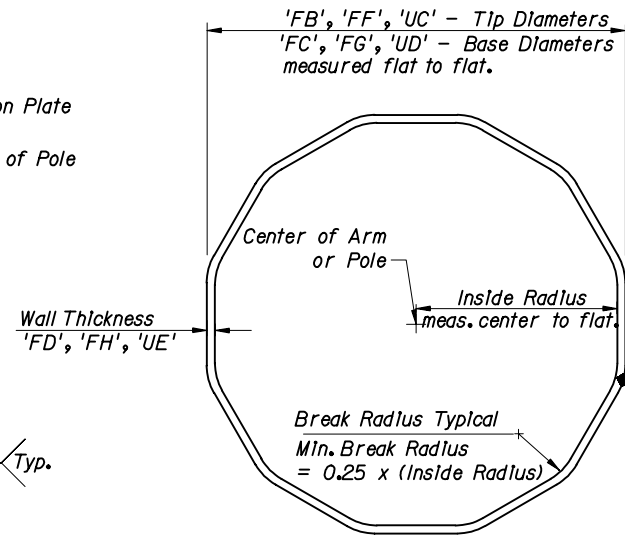


TYPICAL FOUNDATION AND BASE PLATE DETAILS

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
MAST ARM ASSEMBLIES				
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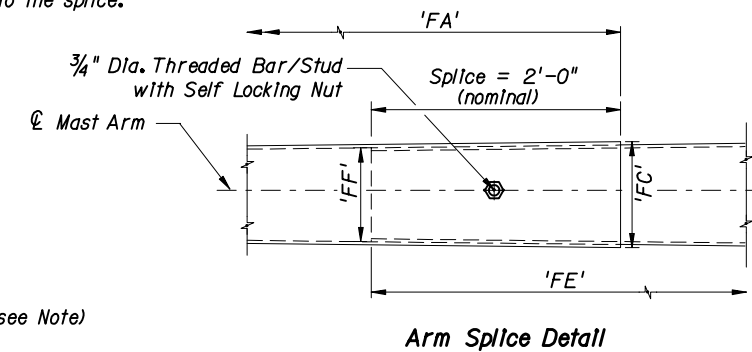
SECTION F-F



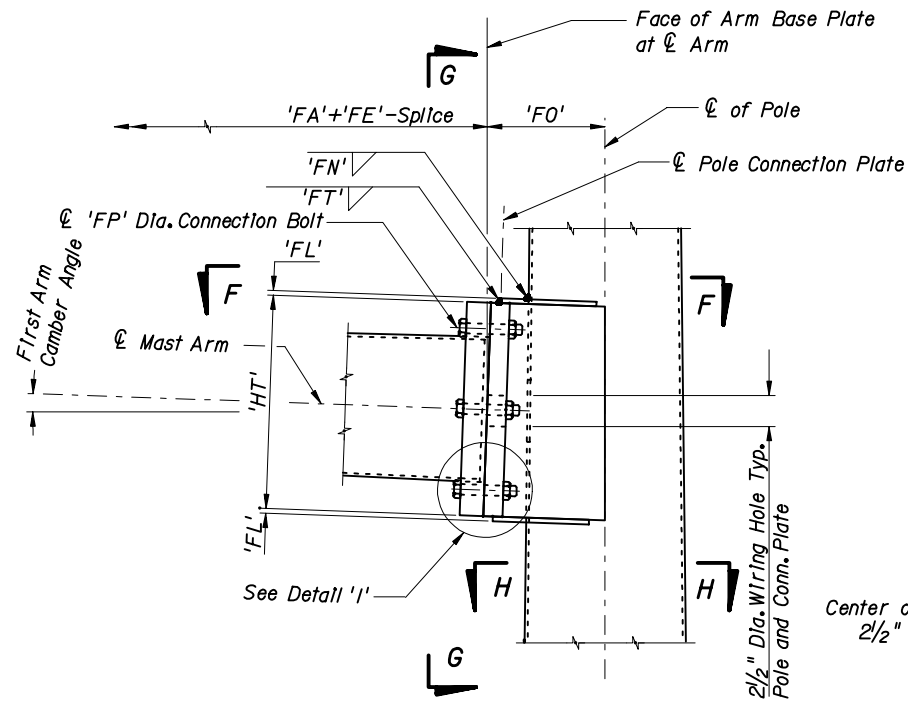
SECTION H-H

NOTE: Longitudinal seam welds within six inches of circumferential welds shall be complete penetration welds. Longitudinal seam welds at telescopic field spllices shall be complete penetration welds for the splice length plus six inches.

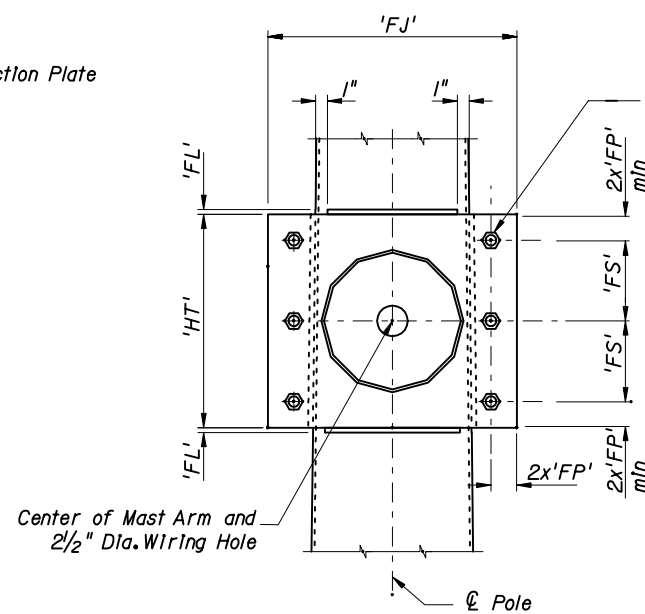
The 'Slip Joint' splice shall be a tight fit with no change in the Mast Arm slope due to the splice.



Arm Splice Detail

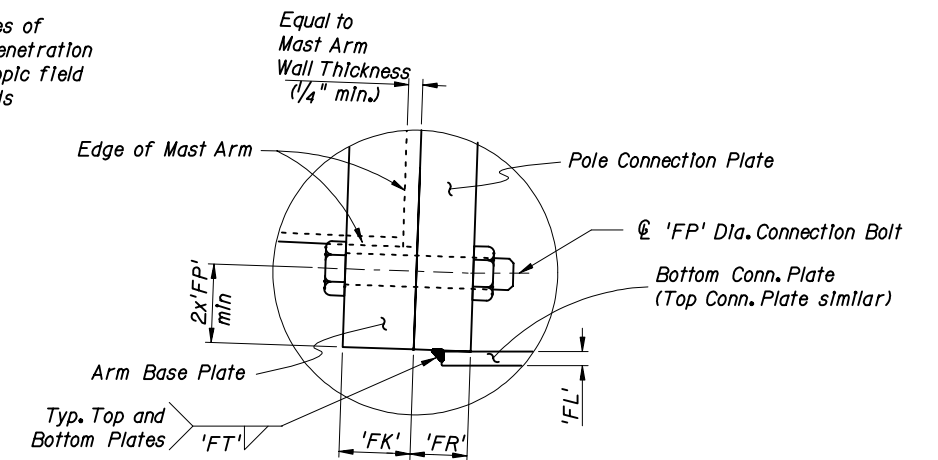


ELEVATION
(Single Arm Connection)

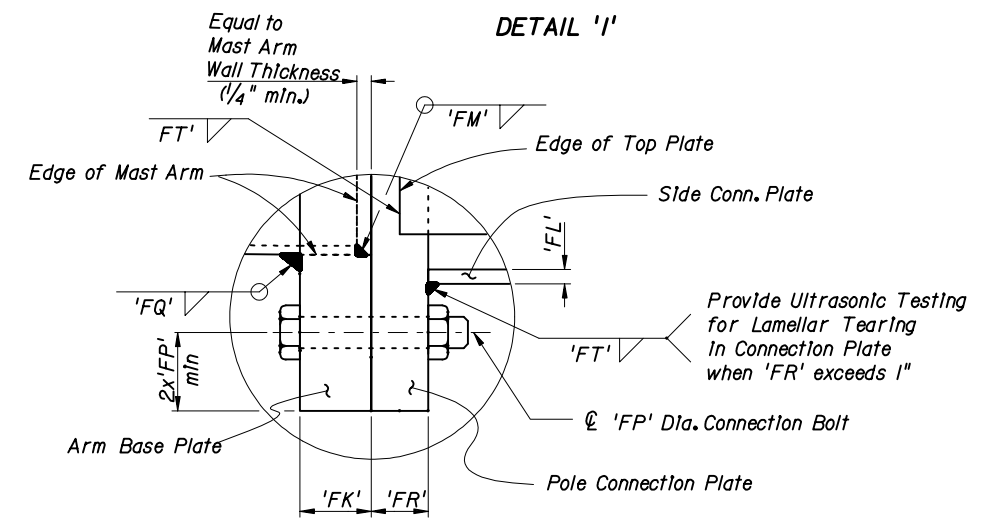


SECTION G-G

Six 'FP' dia. Connection Bolts (may vary for Special Design)



DETAIL 'I'



DETAIL 'J'

NOTE:

1. Details shown on this sheet are for 12 sided pole sections. However, sections with more than 12 sides and round sections are permitted provided outside diameter and wall thickness are not reduced.
2. Mast Arm and Connection Plates shall be match marked to ensure proper assembly.

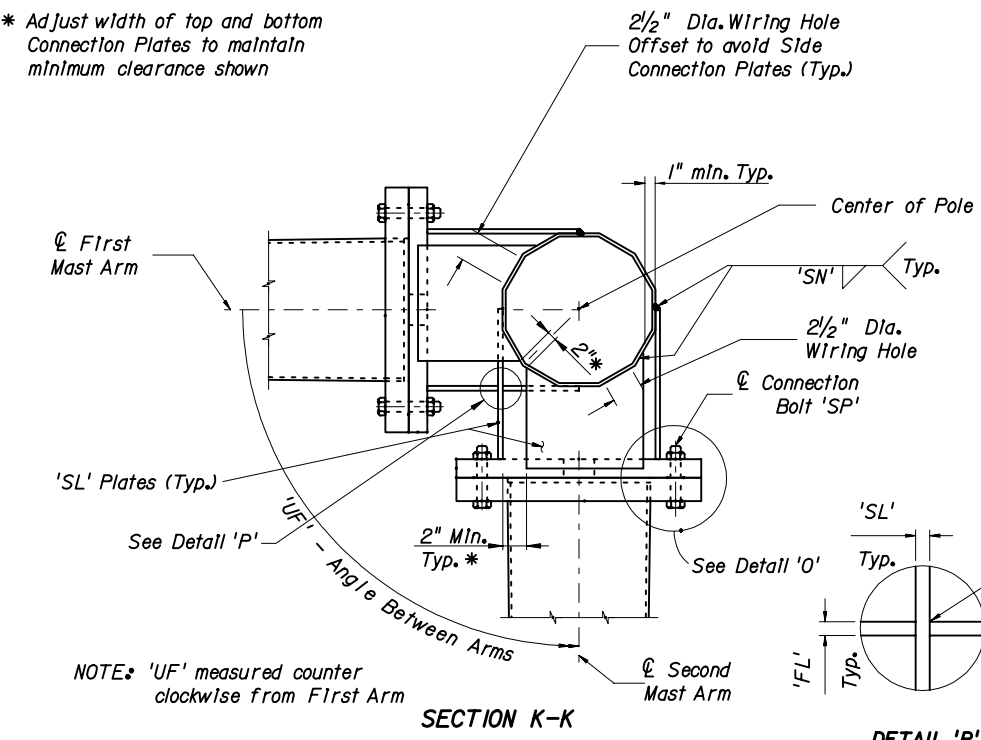
TYPICAL SINGLE ARM CONNECTION DETAILS

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

MAST ARM ASSEMBLIES

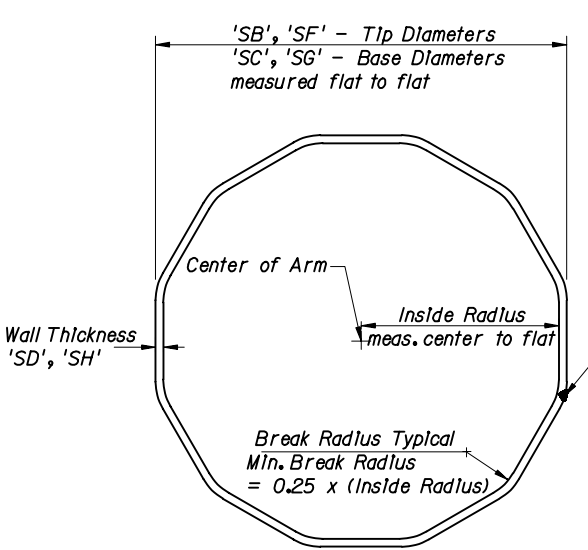
Names	Dates	Approved By				
Designed By	CH	6-02	 State Structures Design Engineer			
Drawn By	CH	6-02			Revision	Sheet No.
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* Adjust width of top and bottom Connection Plates to maintain minimum clearance shown



NOTE: 'UF' measured counter clockwise from First Arm

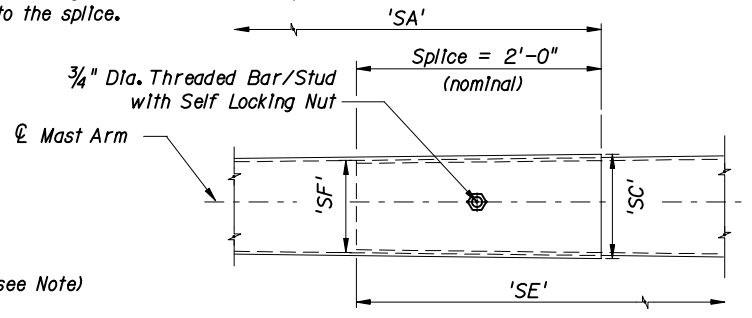
SECTION K-K



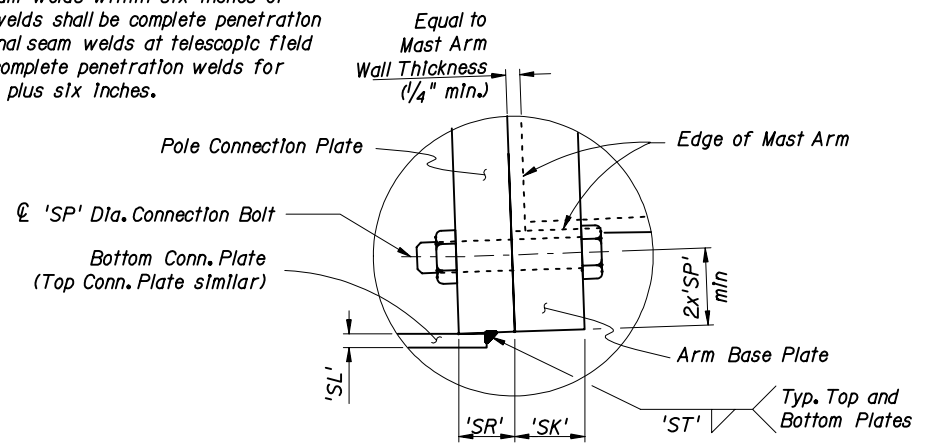
SECTION M-M

NOTE: Longitudinal seam welds within six inches of circumferential welds shall be complete penetration welds. Longitudinal seam welds at telescopic field splices shall be complete penetration welds for the splice length plus six inches.

The 'Slip Joint' splice shall be a tight fit with no change in the Mast Arm slope due to the splice.

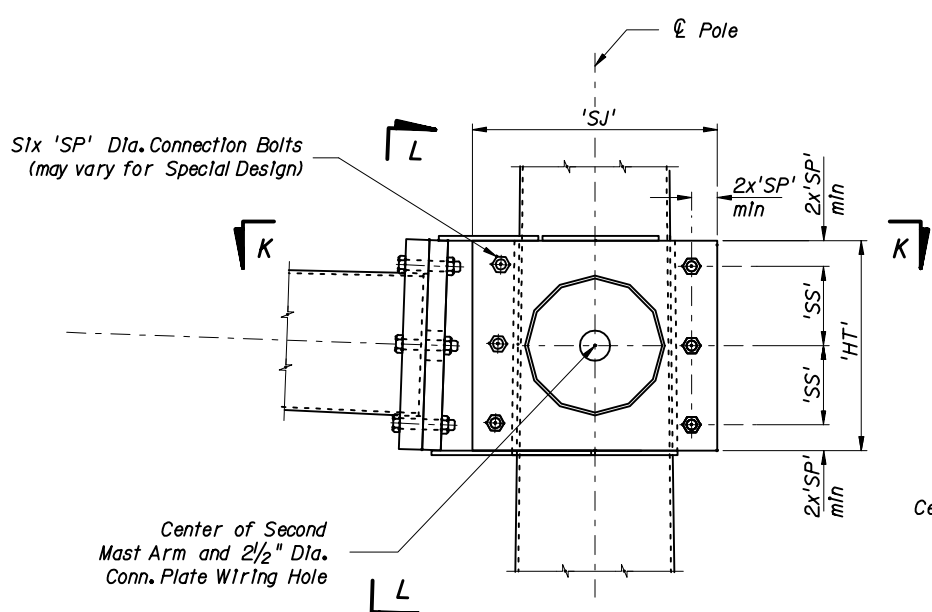


Arm Splice Detail

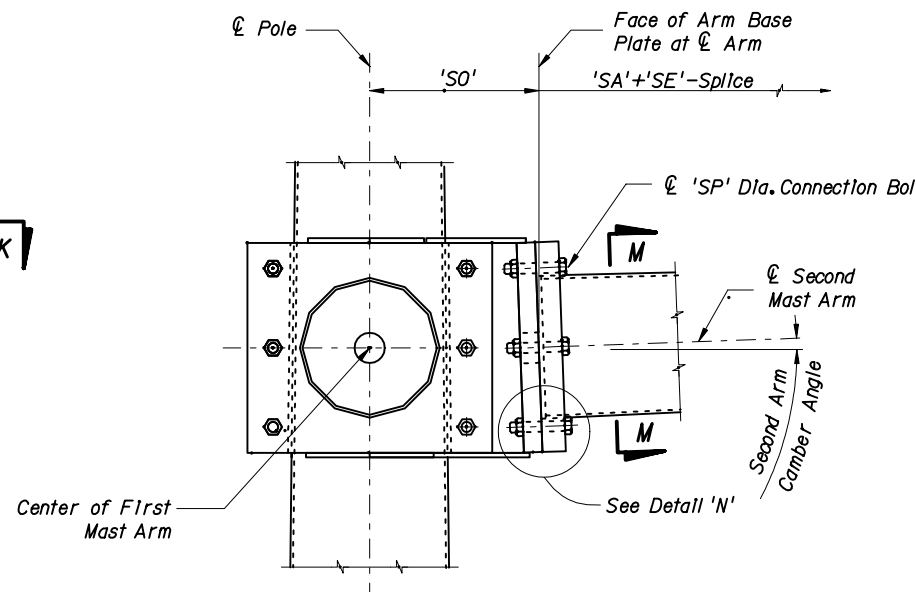


DETAIL N

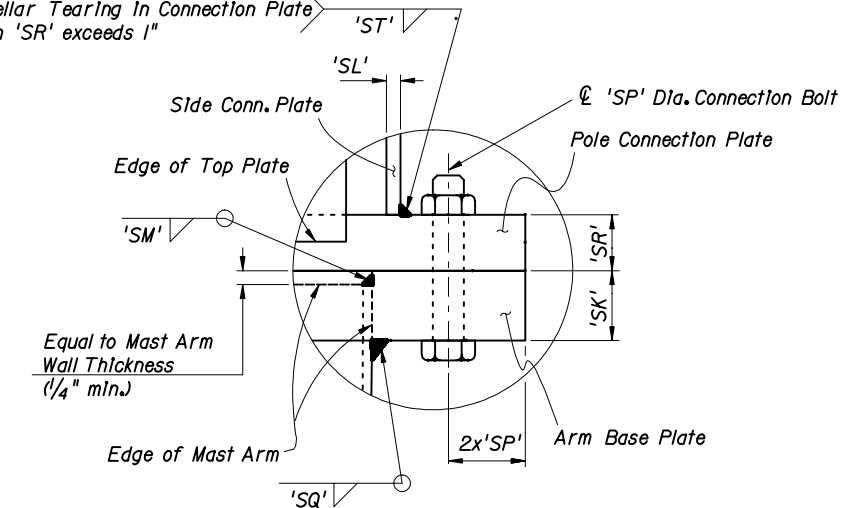
Provide Ultrasonic Testing for Lamellar Tearing in Connection Plate when 'SR' exceeds 1"



ELEVATION (Double Arm Connection)



SECTION L-L




DETAIL O

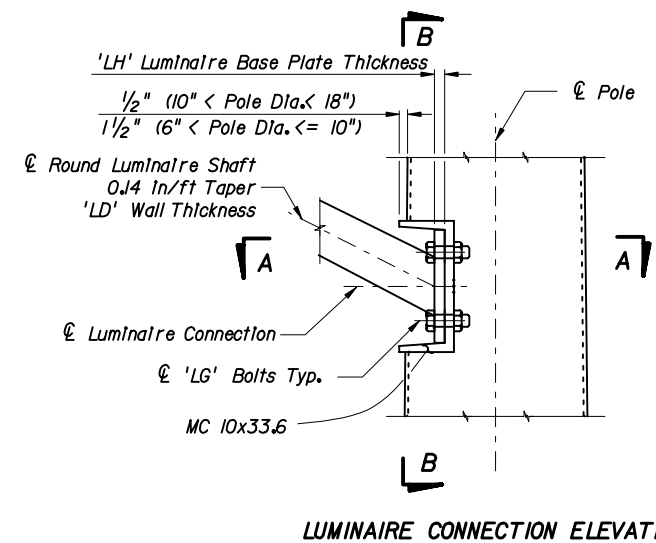
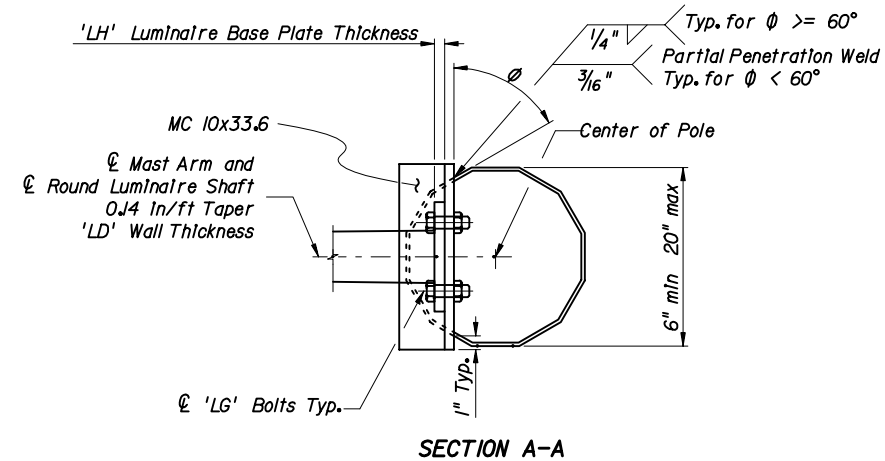
NOTE:
 1. Details shown on this sheet are for 12 sided pole sections. However, sections with more than 12 sides and round sections are permitted provided outside diameter and wall thickness are not reduced.
 2. Mast Arm and Connection Plates shall be match marked to ensure proper assembly.

TYPICAL DOUBLE ARM CONNECTION DETAILS

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

MAST ARM ASSEMBLIES

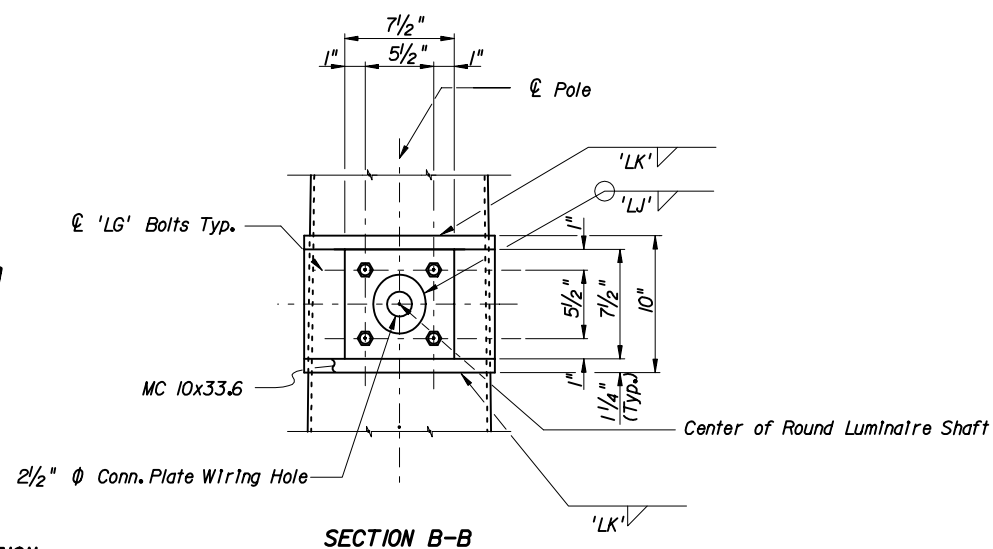
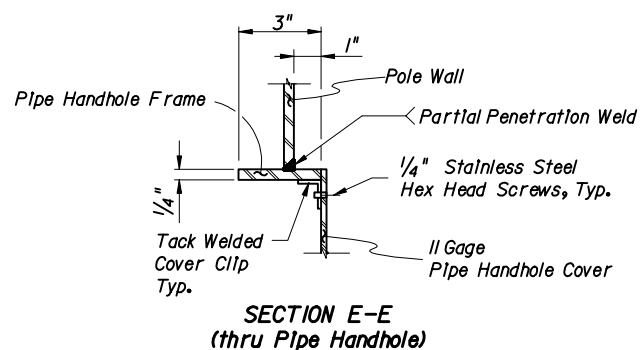
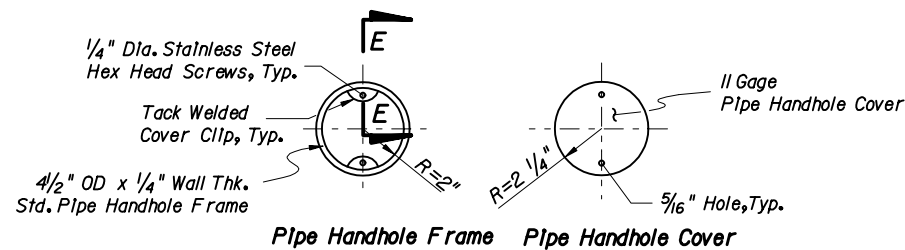
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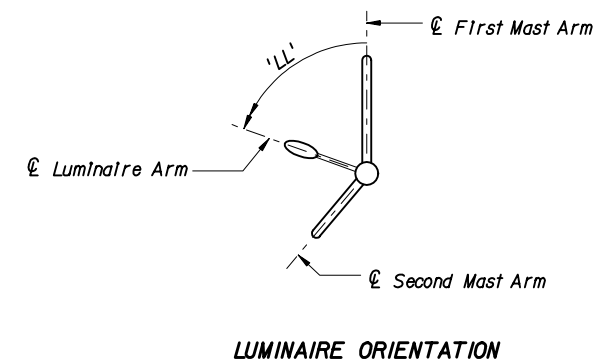
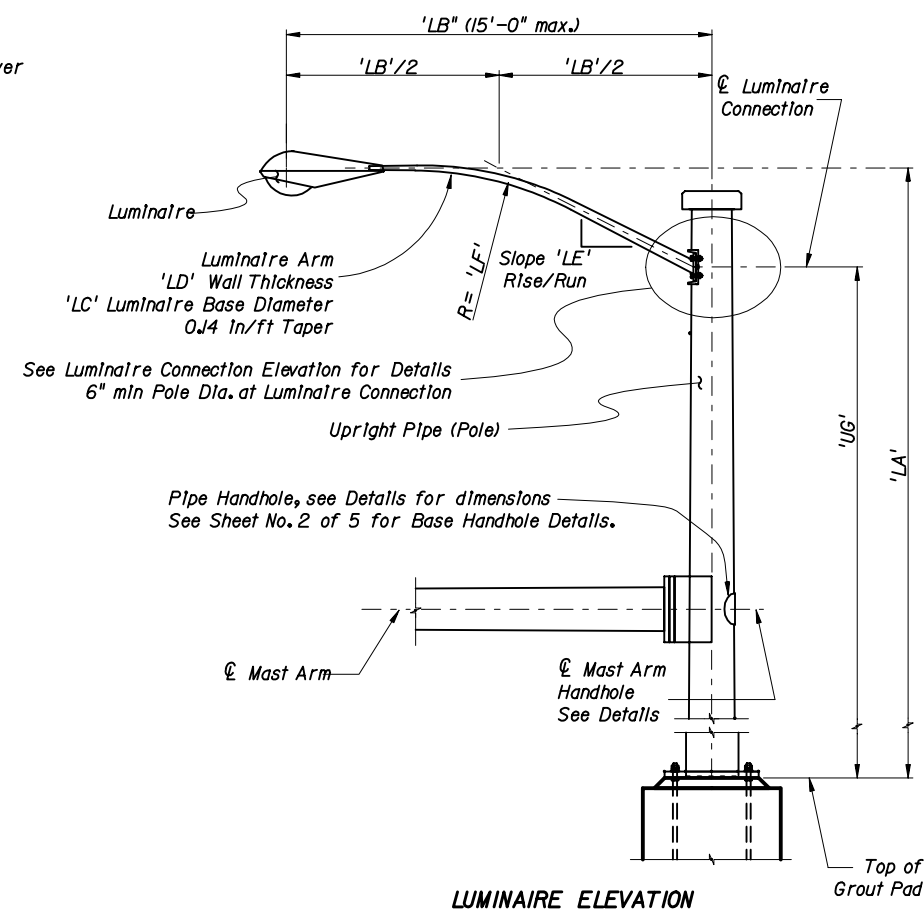
NOTE: The Pole shown on this sheet is a 12 sided section. However, sections with more than 12 sides and round sections are permitted provided outside diameter and wall thickness are not reduced

NOTES:

1. Luminaire type and Luminaire to Arm Connection Details can be found elsewhere.
2. Align Luminaire Arm with single Mast Arm or first Arm of Double Mast Arm unless indicated otherwise in plans.



NOTE: The Fabricator may substitute a 1/2" thick bent plate with the same flange width, height, and length as the MC 10x33.6 Channel section.



TYPICAL LUMINAIRE ARM AND CONNECTION DETAILS

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

MAST ARM ASSEMBLIES

Names	Dates	Approved By	Revision	Sheet No.	Index No.			
Designed By	CH	6-02	 State Structures Design Engineer					
Drawn By	CH	6-02				04	5 of 5	17745
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